LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 4 of 8

2013

Bate Stamp Numbers
00120454 - 00122915

Prepared for
Department of the Army
Longhorn Army Ammunition Plant

1976 – 2013

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS
ADMINISTRATIVE RECORD – CHRONOLOGICAL INDEX

VOLUME 4 of 8

2013

A. Title: Report - Final Cover Evaluation & Final Landfill Closure Report, LHAAP-19, C&D Landfill, Longhorn Army Ammunition Plant, Karnack, Texas
Author(s): ETTL Engineers & Consultants Inc.
Recipient: U.S. Army Corps of Engineers
Date: September 17, 2010
Bate Stamp: 00120454 – 00122123

B. Title: Memorandum for Record - Notification of Remedial Action Well Construction Completion, LHAAP-35B(37), Chemical Laboratory, Longhorn Army Ammunition Plant, Karnack, Texas
Author(s): AECOM Technical Services
Recipient: U.S. Army Corps of Engineers
Date: September 9, 2013
Bate Stamp: 00122124 – 00122126

C. Title: Memorandum for Record - Notification of Remedial Action Well Construction and Initial Enhanced In-Situ Bioremediation Completion, LHAAP-58, Former Shops Area, Longhorn Army Ammunition Plant, Karnack, Texas
Author(s): AECOM Technical Services
Recipient: U.S. Army Corps of Engineers
Date: September 30, 2013
Bate Stamp: 00122127 – 00122130

D. Title: Memorandum for Record - Notification of Remedial Action Well Construction and Soil Excavation Completion, LHAAP-50, Former Sump Water Tank, Longhorn Army Ammunition Plant, Karnack, Texas
Author(s): AECOM Technical Services
Recipient: U.S. Army Corps of Engineers
Date: September 30, 2013
Bate Stamp: 00122131 – 00122134

E. Title: Report - In Situ Microbial Bioreactor (Bio Plug) Field Test Interim Report No. 1 (Revised Nov 2013), Longhorn Army Ammunition Plant (LHAAP) Site-35B(37)
Author(s): U.S. Army Aberdeen Test Center
Recipient: U.S. Army Environmental Command
Date: July 19, 2013 (Revised November 2013)
Bate Stamp: 00122135 – 00122148

2013

F. Title: Letter - Comprehensive Land Use Control Management Plan for FY 2013 Memo/Revision Log, Longhorn Army Ammunition Plant, Karnack, Texas
Author(s): U.S. Army Corps of Engineers
Recipient: U.S. Environmental Protection Agency, Texas Commission on Environmental Quality
Date: November 18, 2013
Bate Stamp: 00122149 – 00122154

G. Title: Report - 2012 Installation Action Plan, Longhorn Army Ammunition Plant, Karnack, Texas
Author(s): U.S. Army Corps of Engineers
Recipient: U.S. Environmental Protection Agency, Texas Commission on Environmental Quality
Date: November 19, 2013
Bate Stamp: 00122155 – 00122243

H. Title: Report - Community Involvement Plan for Longhorn Army Ammunition Plant, Karnack, Texas
Author(s): PB&A, Inc.
Recipient: U.S. Army, U.S. Environmental Protection Agency, Texas Commission on Environmental Quality
Date: November 19, 2013
Bate Stamp: 00122244 – 00122330

I. Title: Report - In Situ Microbial Bioreactor (Bio Plug) Field Test Interim Report No. 2, Longhorn Army Ammunition Plant (LHAAP) Site-35B(37)
Author(s): U.S. Army Aberdeen Test Center
Recipient: U.S. Army Environmental Command
Date: November 26, 2013
Bate Stamp: 00122331 – 00122345

J. Title: Letter - Surface Water and Perimeter Well Perchlorate Data Transmittal Memorandum, Longhorn Army Ammunition Plant, Karnack, Texas
Author(s): AECOM Technical Services
Recipient: U.S. Army Corps of Engineers
Date: December 4, 2013 (This document has been revised. The final document will be presented in Volume 1 of the 2014 Administrative Record.)
Bate Stamp: 00122346 – 00122356

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS
ADMINISTRATIVE RECORD – CHRONOLOGICAL INDEX

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2013

K.	Title:	Report - 2013 Installation Action Plan, Longhorn Army Ammunition Plant, Karnack, Texas
	Author(s):	U.S. Army Corps of Engineers
	Recipient:	U.S. Environmental Protection Agency, Texas Commission on Environmental Quality
	Date:	December 12, 2013
	Bate Stamp:	00122357 – 00122453

L.	Title:	Report - Final Post-Screening Investigation Report for LHAAP-18/24, Burning Ground No. 3 and Evaporation Pond, Longhorn Army Ammunition Plant, Karnack, Texas
	Author(s):	AECOM Technical Services
	Recipient:	U.S. Army Corps of Engineers
	Date:	December 26, 2013
	Bate Stamp:	00122454 - 00122915

LHAAP-19 C&D LANDFILL
FINAL COVER EVALUATION
&
FINAL LANDFILL CLOSURE
REPORT

LONGHORN ARMY AMMUNITION PLANT
KARNACK, HARRISON COUNTY, TEXAS
Permit No. HW50195
ETTL JOB No. L214-10

Prepared For

Alamo 1
San Antonio, Texas

Environmental Chemical
Corporation
Burlingame, California

United States Army
Corps of Engineers
Tulsa District

Prepared By

ETTL Engineers & Consultants Inc.
Tyler, Texas

September 2010

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ETTL Engineers & Consultants Inc.

GEOTECHNICAL ✶ MATERIALS ✶ ENVIRONMENTAL ✶ DRILLING ✶ LANDFILLS

September 17, 2010

Greg Osuna
Alamo 1
10843 Gulfdale
San Antonio, Texas 78216

SUBJECT: Final Cover Evaluation and Final Landfill Closure Report
LHAAP-19 C&D Landfill
Longhorn Army Ammunition Plant
Permit Number HW50195
ETTL Job Number L214-10

Dear Mr. Osuna:

Submitted herein is the Final Cover Evaluation Report (FCER) and Final Landfill Closure Report (FLCR) as required by the Texas Commission on Environmental Quality for the above referenced closure area.

It is hereby certified that LHAAP-19 has been closed in accordance with the approved landfill closure plan and the standards of 30 TAC 335.8 for Risk Reduction Standard No. 3. The enclosed Final Cover Evaluation Report and Final Landfill Closure Report summarize the approved field activities.

If you have any questions concerning this report, or if we can be of further assistance during the closure process, feel free to contact us.

Sincerely,
ETTL Engineers & Consultants Inc.

Russell W. Gibson, P.E.
Project Manager

STATE OF TEXAS
RUSSELL W. GIBSON
104979
LICENSED
PROFESSIONAL ENGINEER

ETTL
ENGINEERS & CONSULTANTS
F-3208

September 17, 2010

C. Brandon Quinn, P.E., P.G., C.P.G.
Vice President
Manager of Engineering Services

STATE OF TEXAS
C. BRANDON QUINN
72441
REGISTERED
PROFESSIONAL ENGINEER

ETTL
ENGINEERS & CONSULTANTS
F-3208

September 17, 2010

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FCER and FLCR
LHAAP-19 C&D Landfill
Longhorn Army Ammunition Plant
Karnack, Harrison County, Texas
Permit Number HW50195

Submitted to

Greg Osuna
Alamo 1
10843 Gulfdale
San Antonio, Texas 78216

Prepared by

ETTL Engineers & Consultants Inc.
Tyler, Texas

September 2010

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1.0 INTRODUCTION

The purpose of this Final Landfill Closure Report (FLCR) is to document the activities associated with final closure of the LHAAP-19 Construction and Debris Landfill.

The final cover system comprises a minimum 18-inch thick compacted clay cap and topsoil over the Class II Industrial Non-Hazardous Waste Disposal Area. The FCER form (ETTL 102704) is located in **Section 2**. The Final Landfill Closure and Final Cover Evaluation Report are provided in **Section 3**. Each section is marked with a numbered divider tab and the electronic version of this report is bookmarked. The remaining sections support the FLCR and FCER.

A narrative description of the activities associated with the Final Landfill Closure and the Final Landfill Cover evaluation is included in **Section 3.0**. Supporting documentation including resumes and test results is also provided as a part of this narrative description.

The basis for the activities performed in closing this landfill was the Longhorn Army Ammunition Plant Closure/Post-Closure Plan, dated February 1990. This document is included in **Section 4.0** of this report.

Section 5.0 of this FLCR documents the LHAAP-19 Post Closure Care Plan which includes periodic monitoring of the site and required maintenance.

In addition to the FCER, this FLCR includes the final assessment report, in **Section 6.0**, which documents the wastes contained within this landfill and the potential for risks to human and environmental health and safety. From the landfill evaluation dated 1988, and the buildings description dated 2004, it is concluded that all of the materials deposited in this landfill were what is normally classified as Construction and Demolition Debris (C&D) consisting of wood and metal studs, corrugated metal walls and roofs, concrete rubble, steel re-bar, dry-wall, transite siding, cardboard, Class 2 paper, packing, plastics, foil, wood packaging, wood debris, bricks, cement and other inert constituents. Records provided by the site owner indicate that hazardous materials such as friable asbestos were removed from this site and disposed of in other permitted landfills. A certification from the facility owner documenting process knowledge of the wastes in the landfill as well as descriptions of the demolished buildings is included in **Section 7.0**. Based on this information and certification by the owner, this landfill is classified as Non-Hazardous Class 2.

As a part of the final assessment, monitoring wells were installed around the perimeter of the landfill. The wells were plugged after all monitoring was completed and final closure of the landfill was begun. The well closure reports are included with this FLCR in **Section 8.0**.

As per 30 TAC 335.8, this landfill is being closed under Risk Reduction Standard Number 3. In accordance with this rule, this area will be deed recorded as a closed Industrial and Solid Waste Landfill with Harrison County, Texas. A copy of the deed wording is included with this report as is a survey showing the boundary of LHAAP-19, in **Section 9.0** and **Section 10.0**, respectively.

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2.0 FINAL COVER EVALUATION FORM

This form has been completed by a qualified, registered, independent third-party Professional Engineer experienced in Geotechnical Engineering and soils testing or a Graduate Geologist whose education and/or experience is in engineering geology and geotechnical soils testing. The evaluator must have experience with the proper methods of constructing soil liners and be able to interpret these geotechnical test results to ensure they meet the requirements of the rules of the Texas Commission on Environmental Quality.

The purpose of the Final Cover Evaluation requirement is to assure that ground water, as defined in the Commission's rules, is protected from contamination resulting from the land disposal or storage of solid waste. This Cover Evaluation is required to provide an opportunity for a professional geotechnically-qualified individual to inspect the area receiving the cover and to document that the infiltration layer and/or geomembrane liners meet the Commission's regulatory requirements.

Data and information required in the questionnaire are to provide the basis of the evaluation made by the Professional of Record (POR). This report is to be supplemented with those quality control tests detailed in the permit's Soils and Liner Quality Control Plan and/or Closure Plan and shall be the basis of documentation of the quality control and acceptance of the final cover system.

Attach additional sheets as needed, and on each sheet identify the appropriate part and paragraph number for each reference.

****

PART A. SITE IDENTIFICATION

Permittee: U.S. Army/Longhorn Army Ammunition Plant

Permit No: HW50195

Operational Classification Type: Class II Industrial Non-Hazardous Waste

County: Harrison

PART B. GENERAL INFORMATION

1. What type of final cover system is required by the Closure Plan? The final cover system consists of a minimum 18 inch thickness of compacted soil liner over the waste.

2. Do any of the units have constructed bottom liners? No bottom liner exists for this landfill.

PART C. DESCRIPTION OF AREAS CURRENTLY BEING EVALUATED

1. A copy of the landfill general site plan and final cover plan showing the areas of the landfill site currently under evaluation is included in Section 4.

2. Existing fill evaluation location and area of coverage:

   a. Area identification of this evaluation (give station, grid coordinates, boundary limits of this evaluation) N 6951971.54 E 3316288.74, N 6952073.02 E 3316783.04, N 6951990.05 E 3316892.31, N 6951912.60 E 3316967.64, N 6951802.54 E 3316964.63, N 6951683.85 E 3316940.55, N 6951350.41 E 3316837.39, N 6951354.57 E 3316543.31, N 6951661.10 E 3316413.50

   b. Total number of plan square feet of cover evaluated: 344,560 ft.^{2} (7.91 acres)

PART D. SOIL COVER EVALUATION RESULTS

1. Were all the soil tests and the rate of testing performed in accordance with the applicable sections of the specifications? Yes.

2. Dates final cover system was under construction. June 2009 to August 2009.

3. Dates the Professional of Record (POR) visited the site. C. Brandon Quinn, P.E., P.G., CPG was on site ? July 8, 2009

4. Names and dates of the POR's representatives and dates on site. Mr. Clint Richardson was on site July 14, August 7, August 25 and August 26, 2009

5. Was the liner construction completed prior to your final field visit? Yes

6. How were sample holes, and nuclear-density gauge pin/probe holes backfilled? Bentonite was poured in all test holes made in the soil cover.

7. Field test and laboratory test data concerning the soil cover construction can be found in Sections 3.2 through 3.4.

****

SIGNATURE OF THE PROFESSIONAL OF RECORD

AFFIX SEAL BELOW IF A PROFESSIONAL ENGINEER

Document by

ETTL
ENGINEERS & CONSULTANTS
F-3208

September 17, 2010
(DATE SIGNED)

(SIGNATURE)

C. Brandon Quinn, P.E., P.G., C.P.G.
(TYPED OR PRINTED NAME)

Vice President
(TITLE)

ETTL Engineers & Consultants Inc.
(COMPANY OR BUSINESS NAME)

1717 East Erwin Street
(ADDRESS)

Tyler, Texas 75702
(CITY, ZIP CODE)

PHONE NUMBER (903) 595-4421

FAX NUMBER (903) 595-6113

Note: A professional engineer must be registered in Texas.

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SIGNATURE OF PERMITTEE

I have read and fully understand the findings of this FCER submittal.

Rosem. Zeiler
(SIGNATURE)

Rose M. Zeiler
(TYPED OR PRINTED NAME)

LHAAP Site Manager
(TITLE)

31 October 2013
(DATE SIGNED)

LONGHORN AAP
(BUSINESS NAME)

P.O. Box 220
(ADDRESS)

RATCLIFF AR 72951
(CITY, ZIP CODE)

PHONE NUMBER 479-635-0110

FAX NUMBER 479-635-0112
(PHONE NUMBER AND FAX NUMBER
(PHONE NUMBER AND FAX NUMBER
IF YOU WISH PRELIMINARY
NOTIFICATION IN THIS MATTER)

IMPORTANT: THREE SIGNED, SEALED, AND DATED COPIES OF THIS FORM, WHICH INCLUDES 1 ORIGINAL COPY AND ALL ATTACHMENTS (DRAWINGS, COMMENTS, ETC.) MUST BE PROVIDED TO THE TCEQ.

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3.0 FINAL LANDFILL CLOSURE AND FINAL COVER EVALUATION REPORT

Authorization and Purpose

The purpose of this study was to observe, evaluate, and verify the landfill cover construction and thickness for the LHAAP-19 C&D Landfill. The evaluation consisted of on-site inspections, field and laboratory testing, and documentation of the results in a written report according to the approved landfill closure plan and the standards of 30 TAC 335.8 for Risk Reduction Standard No. 3. The Final Cover Evaluation Report (FCER), included herein, is a part of this Final Landfill Closure Report.

Site Location

The LHAAP is located in the northeast corner of Harrison County, Texas approximately 14 miles northeast of Marshall, Texas, and approximately 40 miles west of Shreveport, Louisiana. A Facility Location Map is included in the Final Assessment Report attached hereto. LHAAP occupies approximately 8,500 acres between State Highway 43 and the western shore of Caddo Lake. LHAAP is inactive and is scheduled to be transferred to United States Fish and Wildlife Service (USFWS) for inclusion in the Caddo Lake National Wildlife Refuge.

Site History

As stated in the Final Assessment report, a C&D landfill was identified during an environmental assessment conducted at the LHAAP facility under the Resource Conservation Recovery Act (RCRA) in 1988. The location of the C&D landfill (LHAAP-19) is shown in Figure 2. The C&D landfill, designated LHAAP-19, covers a 7.91 acre tract of land. The maximum depth of the landfill is believed to be less than 15 feet below ground surface.

The C&D landfill was sporadically active from 1985 until recent closure activities were conducted. The C&D landfill was permitted by rule to receive non-friable asbestos and other demolition debris. The monthly disposal rate ranged from 35 to 400 cubic yards of waste. The C&D landfill (formerly referred to as LHAAP-26) was evaluated in 1988. A Preliminary Review Unit Checklist, completed in 1988, states that a trench was excavated to receive one week's waste and was covered at the end of each week. The Statement of Objectives (SOO) states that "recent operations included the demolition debris from production area buildings that were razed from 1999 to 2006".

Project Description

The final cover system consists of 18 inches of compacted soil cover overlaid with topsoil capable of sustaining plant growth. As a part of the final closure of this facility, three (3) groundwater monitoring wells installed during the field investigation were removed and plugged in accordance with State of Texas requirements.

Project Participants

Project management for ETTL Engineers and Consultants Inc. included the Professional of Record (POR), Mr. C. Brandon Quinn, P.E., P.G., C.P.G., Vice President and Manager of Engineering Services; Mr. Russell Gibson, P.E., Project Manager, and the Qualified Engineering Technician, Clint Richardson, NICET Level IV Construction Materials Testing. A copy of each participant's resume is located in **Section 3.1**.

Plans and Specifications

The POR has reviewed the technical specifications and drawings related to the construction and testing of the soil cover. All work for this study was conducted in accordance with the specific requirements of the project, the landfill closure plan and the requirements of the Texas Commission on Environmental Quality.

Subgrade Inspection
The POR and his representative performed subgrade inspections prior to construction of the soil cover on July 8, 2009. Proof-rolling operations conducted on the subgrade did not reveal any soft areas. Groundwater was not observed seeping from the subgrade.

The subgrade surface was surveyed by Ace Surveying, Inc. of Devine, Texas prior to placement of the first lift of clay cap material to document and verify proper subgrade elevations according to the plans and specifications. The subgrade was scarified a minimum of six inches to help provide bonding between the subgrade soils and next lift of soil cover.

Preconstruction Testing – Soil Cover Conformance Samples
All material used to construct the soil cover originated from on-site or from a nearby off-site borrow pit. Any material proposed for the soil cover was sampled for Atterberg Limits and Percent Passing the No. 200 Sieve, and moisture-density relationship (ASTM D 698). A total of three conformance samples were collected and tested for cover construction. One sample was taken from the existing on-site cap material and two from borrow material. See **Section 3.2** for test results.

Soil Cover Construction
A third party licensed surveyor verified the correct subgrade elevations prior to placement of the additional cover. The cover was constructed in parallel or monolithic lifts. Dump trucks were utilized to transport the material from the borrow location to the project site. Caterpillar tracked dozers were used to spread the soil in uniform layers not exceeding nine inches loose. A Ford water truck was utilized to moisture condition the soil cover as necessary. An Ingersoll-Rand Pad Foot compactor was used to compact each layer to a minimum of 95% of the maximum Proctor density.

If inclement weather were forecast, the top of the lift under construction would be either bladed smooth to seal the surface. The top of each lift was scarified prior to the placement of the next lift. Appropriate drainage measures were used to prevent excessive ponding of water on the cover under construction.

Soil Cover Quality Assurance
The Qualified Engineering Technician, under the direct supervision of the POR, performed field-testing of the soil cover after completion of each compacted lift. Representative borrow samples were obtained and tested as stated under the Preconstruction Testing - Liner Conformance Samples section. Three (3) ASTM D 698 proctors were used at this site for the cover material.

In-place moisture-density tests were performed at a rate of one test per 10,000 square feet for each six inch compacted lift with a nuclear gauge calibrated daily (ASTM D 2922). Each test location is referenced on a drawing for each of the three constructed lifts.

LHAAP-19 soil cover was constructed monolithically and evaluated as one area that measured approximately 8 acres. A total of 33 field density-moisture content tests were taken for the subgrade and each six-inch compacted lift. The field tests and laboratory samples tested within soil cover met or exceeded the requirements of the project specification. Results of the laboratory tests are shown in **Section 3.3** on each individual test report. Locations of tests are noted on drawings for each lift and follow the test reports. The test locations were provided by the client according to the grid established by the independent surveyor.

Soil Cover Thickness Verification
The total thickness of soil cover required by the project specifications is 18 inches inclusive of existing cover material and imported material. The independent surveyor established 40 locations within the project limits for cover thickness verification tests in accordance with the project specifications. The cover

thickness testing was witnessed by personnel from Alamo 1, Texas Commission on Environmental Quality and the United Stated Army Corps of Engineers.

At each of the 40 locations, ETTL's technician utilized a truck mounted soil boring rig to push a 24 inch Shelby tube into the soil cover. The total soil cover thickness was checked by measuring either the depth to waste material in the hole or by measuring the recovered soil sample. After the measurement was made, Alamo 1 personnel plugged each hole with bentonite and backfilled according to project requirements. Please reference **Section 3.4** for documentation of the soil cover thickness measurements.

Groundwater Monitoring Wells

Groundwater monitoring wells were installed and monitored as a part of the final assessment of the LHAAP-19 C&D Landfill. This assessment and associated documentation is included in the appendix to this report. After monitoring activities were completed, the installed monitoring wells were plugged under the supervision of a licensed professional geologist according the rules of the State of Texas. Monitoring well plugging reports are included in **Section 8.0** of this report. Well casing was removed from all wells and cement grout was pumped into the wells using a tremie pipe from the bottom up. The plugs were then topped off with grout and covered with approximately 6 inches of soil.

Summary

Included in **Section 3.3** and **3.4**, respectively, are all test results for in place moisture/density testing and cover thickness verification testing.

In addition, the Final Assessment Report is included in **Section 6.0**. The Final Landfill Closure Assessment Report dated June 2010 stated the following conclusions: "The impact of any release from the landfill has been minimal. The concentrations detected in the environmental media (soil and ground water) do not exceed the MSCs for Risk Reduction Standard No. 2 based on residential land use. No further action for soil and groundwater is recommended." However, since the wastes were left in place and an engineering control (i.e., a cap) was required, this landfill closure meets the requirements of Risk Reduction Standard Number 3 – Closure/Remediation with Controls and will be deed recorded as appropriate for this standard. The controls for this closure being the compacted soil cap and topsoil cover.

The results of field observations and field and laboratory testing indicate that the soil cover has a minimum thickness of 18 inches and meets the intent of the plans and specifications. Based on the observations made during the testing and evaluation of the final cover system, and reviewing the test results; the cover system meets or exceeds the requirements of 30 TAC 335.8 for Risk Reduction Standard 3 and the landfill closure plan.

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3.1 Resumes

C. Brandon Quinn, PE, CPG, PG

Vice President and Manager of Engineering Services

AREAS OF EXPERTISE
Geotechnical Engineering
Engineering Geology

REGISTRATION
Professional Engineer: Texas, No. 72441
Certified Professional Geologist: CPG No. 8664
Registered LPST, CAPM 00262

EDUCATION
B.S. Engineering Geology
Texas A&M
1982

B.S. Mining Engineering
Texas A&M
1984

PROFESSIONAL MEMBERSHIPS
American Institute of Professional Geologists

American Society of Professional Engineers

National Groundwater Association

PROFESSIONAL HISTORY

Vice President
ETTL Engineers and Consultants, Inc.
2005-Present

Senior Project Manager
ETTL Engineers and Consultants, Inc.
1990-2005

Manager of Environmental Services, ETTL Engineers and Consultants, Inc.
1988-1990

Branch Manager, Longview Office, ETTL Engineers and Consultants, Inc.
1986-1988

Field Engineer
Welex, A Halliburton Company
1984-1986

EXPERIENCE

Mr. Quinn has over 25 years of experience in civil and environmental projects in the areas of geotechnical engineering, construction materials testing, engineering geology, hydrogeology, and environmental geology and engineering; design and quality control testing in FAA asphaltic concrete runways and taxiways; construction of liners in municipal landfills, groundwater monitoring and remediation systems; and design of asbestos abatement projects in occupied multi-story structures.

During his employment with ETTL, Mr. Quinn has had experience with many geotechnical projects for TxDOT; geotechnical investigations of solid waste landfills, water and wastewater treatment plants, and single and multi-storied facilities; design of groundwater and in-situ soil remediation systems for leading underground storage tank sites; design of asbestos abatement projects in public schools, industrial facilities and commercial buildings; field investigation and evaluation of RCRA and State Superfund sites. In the area of environmental site assessments, he has carried out Phase I and Phase II investigations, and Phase III site remediations of industrial facilities, commercial properties, agricultural properties, cemeteries, fueling facilities, and oil and gas exploration sites.

Landfill experience includes: permit modifications, alternate liner demonstrations, geotechnical and hydrogeological investigations, Professional of Record for the construction quality assurance (CQA) inspection and testing involving in-situ soil liners, constructed clay liners, geosynthetic clay liners, geomembrane liners, leachate collection systems, final cover systems and landfill gas extraction systems. Projects have included services for:

Texas Eastman Company
Hazardous Waste Landfill, Longview, Texas: Cells 1 & 3
Sanitary Landfill, Longview, Texas: Phase G

City of Cleburne
Cleburne Sanitary Landfill, Cleburne, Texas
Sector 5 Closure

Allied Waste
Pine Hill Landfill, Kilgore, Texas: Cells 23, 24
Greenwood Farms, Tyler, Texas: Cells 6B, 7A, 7B, 8A, 8B, 9A, 10A
Trinity Oaks, Mesquite, Texas: Cells 2, 3
Royal Oaks, Jacksonville, Texas: Cell 3, 4, 5A
Pleasant Oaks, Mt. Pleasant, Texas: Cell 1, 11A

Luminant Martin Lake (formerly TXU)
Tatum, Texas
Fly Ash Permanent Disposal Ponds 1-3

Russell W. Gibson, PE, M.ASCE

Project Manager

AREAS OF EXPERTISE
Geotechnical Engineering
Construction Materials Testing
Civil Engineering

REGISTRATION
Professional Engineer:
Texas, No. 104979
Arkansas, No. 14101

EDUCATION
B.S. Civil Engineering
Texas A&M
1997

PROFESSIONAL HISTORY

Project Manager
ETTL Engineers and Consultants, Inc.
April 2009-Present

Quality Control Manager
Carothers Construction
2008-2009

Civil Quality Control
B.L. Harbert International
2008

Design Engineer
Johnson and Pace, Inc.
2005-2007

Design Engineer
Guice Engineering Sciences
2004-2005

Assistant Project Manager
Pape-Dawson Engineers, Inc.
2003-2004

Design Engineer
HEC – Hart Engineering Co., Inc.
2000-2003

Graduate Engineer
Schaumburg and Polk Inc.
1999-2000

Design Engineer
Stokes and Associates
1998-1999

EXPERIENCE

Mr. Gibson has over ten years of experience in all phases of civil engineering design and construction in the areas of geotechnical engineering, construction materials testing, roadway design, residential and commercial developments, construction inspection and quality control.

In his service as a project manager for ETTL, Mr. Gibson has concentrated in the area of geotechnical engineering as it relates to foundation and earthwork recommendations including both shallow and deep foundation elements. The projects for which he has been responsible have included smaller residential and larger commercial and industrial facilities. In addition, he has performed and/or assisted with foundation designs and complex settlement analysis for bridges and large industrial facilities as well as elevated and ground storage tanks.

In past positions, Mr. Gibson has worked as Quality Control representative for general contractors on USACE construction projects. These duties include, but were not limited to coordination, observation and inspection of earthwork and foundation construction for projects in the Louisville and Fort Worth Districts.

Additional civil engineering experience includes commercial and residential site designs as well as water distribution, wastewater collection and treatment systems.

Clinton H. Richardson

Manager of ETTL Longview Materials Testing Laboratory & Branch Office

AREAS OF EXPERTISE
Construction Materials and Geotechnical Testing

PROFESSIONAL MEMBERSHIPS
National Institute of Certification of Engineering Technologies, Member No.74226

REGISTRATION
NICET: Level IV Construction Materials Testing. Subfields: Soils, Concrete, Asphalt

NICET: Level IV Highway Transportation. Subfield: Materials

NICET: Level III Geotechnical Engineering Technology. Subfields: Construction, Exploration, Laboratory

U.S. DOT & IATA Hazmat Certified

EDUCATION
Southeastern Louisiana University, 1980-1981: Machine Tool Technology

Troxler Electronic Laboratories, Inc., Feb. 1985: Training Course for Use of Nuclear Testing Equipment

National Lime Assoc., Oct. 1987: Lime Stabilization Workshop

Troxler Electronic Laboratories, Inc., Nov. 2004: Radiation Safety Officer Training Course

PROFESSIONAL HISTORY
ETTL Engineers & Consultants Inc., Longview Branch Manager, 2005 to present

Terracon; Laboratory and Field Services Manager: 2004-2005

Pickett-Jacobs Consultants Inc., Lufkin, Texas (now a Terracon company); Senior Technician: 1984-2004

EXPERIENCE

Mr. Richardson has had more than 20 years of experience with numerous and varied construction materials engineering/testing and geotechnical projects. He is highly familiar with both field and laboratory testing procedures, including supervising and training laboratory and CMT personnel. He also has provided on-site testing and observation services on major construction projects and those requiring special testing procedures. His project experience has included universities and schools, airports and pavements, retail facilities, hospitals and health-care facilities, detention ponds and dams, municipal water and wastewater treatment facilities, solid waste landfills, and office buildings.

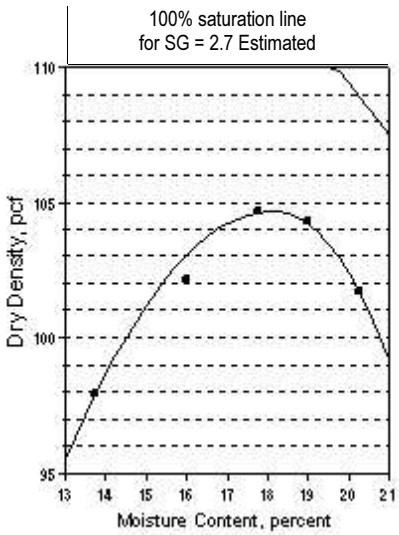
3.2 Proctor Results

Home Office - 1717 East Erwin Street
Tyler, Texas 75702-6398
Office: (903) 595-4421 Lab: (903) 595-6402 Fax: (903) 595-6113
Area Offices
210 Beech Street Texarkana, AR 71854 (870) 772-0013
707 West Cotton St. Longview, TX 75604 (903) 758-0402

Acct ID:	ALAMO1	File ID: C4261-095	Date Sampled: 06/05/2009
Report Date:	07/13/2009		Sampled By: Client
Project:	LHAAP C&D Landfill Cover, Karnack, Texas		By Order Of: Client
Location:	Pit Stockpile		Order Number:
Client:	Alamo 1, San Antonio, Texas		
Contractor:	Pierce Construction, Inc., Beckville, TX		
REPORT:	**Standard Proctor W/Soil Class**		LAB NO: L-2363
Material:	Soil		Test Method: See Below

TEST RESULTS

Report No: 2-615-000002
Page 1 of 1



% Moisture		Dry Density Lbs./Cu.Ft.	
13.7		97.8	
16.0		102.2	
17.8		104.7	
20.3		101.6	
19.0		104.3	
18.2	**Optimum**	**104.7**	**Maximum**

Sieve	% Passing
Sieve No. 10:	100
Sieve No. 40:	99.6
Sieve No. 200:	75.8

Color: Tan & Gray
Description: Lean Clay with Sand

Liquid Limit: 49
Plastic Limit: 18
Plasticity Index: 31

Standard Method: A
Desc of Rammer: Mechanical
Preparation Method: Moist
Remarks: **These tests were performed solely at the request of the Client for his own use. No warranties are expressed or implied regarding the suitability of the site for construction or whether or not the reported data represents all conditions of the site.**
Test Method (As Applicable): ASTM D2487, D698

Respectfully Submitted,
ETTL Engineers & Consultants, Inc.

C. Brandon Quinn

C. Brandon Quinn, P.E.

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

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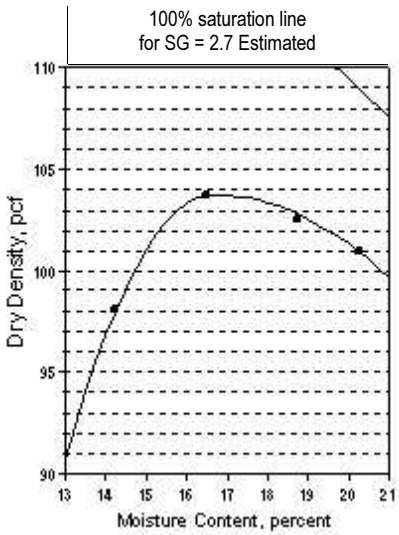
707 West Cotton St. Longview, TX 75604 (903) 758-0402

Acct ID:	ALAMO1	File ID: C4261-095	Date Sampled: 07/01/2009
Report Date:	07/17/2009		Sampled By: Client
Project:	LHAAP C&D Landfill Cover, Karnack, Texas		By Order Of: Greg Osuna
Location:	On Site-Exisiting Clay Cap		Order Number:
Client:	Alamo 1, San Antonio, Texas		
Contractor:	Pierce Construction, Inc., Beckville, TX		
REPORT:	**Standard Proctor W/Soil Class**		LAB NO: L-2386
Material:	Soils		Test Method: See Below

TEST RESULTS

Report No: 2-615-000003
Page 1 of 1



% Moisture	Dry Density Lbs./Cu.Ft.
14.3	98.3
16.4	103.7
18.8	102.5
20.2	101.0
16.7 Optimum	**103.7 Maximum**

Sieve	% Passing
Sieve No. 10:	100
Sieve No. 40:	97
Sieve No. 200:	78.5

Color: Tan & Grey
Description: Lean Clay

Liquid Limit: 47
Plastic Limit: 18
Plasticity Index: 29

Standard Method: A
Desc of Rammer: Mechanical
Preparation Method: Moist
Remarks: **These tests were performed solely at the request of the Client for his own use. No warranties are expressed or implied regarding the suitability of the site for construction or whether or not the reported data represents all conditions of the site.**
Test Method (As Applicable): ASTM D2487, D698

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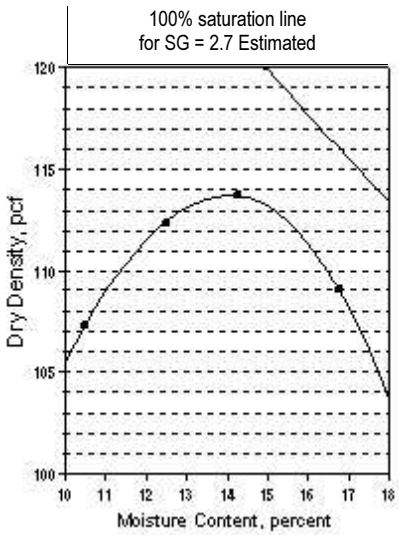
707 West Cotton St. Longview, TX 75604 (903) 758-0402

Acct ID:	ALAMO1	File ID: C4261-095	Date Sampled: 07/15/2009
Report Date:	07/30/2009		Sampled By: Clint Richardson
Project:	LHAAP C&D Landfill Cover, Karnack, Texas		By Order Of: Greg Osuna
Location:	On Site		Order Number:
Client:	Alamo 1, San Antonio, Texas		
Contractor:	Pierce Construction, Inc., Beckville, TX		
REPORT:	**Standard Proctor W/Soil Class**		LAB NO: L-2394
Material:	Soil		Test Method: See Below

TEST RESULTS

Report No: 2-615-000005
Page 1 of 1



% Moisture	Dry Density Lbs./Cu.Ft.
10.5	107.3
12.4	112.3
14.2	113.7
16.8	108.9
14.1 Optimum	**113.7 Maximum**

Sieve	% Passing
Sieve No. 4:	100
Sieve No. 40:	87.5
Sieve No. 200:	56.3

Color: Reddish Tan
Description: Sandy Lean Clay

Liquid Limit: 30
Plastic Limit: 15
Plasticity Index: 15

Standard Method: A
Desc of Rammer: Mechanical
Preparation Method: Moist
Remarks: These tests were performed solely at the request of the Client for his own use. No warranties are expressed or implied regarding the suitability of the site for construction or whether or not the reported data represents all conditions of the site.
Test Method (As Applicable): ASTM D2487, D698

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3.3 In-Place Density Reports

Home Office - 1717 East Erwin Street
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Area Offices
210 Beech Street Texarkana, AR 71854 (870) 772-0013
707 West Cotton St. Longview, TX 75604 (903) 758-0402

Acct ID: ALAMO1 File ID: C4261-095 Date Sampled: 07/14/2009
Report Date: 07/30/2009 Sampled By: C. Richardson
Project: LHAAP C&D Landfill Cover, Karnack, Texas By Order Of: Greg Osuna
Location: Existing Cover Cap - See Drawing Order Number:
Client: Alamo 1, San Antonio, Texas
Contractor: Pierce Construction, Inc., Beckville, TX

REPORT: **Soil Densities** LAB NO:
Test Method: See Below

TEST RESULTS

Report No: 2-615-000006
Page 1 of 2

Material: Tan Gray Lean Clay Required: NG 95

Test No	Lift	Location	Wet Density	Dry Density	Percent Moisture	Percent Proctor Density	Proctor No	Comments
2	Subg	Existing Cover Cap - See Drawing	118.1	100.7	17.3	97.1	L-2386	
8	Subg	Existing Cover Cap - See Drawing	114.5	105.3	8.7	101.5	L-2386	
9	Subg	Existing Cover Cap - See Drawing	114.2	103.3	10.6	99.6	L-2386	
10	Subg	Existing Cover Cap - See Drawing	116.2	104.3	11.4	100.6	L-2386	
11	Subg	Existing Cover Cap - See Drawing	119.9	105.9	13.2	102.1	L-2386	
12	Subg	Existing Cover cap - See Drawing	113.9	103.5	10.0	99.8	L-2386	
13	Subg	Existing Cover Cap - See Drawing	118.1	102.7	15.0	99.0	L-2386	
14	Subg	Existing Cover Cap - See Drawing	110.9	99.4	11.6	95.9	L-2386	
16	Subg	Existing Cover Cap - See Drawing	117.9	100.3	17.5	96.7	L-2386	
20	Subg	Existing Cover Cap - See Drawing	119.0	104.9	13.4	101.2	L-2386	
22	Subg	Existing Cover Cap - See Drawing	112.2	100.8	11.3	97.2	L-2386	
23	Subg	Existing Cover Cap - See Drawing	122.4	105.0	16.6	101.3	L-2386	
24	Subg	Existing Cover Cap - See Drawing	113.5	104.7	8.4	101.0	L-2386	
25	Subg	Existing Cover Cap - See Drawing	116.0	100.9	15.0	97.3	L-2386	
27	Subg	Existing Cover Cap - See Drawing	120.0	103.9	15.5	100.2	L-2386	
32	Subg	Existing Cover Cap - See Drawing	115.5	105.2	9.8	101.4	L-2386	

Material: Tan Reddish Sandy Clay W/Gravel Required: NG 95

Test No	Lift	Location	Wet Density	Dry Density	Percent Moisture	Percent Proctor Density	Proctor No	Comments
1	Subg	Existing Cover Cap - See Drawing	120.2	113.1	6.3	99.5	L-2394	
3	Subg	Existing Cover Cap - See Drawing	125.0	113.7	9.9	100.0	L-2394	
4	Subg	Existing Cover Cap - See Drawing	130.1	112.6	15.5	99.0	L-2394	
5	Subg	Existing Cover Cap - See Drawing	127.1	113.9	11.6	100.2	L-2394	
6	Subg	Existing Cover Cap - See Drawing	129.1	115.5	11.8	101.6	L-2394	
7	Subg	Existing Cover Cap - See Drawing	124.8	114.8	8.7	101.0	L-2394	
15	Subg	Existing Cover Cap - See Drawing	127.0	113.9	11.5	100.2	L-2394	
17	Subg	Existing Cover Cap - See Drawing	124.0	113.8	9.0	100.1	L-2394	

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Area Offices
210 Beech Street Texarkana, AR 71854 (870) 772-0013
707 West Cotton St. Longview, TX 75604 (903) 758-0402

Acct ID: ALAMO1 File ID: C4261-095 Date Sampled: 07/14/2009
Report Date: 07/30/2009 Sampled By: C. Richardson
Project: LHAAP C&D Landfill Cover, Karnack, Texas By Order Of: Greg Osuna
Location: Existing Cover Cap - See Drawing Order Number:
Client: Alamo 1, San Antonio, Texas
Contractor: Pierce Construction, Inc., Beckville, TX

REPORT: **Soil Densities** LAB NO:
Test Method: See Below

TEST RESULTS Report No: 2-615-000006
Page 2 of 2

Material: Tan Reddish Sandy Clay W/Gravel Required: NG 95

Test No	Lift	Location	Wet Density	Dry Density	Percent Moisture	Percent Proctor Density	Proctor No	Comments
18	Subg	Existing Cover Cap - See Drawing	125.2	114.3	9.5	100.5	L-2394	
19	Subg	Existing Cover Cap - See Drawing	118.3	109.6	7.9	96.4	L-2394	
21	Subg	Existing Cover Cap - See Drawing	127.1	110.0	15.5	96.7	L-2394	
26	Subg	Existing Cover Cap - See Drawing	120.0	110.6	8.5	97.3	L-2394	
28	Subg	Existing Cover Cap - See Drawing	122.2	111.7	9.4	98.2	L-2394	
29	Subg	Existing Cover Cap - See Drawing	124.4	113.1	10.0	99.5	L-2394	
30	Subg	Existing Cover Cap - See Drawing	121.5	109.9	10.6	96.7	L-2394	
31	Subg	Existing Cover Cap - See Drawing	121.4	110.7	9.7	97.4	L-2394	
33	Subg	Existing Cover Cap - See Drawing	123.2	111.0	11.0	97.6	L-2394	

Proctor No	Proctor Date	Optimum Moisture	Maximum Dry Density	Color / Description
L-2386	07/01/2009	16.7	103.7	Tan & Grey / Lean Clay
L-2394	07/15/2009	14.1	113.7	Reddish Tan / Sandy Lean Clay

Gauge No.: 35455 Daily Standard Counts: 07/14/2009 DS: 2,609 MS: 740
Test Methods: ASTM D2922-B
Remarks: These tests were performed solely at the request of the Client for his own use. No warranties are expressed or implied regarding the suitability of the site for construction or whether or not the reported data represents all conditions of the site.

Respectfully Submitted,
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C. Brandon Quinn

C. Brandon Quinn, P.E.

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707 West Cotton St. Longview, TX 75604 (903) 758-0402

Acct ID:	ALAMO1	File ID: C4261-095	Date Sampled: 07/14/2009
Report Date:	07/29/2009		Sampled By: C. Richardson
Project:	LHAAP C&D Landfill Cover, Karnack, Texas		By Order Of: Greg Osuna
Location:	Longhorn Ammunition Plant Landfill		Order Number:
Client:	Alamo 1, San Antonio, Texas		
Contractor:	Pierce Construction, Inc., Beckville, TX		
REPORT:	**General Inspection**		LAB NO: 4800
			Test Method: See Below

TEST RESULTS

Report No: 2-615-000004
Page 1 of 1

Weather: Clear/ Hot **Technician(s):** Clint Richardson **Time:** 4.00 Hrs **Mileage:** 88.0

Type and Amount of Work Being Performed by Contractor Related to Technician's Duties: (List equipment also.)

No contractor operations at this time.

Duties and Tests Performed by Technician:

Technician performed in place density tests at noted locations. In addition, technician obtained sample of clay cover cap and transported to the Longview lab for testing. See drawing dated 07/14/2009.

Test Results and Procedures:

See in place density and Moisture Density Relationship reports dated 07/14/2009.

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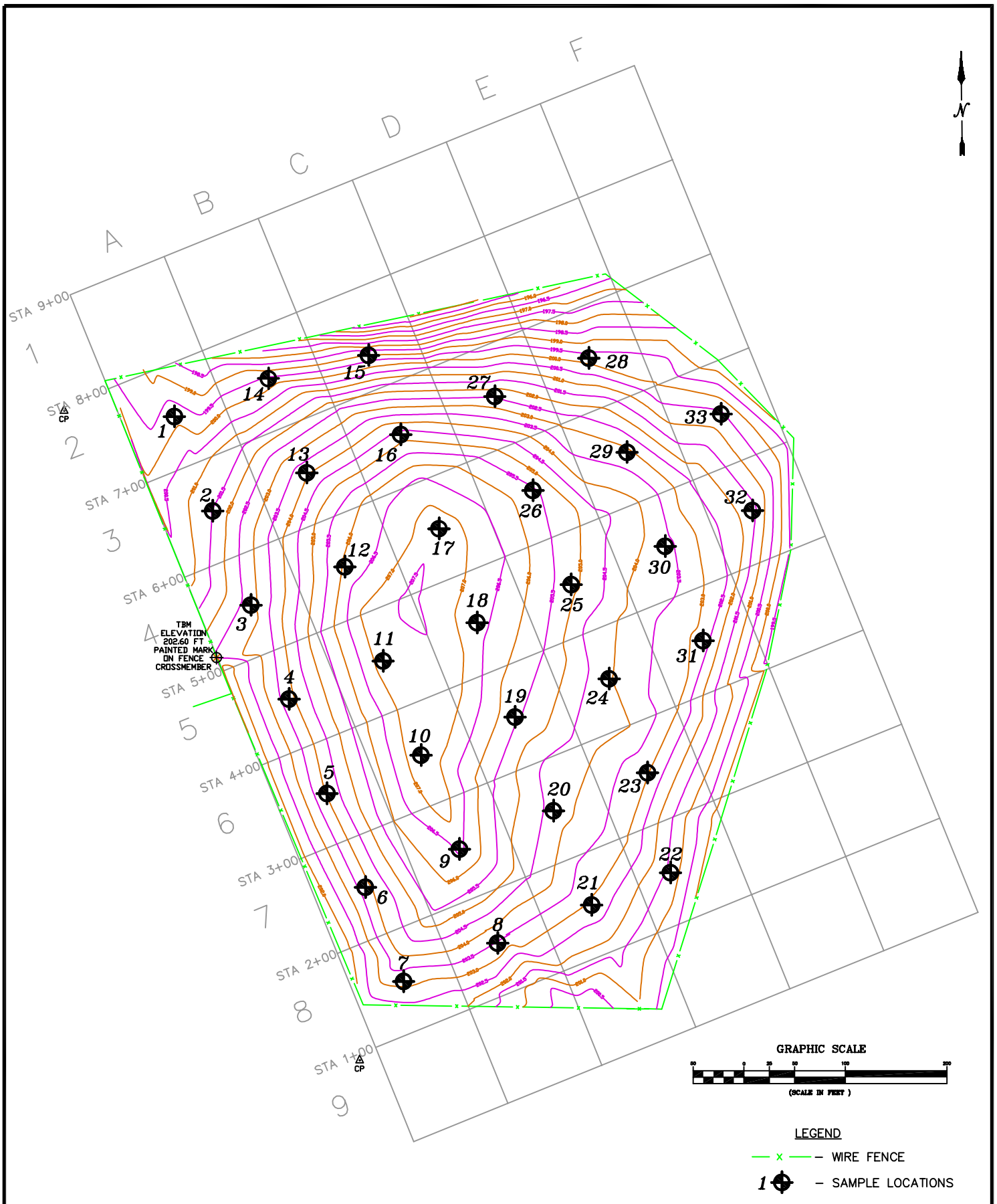

ETTL ENGINEERS & CONSULTANTS MAIN OFFICE 1717 Edst Erwin Tyler, Texas 75702 (903) 595-4421	LONGHORN AMMUNITION PLANT LANDFILL KARNACK, TEXAS	SUBGRADE – SAMPLE LOCATION MAP JOB NO.: C 4261-065 DATE: 7/14/09 SCALE: AS SHOWN	APPROVED BY: DRAWN BY: K.C.R.

Home Office - 1717 East Erwin Street
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707 West Cotton St. Longview, TX 75604 (903) 758-0402

Acct ID: ALAMO1 File ID: C4261-095 Date Sampled: 08/07/2009
Report Date: 08/10/2009 Sampled By: Clint Richardson
Project: LHAAP C&D Landfill Cover, Karnack, Texas By Order Of: Greg Osuna
Location: Cover Fill - See Drawing Order Number:
Client: Alamo 1, San Antonio, Texas
Contractor: Pierce Construction, Inc., Beckville, TX

REPORT: **Soil Densities** LAB NO: 2363
Test Method: See Below

TEST RESULTS Report No: 2-615-000007
Page 1 of 2

Material: Tan - Gray Lean Clay Required: N/G 95

Test No	Lift	Location	Wet Density	Dry Density	Percent Moisture	Percent Proctor Density	Proctor No	Comments
1	1st	Cover Fill - See Drawing	121.8	103.8	17.3	99.1	L-2363	
2	1st	Cover Fill - See Drawing	121.5	105.1	15.6	100.4	L-2363	
3	1st	Cover Fill - See Drawing	120.9	105.1	15.0	100.4	L-2363	
4	1st	Cover Fill - See Drawing	121.8	105.8	15.1	101.1	L-2363	
5	1st	Cover Fill - See Drawing	117.0	100.5	16.4	96.0	L-2363	
6	1st	Cover Fill - See Drawing	120.3	102.4	17.5	97.8	L-2363	
7	1st	Cover Fill - See Drawing	124.0	105.2	17.9	100.5	L-2363	
8	1st	Cover Fill - See Drawing	122.4	105.7	15.8	101.0	L-2363	
9	1st	Cover Fill - See Drawing	117.0	100.4	16.5	95.9	L-2363	
10	1st	Cover Fill - See Drawing	121.1	100.8	20.1	96.3	L-2363	
11	1st	Cover Fill - See Drawing	124.2	104.0	19.4	99.3	L-2363	
12	1st	Cover Fill - See Drawing	119.2	100.4	18.7	95.9	L-2363	
13	1st	Cover Fill - See Drawing	121.3	102.9	17.9	98.3	L-2363	
14	1st	Cover Fill - See Drawing	120.9	101.7	18.9	97.1	L-2363	
15	1st	Cover Fill - See Drawing	119.8	100.5	19.2	96.0	L-2363	
16	1st	Cover Fill - See Drawing	121.0	100.4	20.5	95.9	L-2363	
17	1st	Cover Fill - See Drawing	120.9	103.4	16.9	98.8	L-2363	
18	1st	Cover Fill - See Drawing	120.0	99.8	20.2	95.3	L-2363	
19	1st	Cover Fill - See Drawing	120.8	101.2	19.4	96.7	L-2363	
20	1st	Cover Fill - See Drawing	118.0	99.9	18.1	95.4	L-2363	
21	1st	Cover Fill - See Drawing	122.0	105.5	15.6	100.8	L-2363	
22	1st	Cover Fill - See Drawing	121.9	105.1	16.0	100.4	L-2363	
23	1st	Cover Fill - See Drawing	119.6	101.5	17.8	96.9	L-2363	
24	1st	Cover Fill - See Drawing	122.0	103.4	18.0	98.8	L-2363	
25	1st	Cover Fill - See Drawing	121.3	101.3	19.7	96.8	L-2363	
26	1st	Cover Fill - See Drawing	119.9	99.9	20.0	95.4	L-2363	
27	1st	Cover Fill - See Drawing	122.9	102.9	19.4	98.3	L-2363	
28	1st	Cover Fill - See Drawing	120.6	101.0	19.4	96.5	L-2363	
29	1st	Cover Fill - See Drawing	117.3	101.8	15.2	97.2	L-2363	

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Acct ID: ALAMO1 File ID: C4261-095 Date Sampled: 08/07/2009
Report Date: 08/10/2009 Sampled By: Clint Richardson
Project: LHAAP C&D Landfill Cover, Karnack, Texas By Order Of: Greg Osuna
Location: Cover Fill - See Drawing Order Number:
Client: Alamo 1, San Antonio, Texas
Contractor: Pierce Construction, Inc., Beckville, TX

REPORT: **Soil Densities** LAB NO: 2363
Test Method: See Below

TEST RESULTS

Report No: 2-615-000007
Page 2 of 2

Material: Tan - Gray Lean Clay Required: N/G 95

Test No	Lift	Location	Wet Density	Dry Density	Percent Moisture	Percent Proctor Density	Proctor No	Comments
30	1st	Cover Fill - See Drawing	121.7	104.2	16.8	99.5	L-2363	
31	1st	Cover Fill - See Drawing	123.7	104.8	18.0	100.1	L-2363	
32	1st	Cover Fill - See Drawing	120.7	101.8	18.6	97.2	L-2363	
33	1st	Cover Fill - See Drawing	122.0	102.2	19.4	97.6	L-2363	

Proctor No	Proctor Date	Optimum Moisture	Maximum Dry Density	Color / Description
L-2363	06/05/2009	18.2	104.7	Tan & Gray / Lean Clay with Sand

Gauge No.: 35455 Daily Standard Counts: 08/07/2009 DS: 2,593 MS: 734
Test Methods: ASTM D2922-B
Remarks: These tests were performed solely at the request of the Client for his own use. No warranties are expressed or implied regarding the suitability of the site for construction or whether or not the reported data represents all conditions of the site.

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C. Brandon Quinn, P.E.

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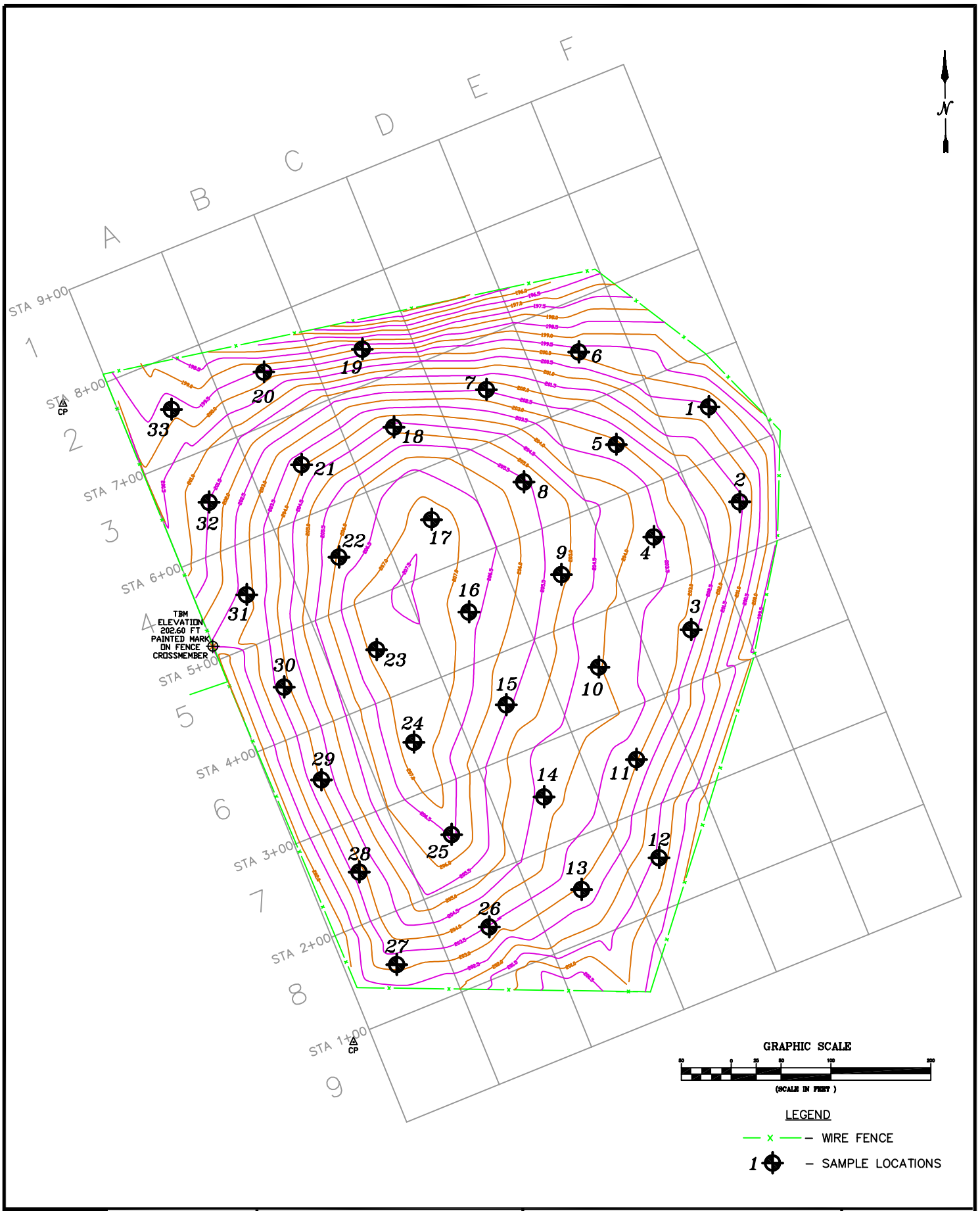

ETTL ENGINEERS & CONSULTANTS MAIN OFFICE 1717 Edst Erwin Tyler, Texas 75702 (903) 595-4421	LONGHORN AMMUNITION PLANT LANDFILL KARNACK, TEXAS	FIRST LIFT – SAMPLE LOCATION MAP	APPROVED BY:
		JOB NO.: C 4261-065	DRAWN BY: K.C.R.
		DATE: 8/7/09 SCALE: AS SHOWN	

Home Office - 1717 East Erwin Street
Tyler, Texas 75702-6398
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Area Offices
210 Beech Street Texarkana, AR 71854 (870) 772-0013
707 West Cotton St. Longview, TX 75604 (903) 758-0402

Acct ID: ALAMO1 File ID: C4261-095 Date Sampled: 08/25/2009
Report Date: 08/27/2009 Sampled By: Clint Richardson
Project: LHAAP C&D Landfill Cover, Karnack, Texas By Order Of: Greg Osuna
Location: Longhorn Ammunition Plant Order Number:
Client: Alamo 1, San Antonio, Texas
Contractor: Pierce Construction, Inc., Beckville, TX

REPORT: **Soil Densities** LAB NO:
Test Method: See Below

TEST RESULTS Report No: 2-615-000011
Page 1 of 2

Material: Tan Gray Lean Clay Required: NG 95

Test No	Lift	Location	Wet Density	Dry Density	Percent Moisture	Percent Proctor Density	Proctor No	Comments
1	Final	Landfill Cover Cap Fill - See Sketch	118.3	101.0	17.1	96.5	L-2363	
2	Final	Landfill Cover Cap Fill - See Sketch	117.5	99.7	17.9	95.2	L-2363	
3	Final	Landfill Cover Cap Fill - See Sketch	121.1	102.1	18.6	97.5	L-2363	
4	Final	Landfill Cover Cap Fill - See Sketch	122.4	102.3	19.6	97.7	L-2363	
5	Final	Landfill Cover Cap Fill - See Sketch	119.0	100.8	18.1	96.3	L-2363	
6	Final	Landfill Cover Cap Fill - See Sketch	121.1	100.6	20.4	96.1	L-2363	
7	Final	Landfill Cover Cap Fill - See Sketch	120.8	100.4	20.3	95.9	L-2363	
8	Final	Landfill Cover Cap Fill - See Sketch	123.3	104.7	17.8	100.0	L-2363	
9	Final	Landfill Cover Cap Fill - See Sketch	119.1	100.9	18.0	96.4	L-2363	
10	Final	Landfill Cover Cap Fill - See Sketch	117.9	103.6	13.8	98.9	L-2363	
11	Final	Landfill Cover Cap Fill - See Sketch	120.3	103.8	15.9	99.1	L-2363	
12	Final	Landfill Cover Cap Fill - See Sketch	122.1	105.6	15.6	100.9	L-2363	
13	Final	Landfill Cover Cap Fill - See Sketch	119.3	103.2	15.6	98.6	L-2363	
14	Final	Landfill Cover Cap Fill - See Sketch	116.4	100.7	15.6	96.2	L-2363	
15	Final	Landfill Cover Cap Fill - See Sketch	120.3	103.0	16.8	98.4	L-2363	
16	Final	Landfill Cover Cap Fill - See Sketch	113.9	100.1	13.8	95.6	L-2363	
17	Final	Landfill Cover Cap Fill - See Sketch	118.2	99.6	18.7	95.1	L-2363	
18	Final	Landfill Cover Cap Fill - See Sketch	124.0	105.8	17.2	101.1	L-2363	
19	Final	Landfill Cover Cap Fill - See Sketch	121.5	99.9	21.6	95.4	L-2363	
20	Final	Landfill Cover Cap Fill - See Sketch	116.3	100.2	16.1	95.7	L-2363	
21	Final	Landfill Cover Cap Fill - See Sketch	119.6	102.0	17.3	97.4	L-2363	
22	Final	Landfill Cover Cap Fill - See Sketch	120.4	103.8	16.0	99.1	L-2363	
23	Final	Landfill Cover Cap Fill - See Sketch	116.4	100.8	15.5	96.3	L-2363	
24	Final	Landfill Cover Cap Fill - See Sketch	121.0	106.2	13.9	101.4	L-2363	
25	Final	Landfill Cover Cap Fill - See Sketch	121.5	100.8	20.5	96.3	L-2363	
26	Final	Landfill Cover Cap Fill - See Sketch	120.3	105.5	14.0	100.8	L-2363	
27	Final	Landfill Cover Cap Fill - See Sketch	115.3	101.0	14.2	96.5	L-2363	
28	Final	Landfill Cover Cap Fill - See Sketch	121.5	105.6	15.1	100.9	L-2363	
29	Final	Landfill Cover Cap Fill - See Sketch	121.0	103.4	17.0	98.8	L-2363	

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707 West Cotton St. Longview, TX 75604 (903) 758-0402

Acct ID: ALAMO1 File ID: C4261-095 Date Sampled: 08/25/2009
Report Date: 08/27/2009 Sampled By: Clint Richardson
Project: LHAAP C&D Landfill Cover, Karnack, Texas By Order Of: Greg Osuna
Location: Longhorn Ammunition Plant Order Number:
Client: Alamo 1, San Antonio, Texas
Contractor: Pierce Construction, Inc., Beckville, TX

REPORT: **Soil Densities** LAB NO:
Test Method: See Below

TEST RESULTS Report No: 2-615-000011
Page 2 of 2

Material: Tan Gray Lean Clay Required: NG 95

Test No	Lift	Location	Wet Density	Dry Density	Percent Moisture	Percent Proctor Density	Proctor No	Comments
30	Final	Landfill Cover Cap Fill - See Sketch	115.4	101.9	13.2	97.3	L-2363	
31	Final	Landfill Cover Cap Fill - See Sketch	114.9	102.4	12.2	97.8	L-2363	
32	Final	Landfill Cover Cap Fill - See Sketch	119.4	101.7	17.4	97.1	L-2363	
33	Final	Landfill Cover Cap Fill - See Sketch	117.1	104.0	12.6	99.3	L-2363	

Proctor No	Proctor Date	Optimum Moisture	Maximum Dry Density	Color / Description
L-2363	06/05/2009	18.2	104.7	Tan & Gray / Lean Clay with Sand

Gauge No.: 35455 Daily Standard Counts: 08/26/2009 DS: 2,584 MS: 741
Test Methods: ASTM D2922-B
Remarks: These tests were performed solely at the request of the Client for his own use. No warranties are expressed or implied regarding the suitability of the site for construction or whether or not the reported data represents all conditions of the site.

Respectfully Submitted,
ETTL Engineers & Consultants, Inc.

C. Brandon Quinn

C. Brandon Quinn, P.E.

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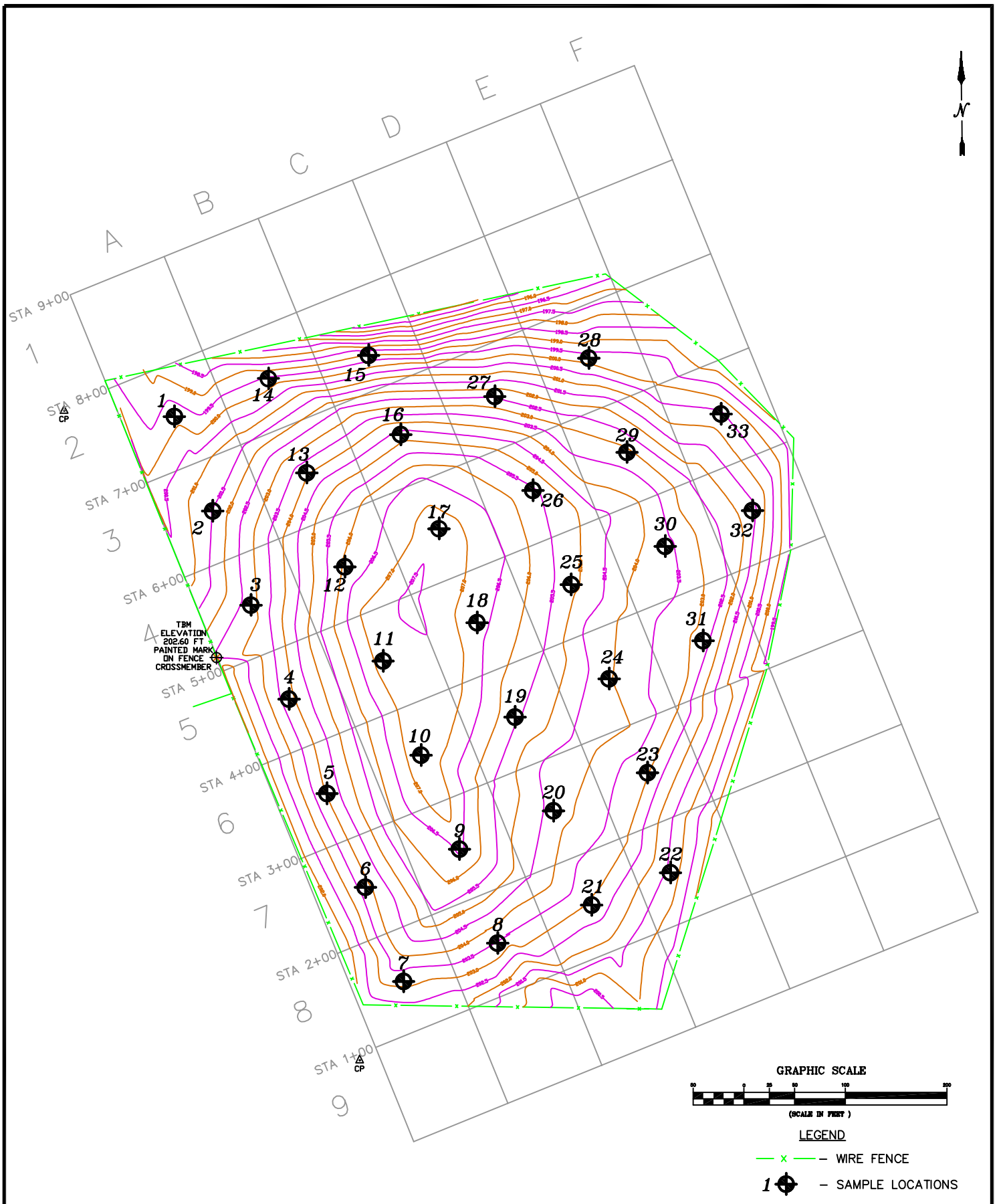

ETTL ENGINEERS & CONSULTANTS MAIN OFFICE 1717 Edst Erwin Tyler, Texas 75702 (903) 595-4421	LONGHORN AMMUNITION PLANT LANDFILL KARNACK, TEXAS	FINAL LIFT – SAMPLE LOCATION MAP	APPROVED BY:
		JOB NO.: C 4261-065	DRAWN BY: K.C.R.
		DATE: 8/26/09 SCALE: AS SHOWN	

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3.4 Cover Thickness Verification Report

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Tyler, Texas 75702-6398
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Area Offices
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707 West Cotton St. Longview, TX 75604 (903) 758-0402

Acct ID: ALAMO1 File ID: C4261-095 Date Sampled: 08/26/2009
Report Date: 09/02/2009 Previously Reported: 08/27/2009 Sampled By: Ken Barr / Clint Richardsc
Project: LHAAP C&D Landfill Cover, Karnack, Texas By Order Of: Greg Osuna
Location: Landfill Cap Thickness Checks Order Number:
Client: Alamo 1, San Antonio, Texas
Contractor: Pierce Construction, Inc., Beckville, TX

REPORT: **General Test Report** LAB NO:
Test Method: See Below

TEST RESULTS Report No: 2-615-000009
Page 1 of 1

Grid Location	Thickness	Grid Location	Thickness	Grid Location	Thickness
A-2	18"+	B-2	18"+	D-3	18"+
A-3	18"+	C-2	18"+	D-2	18"+
A-4	18"+	C-3	18"+	E-2	18"+
A-5	18"+	C-4	18"+	E-3	18"+
A-6	18"+	C-5	18"+	E-4	18"+
A-7	18"+	C-6	18"+	E-5	18"+
A-8	18"+	C-7	18"+	E-6	18"+
B-9	18"+	C-8	18"+	E-7	18"+
B-8	18"+	C-9	18"+	F-6	18"+
B-7	18"+	D-8	18"+	F-5	18"+
B-6	18"+	D-7	18"+	F-4	18"+
B-5	18"+	D-6	18"+	F-3	18"+
B-4	18"+	D-5	18"+		
B-3	18"+	D-4	18"+		

Remarks: These tests were performed solely at the request of the Client for his own use. No warranties are expressed or implied regarding the suitability of the site for construction or whether or not the reported data represents all conditions of the site.

Respectfully Submitted,
ETTL Engineers & Consultants, Inc.

C. Brandon Quinn, P.E.

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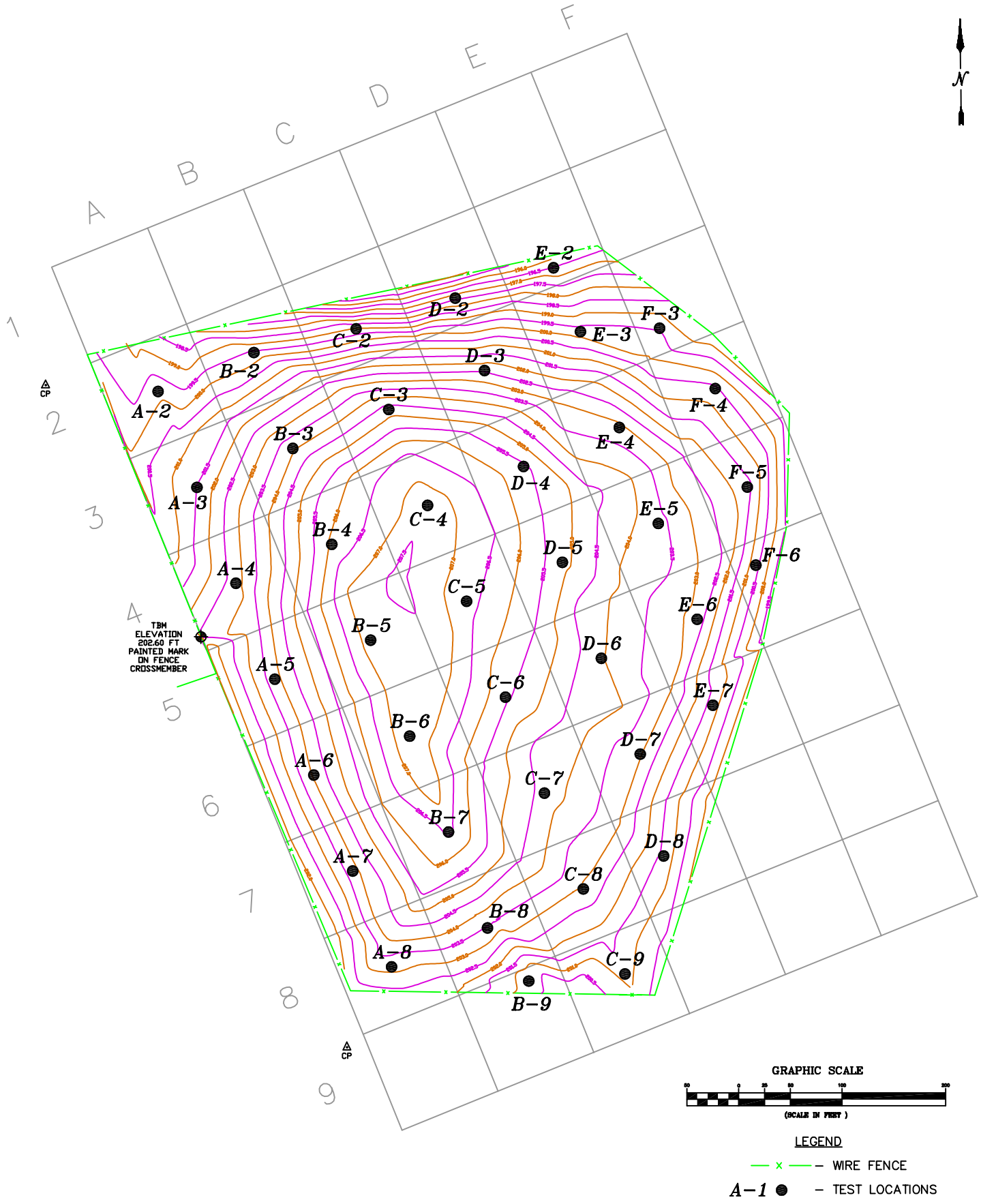

ETTL ENGINEERS & CONSULTANTS MAIN OFFICE 1717 Edst Erwin Tyler, Texas 75702 (903) 595-4421	LONGHORN AMMUNITION PLANT LANDFILL KARNACK, TEXAS	THICKNESS TEST LOCATION		APPROVED BY:
		JOB NO.: C 4261-065		DRAWN BY: K.C.R.
		DATE: AUG. 2009	SCALE: AS SHOWN	

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4.0 LONGHORN ARMY AMMUNITION PLANT CLOSURE/POST CLOSURE PLAN

LONGHORN ARMY AMMUNITION PLANT

CLOSURE/POST-CLOSURE PLAN

FEBRUARY, 1990

Irene C. Hadley
Environmental Coordinator
Thiokol Corporation

Don E. Maley
Environmental Coordinator
Army

PURPOSE

The purpose of this plan is to provide guidance should the need arise to close an existing waste disposal site on Longhorn Army Ammunition Plant. The procedures provided are of a general nature and will be revised and expanded before actual closure of a particular site begins.

GENERAL PROCEDURES

A. The contact point for any information or problems encountered with any waste disposal facility currently in use or closed, is the Commander, Longhorn Army Ammunition Plant, Marshall, Texas 75670, phone number (214) 679-2100. Should the plant itself ever be deactivated, the contact point will become the Environmental Operations Center, U.S. Army Armament, Munitions and Chemical Command, Rock Island, Illinois 61299 which can be reached at Autovon number 8-793-6244, commercial number (309) 782-6244/4793.

B. Any site which is closed or partially closed will be certified closed by an independent (subcontractor) registered professional engineer, who will have access to the disposal site before, during, and after closure to insure that the site is closed as per the state approved Closure Plan. The registered professional engineer will provide a letter of certification to the installation certifying proper closure. A copy of this letter plus a notarized letter, signed by the General Manager and Administrative Contracting Officer, will be provided to the state within 30 days of final closure.

C. Following closure or partial closure of any disposal site, a metes and bounds description of the site will be recorded with the Harrison County Court Clerk. This metes and bounds description will include information necessary to describe the site, all waste cells within the site, the type and quantity of materials left in the closed site and a statement that the site will not be used for other activities. A copy of this information with the seal of the County Clerk will be provided to the Executive Director of the Texas Water Commission. As there is no deed to the property owned by the federal government, the notice recorded with the metes and bounds description will be furnished with a map of the installation.

D. Periodic revision of this plan will be made to insure that new facilities are added, and that closed sites are removed from the plan. Revision of the Closure Plan Cost Estimate will be done annually on/or before November 30th.

E. This plan is not for release outside of Longhorn Army Ammunition Plant without the approval of the Commander. Its purpose is as an internal planning document meeting the requirements of the Resource Conservation and Recovery Act and the Texas Water Commission for development of closure/post-closure plans.

F. All equipment used to totally or partially close a hazardous waste site will be cleaned and decontaminated. The item will be cleaned and decontaminated with material appropriate for the type of waste and equipment involved, such as: water, solvents, absorbent, etc. All waste and waste residues produced will be collected and managed as a hazardous

waste. It will then be shipped off-site for disposal at an approved hazardous waste site. Equipment that is impractical to clean and decontaminate, such as brooms, mops and rags, will be packaged and shipped off-site for disposal at an approved hazardous waste site.

SPECIFIC SITE PROCEDURES

A. Burning Ground (B.G. #3) Open Burning Area

1. Closure Procedures

Depending on priorities and operational requirements, higher echelons of the U. S. Army will determine if a facility is to be laid away (deactivated) or maintained when production ceases. Partial closure of this facility and/or relocation of operations could be made at any time throughout the life of the facility. Partial closure could be done as per the procedures contained here but, in all probability, would be accomplished by removal of the contaminated soil for disposal in an off-plant hazardous waste disposal site and then refilling the area to grade. Explosive waste ash residue from burns in this area is periodically removed and tested and if found to be non-hazardous, buried in a sanitary landfill on-plant or, if hazardous, shipped to an off-plant hazardous waste disposal site. There is, therefore, no permanent accumulation of hazardous waste at this facility and there is no known life expectancy for the site. The expected year of closure for the site is the year 2030. At this time, closure, either partial or complete closure, is not being contemplated. Should the decision be made to deactivate the open burning area, the following is proposed as a method:

a. Equipment such as burning pans and cages will be removed and salvaged. Clay linings from pans will be drummed and tested for EP toxicity (metals) to determine proper disposal methods.

b. A thorough search will be made of the area to be deactivated for unexploded ordnance or explosives and any items found will be destroyed.

c. Representative soil samples will be taken in the area and analyzed for explosive residue. If explosive residue is found, a layer of straw will be laid over the area, soaked with diesel and burned off.

d. Soil tests will be conducted for metals and organics and any area found to exceed EPA listed standards will be excavated, the soil drummed and shipped to an off-plant hazardous waste disposal site.

e. Low areas will be filled with soil and contoured to control surface water runoff and to prevent standing water. Appropriate vegetation will then be planted and maintained to prevent erosion. Fertilizer will be applied to promote growth.

f. The area will be posted and secured as required by the use of a chain link fence and gates.

g. The area will be inspected monthly for the first year and quarterly thereafter to check for possible leaching, surface runoff or erosion and to maintain proper cover.

h. Records of inspections performed will be maintained by the installation Environmental Control Office. An annual report will be made to the U.S. Army higher echelons for permanent record.

i. Monitoring of wells around the Burning Ground will be conducted annually for the first five (5) years. If no groundwater contamination from open burning operations is found after five (5) years, then a request for an exemption to the monitoring requirements will be made.

2. Care of Site After Closure

a. No other use of this site is planned at this time.

b. If required, inspections, maintenance actions and reports will be continued for a minimum of 30 years or until conditions change.

c. As required, preventive maintenance inspections will be continued on a quarterly basis indefinitely to insure integrity of the site.

d. The Department of Defense Explosive Safety Board requires that all areas containing buried explosives remain under federal control until the explosives are rendered innocuous. Closed site ownership and responsibility is expected to remain with the U.S. Army.

B. Demolition Range

1. Closure Procedures

Depending on priorities and operational requirements, higher echelons of the U.S. Army will determine if a facility is to be laid away, closed or maintained when production operations cease. Partial closure of the demolition range or relocation of the existing demolition sites is possible throughout the life of the facility. Partial closure or relocation would be accomplished in the same manner as closure. Following demolition of explosives there is very little residue left, and accumulation, for all intents and purposes, of waste will not occur. The estimated life of the facility is 50 years from 1980 (2030) assuming that the actual demolition pits will be relocated several times during this period. Time required to close this facility would be six months after notice to proceed from the regulator. Closure of the demolition range is not anticipated until and unless, the entire plant closes. Should the decision be made to close the demolition range, the following is proposed as a method:

a. Stake the area out, within 500 feet of the demolition pits, into 100 foot square grids and perform a detailed surface search for unexploded ordnance. Any unexploded ordnance found will be destroyed in place.

b. Take core samples to a depth of ten feet in each demolition pit and sample for metals.

c. If testing indicates contamination, remove the contaminated soil and dispose of it in an off-plant hazardous waste disposal site.

d. If no contamination is found, fill the demolition pits with dirt, contour to prevent run-on of surface water and seed to prevent erosion.

e. Place warning signs immediately around/above the demolition pit areas stating, "Warning, Former Demolition Area".

2. Care of Site After Closure

a. Semiannual maintenance checks for soil erosion will be made for the first several years after which additional checks will be made as required.

b. No monitoring will be required because the site will be closed by removing all hazardous waste, and the potential for groundwater contamination is very small.

c. No other use of this site is planned at this time.

d. Records of inspections and maintenance actions will be maintained by installation Environmental Control Office and an annual report will be made to U.S. Army higher echelons for permanent record.

e. If required, post-closure actions will continue for up to 30 years, unless conditions change.

C. Drum Storage Buildings (49-W, 31-W, and 811-1)

1. Closure Procedures

Depending on priorities and operational requirements, higher echelons of the U.S. Army will determine if a facility is to be laid away (deactivated) or maintained when production ceases. Partial closure of this facility, and/or relocation of operations, could be made at any time throughout the life of the facility. Partial closure would be accomplished by returning part of the facility now used for hazardous waste storage to normal operations. Waste at these facilities is stored in drums pending off-site disposal and there is no known life expectancy for the buildings. At this time, closure, either partial or complete, is not being contemplated. The expected year of closure for these sites is 2030. Should the decision be made to deactivate or close all or part of these facilities, the following is proposed as a method:

a. Remove all remaining drums and ship to an approved off-site hazardous waste disposal facility, utilizing manifest procedures.

b. Sweep/mop the floor areas utilized for drum storage and drum any recovered residue for off-site disposal as in (a) above.

c. Inspect the facility for any evidence of contamination and provide a letter of certification to the Texas Water Commission stating

that the facility is partially or completely closed for hazardous waste storage operations.

d. If the facility is to be laid away and not utilized for other operations, the building will be posted and lay away forms completed. An annual inspection of the facility will be made by Property and Maintenance personnel and recorded on the lay away form.

e. Monitoring procedures during post-closure will not be necessary as sources of pollution will not exist.

2. Care of Site After Closure

a. Should the facility ever be released for public sale, a certificate of decontamination would be prepared.

b. If the facility is laid away, an annual inspection would be conducted indefinitely.

D. Lagoon (Unlined Evaporation Pond) Closure Procedures

1. Closure was completed and certified in July 1986.

2. Care of Site After Closure

a. No other use of this site is planned at this time.

b. The closed facility is inspected as part of the Preventive Maintenance program for the plant to insure that the clay cap remains intact. The grass cover will be maintained indefinitely to protect the cap. Mowing of the grass will insure that erosion can be easily spotted and controlled.

c. The fence around Burning Ground No. 3 will be maintained along with gate security and signs to preclude inadvertent access to the closed lagoon site.

d. Post closure activities are expected to continue for at least 30 years.

e. Groundwater monitoring of the area affected by the closed lagoon will continue until remedial action is completed or test data indicates that there is no groundwater impact. In either case, testing is expected to continue throughout the post closure period of at least 30 years.

E. Rocket Motor Firing Stands (36-T-1, 36-T-4, S-1, S-2) Static Fire (Open Burn)

1. Closure Procedures

Closure procedures will be selected to suit the long range plans of the owner. The firing stands are used to test performance characteristics of motors being produced and they are used to dispose solid propellant rocket motors declared "waste". Closure of RCRA

facilities does not necessarily mean that the test facility would be closed. An environmental assessment for the RCRA facility indicated no significant impact to the environment is caused by the residual products of combustion, therefore, clean up will be minimal. When closure is required, the following procedures will be used:

a. Facilities, equipment and surrounding terrain will be surveyed for evidence of contamination. Surface contamination will be sampled and tested for hazardous characteristics. Down gradient wells will be sampled and tested to assure the groundwater is not contaminated.

b. Significant contamination will be removed and disposed in a permitted facility.

c. Excess facilities and equipment will be removed and disposed.

d. Area will be fine graded to provide drainage and facilitate planting ground cover.

e. Area will be posted and secured as required by the use of a chain link fence and gates.

f. The area will be inspected monthly for the first year and quarterly thereafter to check for possible leaching, surface runoff or erosion and to maintain proper cover.

g. Records of inspections performed will be maintained by the installation Environmental Control Office. An annual report will be made to the U. S. Army higher echelons for permanent record.

h. Monitoring of groundwater wells around the firing stands will be conducted annually for the first five years. If no groundwater contamination from rocket motor firings is found after five years, a request for an exemption or reduced frequency monitoring will be made.

2. Care of Site After Closure

a. The site may continue in use as a test facility after cessation of disposal activity. If the site continues in use as a test facility and later is closed as a test facility, the closure procedures described above will be repeated. If there is no evidence of surface or groundwater contamination caused by the test firings, the groundwater monitoring program initiated for the disposal facility closure will be continued.

b. If required, inspections, testing, maintenance action and reporting will be continued for a minimum of 30 years.

c. If contamination is found subsequent to initial closure, a remedial investigation will be conducted to determine extent and define remediation requirements.

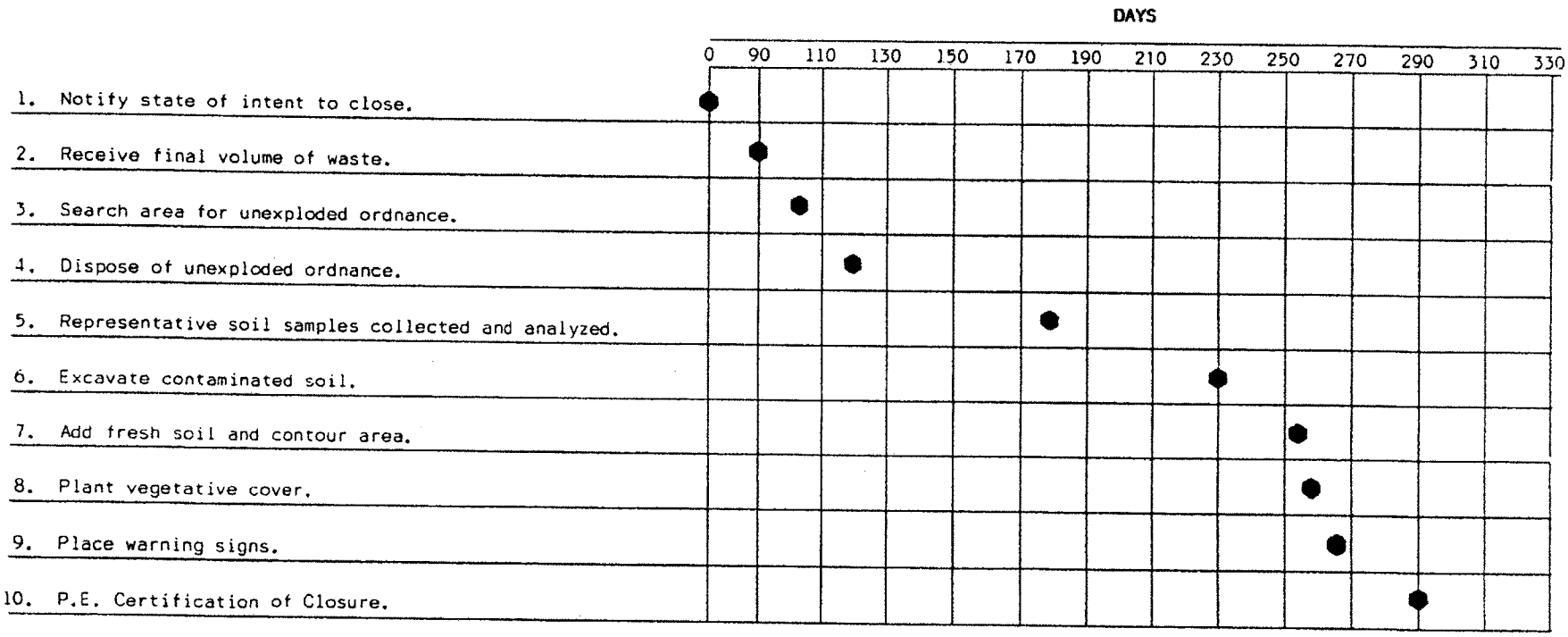
d. The Department of Defense Explosive Safety Board requires that all areas containing buried explosives remain under federal control

until the explosives are rendered innocuous. Closed site ownership and responsibility is expected to remain with the U. S. Army.

F. Schedule to totally and partially close hazardous waste management facilities (see Attachment A).

ATTACHMENT A

PARTIAL AND FINAL CLOSURE OF DEMOLITION RANGE



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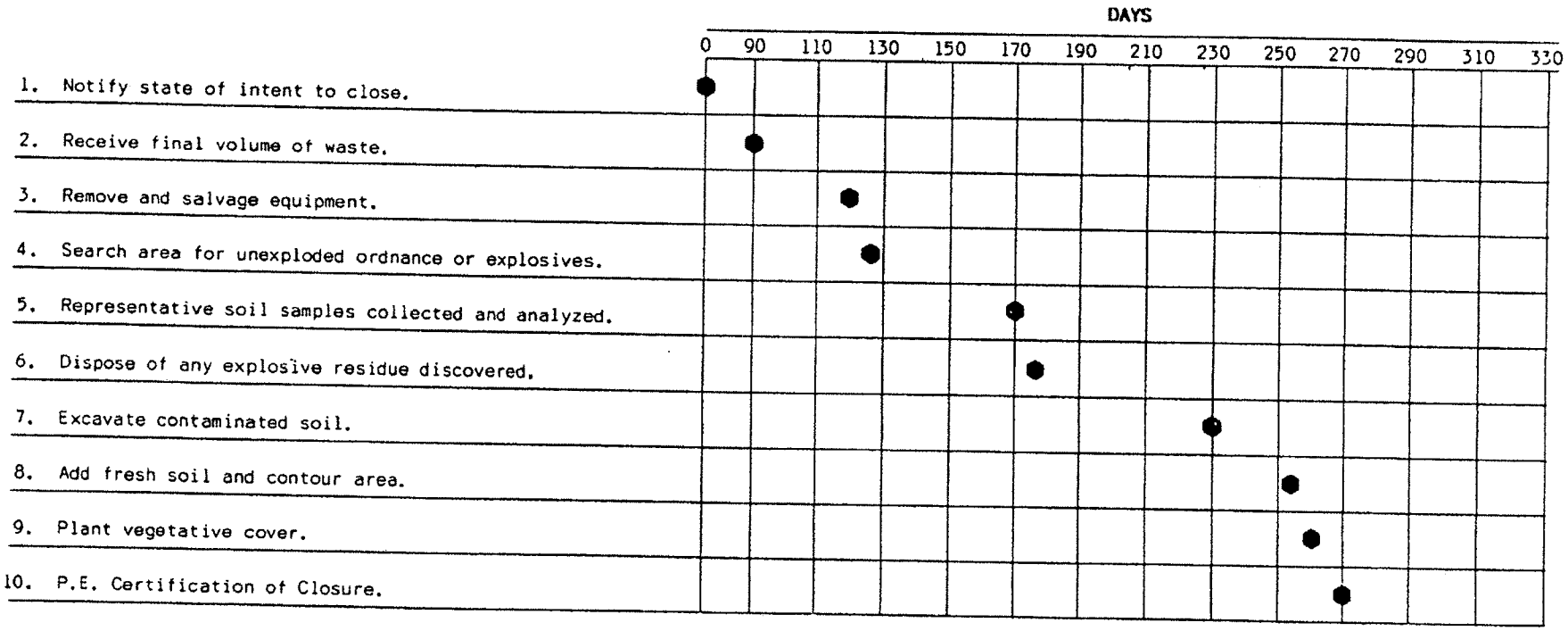
PARTIAL AND FINAL CLOSURE OF BURNING GROUND NO. 3
AND ROCKET MOTOR FIRING STANDS



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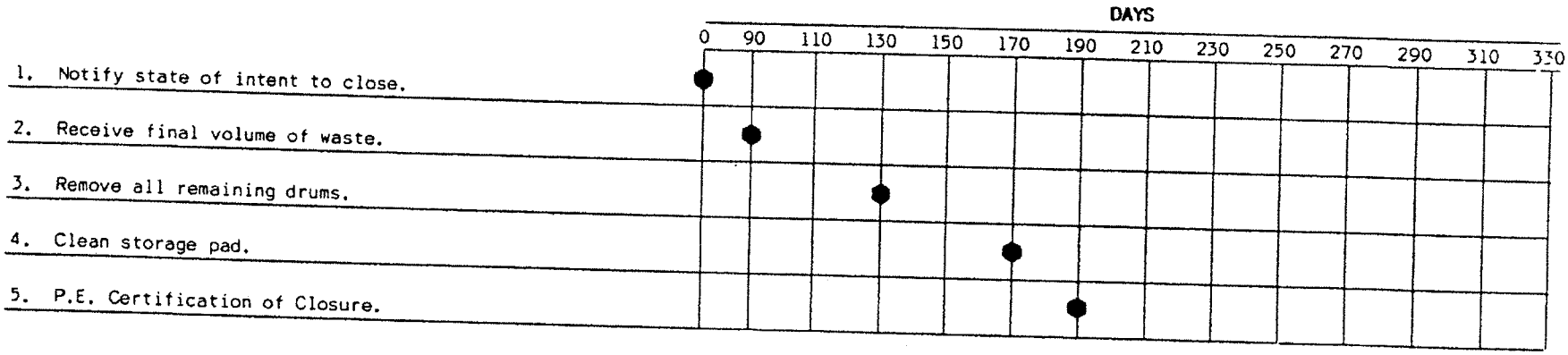
PARTIAL AND FINAL CLOSURE OF DRUM STORAGE BUILDINGS



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ATTACHMENT B

CLOSURE COST ESTIMATE AS OF SEPTEMBER 1988

1. Open Burning*

a.	Search and destroy	$ 50,000
b.	Soil samples/burn	110,000
c.	Disc, sample and reburn	275,000
d.	Fill and seed	12,000
e.	Dispose of residue	220,000
f.	Post and secure	25,000
	TOTAL:	$692,000

g. Post Closure

(1)	Inspections	60,000
(2)	Maintenance (Erosion Control & Security)	100,000
(3)	Reports	20,000
	TOTAL:	$180,000
	GRAND TOTAL:	$872,000

2. Sanitary Landfill

a.	Fill and cap	$600,000
b.	Grade and seed	182,000
c.	Post and mark	35,000
	TOTAL:	$817,000

d. Post Closure

(1)	Inspections	36,000
(2)	Monitoring wells	75,000
(3)	Maintenance	121,000
(4)	Reports	25,000
	TOTAL:	$257,000
	GRAND TOTAL:	$1,074,000

*Escalated cost due in part to new Land Ban Restrictions.

3. Air Curtain Destructor

a.	Lay away cleanup	$125,000
b.	Preservation	25,000
c.	Posting	2,000
	TOTAL:	$152,000

d. Post closure

(1)	Inspections	6,500
	GRAND TOTAL:	$158,500

4. PCB Pads

a.	Ship transformers	$165,000
b.	Payment for disposal (DRMO)	250,000
c.	Clean pads	25,000
d.	Sample soil	3,000
e.	Remove and ship contaminated soil	18,000
f.	Payment for disposal	30,000
g.	Fill, grade and seed	6,000
h.	Post	2,000
	TOTAL:	$499,000

i. Post closure

(1)	Inspections	65,000
(2)	Reports	4,000
	TOTAL:	$69,000
	GRAND TOTAL:	$568,000

5. Demolition Range

a.	Stake and search range	$ 50,000
b.	Core samples/metal analysis	20,000
c.	Removal of contaminated soil/disposal	200,000
d.	Fill and cap with soil	30,000
e.	Grade and seed	15,000
f.	Post and secure	10,000
	TOTAL:	$325,000

g. Post closure

(1)	Semiannual inspections	30,000
(2)	Maintenance	40,000
(3)	Reports	15,000
	TOTAL:	$85,000
	GRAND TOTAL:	$410,000

6. Drum Storage Building 31-W*

a.	Remove drums to off-site disposal (DRMO) (1600 drums)	$ 930.000
b.	Sweep/mop floor areas	55,000
c.	Drum and dispose of residue	50,000
d.	Post area	2,200
	TOTAL:	$1,037,000
e.	Post closure	
	(1) Inspections	10,000
	GRAND TOTAL:	$1,047,200

7. Drum Storage Building 49-W*

a.	Remove drums to off-site disposal (DRMO) (2000 drums)	$300,000
b.	Sweep/mop floor areas	75,000
c.	Drum and dispose of residue	15,000
d.	Post area	2,000
	TOTAL:	$392,000
e.	Post closure	
	(1) Inspections	10,000
	GRAND TOTAL:	$402,000

*Escalated cost due in part to new Land Ban Restrictions.

8. Pilot Wastewater Treatment Plant*

a.	Dispose of remaining sludge and liquid	$250,000
b.	Steam/solvent clean tanks	250,000
c.	Clean/replace piping	75,000
d.	Clean heat exchangers and towers	150,000
e.	Dispose of cleanup residue	75,000
f.	Sample oil	10,000
g.	Remove and dispose of contaminated soil	300,000
h.	Post with signs	1,500
	TOTAL:	$1,111,500

i. Post closure

(1)	Inspections	10,000
	GRAND TOTAL:	$1,121,500

9. Construction Materials Landfill

a.	Fill and cap	$350,000
b.	Grade and seed	120,000
c.	Post and mark	50,000
	TOTAL:	$520,000

d. Post closure

(1)	Inspections	$ 36,000
(2)	Monitoring wells	72,000
(3)	Maintenance	175,000
(4)	Reports	12,000
	TOTAL:	$295,000
	GRAND TOTAL:	$815,000

10. Explosive Waste Storage 811-1*

a.	Remove drums for on-site treatment (200 drums)	$20,000
b.	Sweep/mop floor area	12,000
c.	Drum and dispose of residue	20,000
d.	Post area	2,200
	TOTAL:	$54,200

e. Post Closure

(1)	Inspections	10,000
	GRAND TOTAL:	$64,200

*Escalated cost due in part to new Land Ban Restrictions.

11. Lagoon (Unlined Evaporation Pond)

Closed July 1986

a. Post Closure (30 years)

(1)	Inspections	$ 10,000
(2)	Maintenance	100,000
(3)	Reports	10,000
	TOTAL:	$120,000

12. Rocket Motor Stands

a. Closure (4 sites)

(1)	Survey, collect samples, test, report	$ 20,000
(2)	Remove contamination, excess equipment and facilities	100,000
(3)	Fine grade, plant, fence and post	50,000
	TOTAL:	$170,000

b. Post Closure

(1)	Provide monitoring wells	$100,000
(2)	Inspections, tests, reports	120,000
(3)	Maintenance	60,000
	TOTAL:	$280,000
	GRAND TOTAL:	$450,000

SUMMARY

1.	Open Burning	$ 872,000
2.	Sanitary Landfill	1,074,000
3.	Air Curtain Destructor	158,500
4.	PCB Pads	568,000
5.	Demolition Range	410,000
6.	Drum Storage (31-W)	1,047,200
7.	Drum Storage (49-W)	402,000
8.	Pilot Wastewater Treatment Plant	1,121,500
9.	Construction Materials Landfill	815,000
10.	Explosive Waste Storage (811-1)	64,200
11.	Lagoon	120,000
12.	Rocket Motor Firing Stands	450,000
	GRAND TOTAL:	$7,102,400

		Closure	Post Closure
1.	Open Burning	$ 692,000	$ 180,000
2.	Sanitary Landfill	817,000	257,000
3.	Air Curtain Destructor	152,000	6,500
4.	PCB Pads	499,000	69,000
5.	Demo Range	325,000	85,000
6.	Drum Storage (31-W)	1,037,200	10,000
7.	Drum Storage (49-W)	392,000	10,000
8.	Pilot Wastewater Treatment Plant	1,111,500	10,000
9.	Construction Materials Landfill	520,000	295,000
10.	Explosive Waste Storage (811-1)	54,200	10,000
11.	Lagoon	-------	120,000
12.	Rocket Motor Firing Stands	170,000	280,000
	SUB-TOTAL:	$5,679,900	$1,332,500
	Contingency (20%):	1,153,980	266,500
	GRAND TOTAL:	$6,923,880	$1,599,000

5.0 POST CLOSURE CARE PLAN

Post Closure Care for this site will include periodic inspections of the landfill cap and any maintenance required to maintain its integrity for a period of 5 years after final landfill closure is accomplished. Inspection of the soil cover should be made every 6 months until such time as full vegetative cover has been established which should be approximately 2 to 3 years. Given the low concentration of contaminants found in samples taken around the perimeter of the landfill as a part of the Final Closure Assessment Report, see **Section 6.0**, the danger to human health would appear to be reduced to such a level as to justify this post closure care period. Inspection and maintenance records should be prepared and maintained by the facility owner.

Based on the results of monitoring and testing activities performed prior to final closure of the landfill, no further groundwater monitoring is recommended for this site.

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6.0 FINAL CLOSURE ASSESSMENT REPORT

ALAMO 1

FINAL Landfill Closure Assessment Report

Construction & Demolition Debris Landfill (LHAAP-19)

Longhorn Army Ammunition Plant (LHAAP)

Karnack, Texas

June 2010

STATE OF TEXAS
PHYLLIS PRIMROSE
GEOLOGY
2586
LICENSED
PROFESSIONAL GEOLOGIST

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FINAL Landfill Closure Assessment Report
Construction & Demolition Debris Landfill (LHAAP-19)

Longhorn Army Ammunition Plant (LHAAP)

Karnack, Texas

Prepared for:

United States Army Corps of Engineers

Comprehensive Environmental Contract

W912BV-04-D-2021

June 2010

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LIST OF ACRONYMS

Agency for Toxic Substance and Disease Registry (ASTDR)
American Society for Testing and Materials (ASTM)
Below ground surface (bgs)
Chemical of concern (COC)
Commercial / Industrial land use (C/I)
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
Construction and demolition (C&D)
Data usability summary (DUS)
Environmental Protection Agency (EPA)
Equipment blank (EQB)
Flow-through cell (FTC)
Groundwater protection (GWP)
Investigation-derived waste (IDW)
Laboratory control sample (LCS)
Landfill closure assessment (LCA)
Longhorn Army Ammunition Plan (LHAAP)
Matrix spike / matrix spike duplicates (MS/MSDs)
Maximum contaminant levels (MCLs)
Media-specific concentrations (MSCs)
Method quantitation limit (MQL)
Milligrams per liter (mg/L)
Polyvinyl chloride (PVC)
Practical quantitation limit (PQL)
Protective concentration level (PCL)
Resource Conservation and Recovery Act (RCRA)
Sample quantitation limits (SQLs)
Selective ion monitoring (SIM)
Semi-volatile organic compounds (S-VOCs)
Soil/Air and Ingestion (SAI)
Standard operating procedures (SOPs)
Statement of objectives (SOO)
Synthetic precipitation leaching procedure (SPLP)
Target analyte list (TAL) metals
Texas Administrative Code (TAC)
Texas Commission on Environmental Quality (TCEQ)
Texas Risk Reduction Program (TRRP)
United States Fish and Wildlife Service (USFWS)
Upper confidence limit (UCL)
Upper tolerance limit (UTL)
Volatile organic compounds (VOCs)

EXECUTIVE SUMMARY

An assessment of soil and groundwater at construction and demolition debris landfill LHAAP-19 was initiated in August 2009 at the Longhorn Army Ammunition Plant (LHAAP) in Karnack, Texas. The purposes of the assessment were to determine if a release had occurred and to support closure of the landfill consistent with the requirements of Title 30 Texas Administrative Code (TAC) §335.8 (relating to closure and remediation). The assessment consisted of the collection of soil and groundwater samples outside of, but immediately adjacent to, the known boundaries of the landfill.

Concentrations of man-made and naturally-occurring chemicals were detected above the method quantitation limit (MQLs) and site-specific background concentrations, respectively. The detected concentrations are less than the health-based cleanup values for residential land use.

With limited exceptions, the sample quantification limits (SQLs) for non-detected chemicals were less than background or the lowest, applicable health-based media-specific concentration (MSC). For the limited exceptions, the MQL for the most sensitive method available was used as the cleanup value.

The concentrations in soil and groundwater adjacent to the landfill meet the remediation standards for Risk Reduction Standard No. 2 based on residential land use. No further action is warranted for the environmental media.

1.0 INTRODUCTION

1.1 Purpose

A Landfill Closure Assessment (LCA) was conducted to determine if a release had occurred from a construction and demolition (C&D) debris landfill located at the Longhorn Army Ammunition Plan (LHAAP). Field activities were conducted in accordance with the *Landfill Closure Assessment Work Plan*, dated August 5, 2009. The LCA was initiated on August 31, 2009 and completed on September 9, 2009. The findings of the LCA will be used to support a risk-based closure of the landfill under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) consistent with requirements of Title 30 Texas Administrative Code (TAC) §335.8 (relating to closure and remediation).

1.2 Site Location

The LHAAP is located in the northeast corner of Harrison County, Texas approximately 14 miles northeast of Marshall, Texas, and approximately 40 miles west of Shreveport, Louisiana. A Facility Location Map is provided as Figure 1. LHAAP occupies approximately 8,500 acres between State Highway 43 and the western shore of Caddo Lake. LHAAP is inactive and is scheduled to be transferred to United States Fish and Wildlife Service (USFWS) for inclusion in the Caddo Lake National Wildlife Refuge.

1.3 Site History

A C&D landfill was identified during an environmental assessment conducted at the LHAAP facility under the Resource Conservation Recovery Act (RCRA) in 1988. The location of the C&D landfill (LHAAP-19) is shown in Figure 2. The footprint of LHAAP-19 covers an area of approximately 8 acres. The maximum depth of the landfill is believed to be less than 15 feet below ground surface (bgs).

The C&D landfill was sporadically active from 1985 until recent closure activities were conducted. The C&D landfill was permitted by rule to receive non-friable asbestos and

other demolition debris. The monthly disposal rate ranged from 35 to 400 cubic yards of waste. The C&D landfill (formerly referred to as LHAAP-26) was evaluated in 1988. A Preliminary Review Unit Checklist, completed in 1988, states that a trench was excavated to receive one week's waste and was covered at the end of each week. The Statement of Objectives (SOO) states that "recent operations included the demolition debris from production area buildings that were razed from 1999 to 2006".

1.4 Target Chemicals of Concern

The chemicals of concern (COCs), listed in the *Installation Action Plan* dated March 2001 for LHAAP, are trichloroethylene, methylene chloride, explosives, metals, and perchlorate. Samples collected during the assessment were analyzed for target analyte list (TAL) metals, volatile organic compounds (VOCs), semi-volatile organic compounds (S-VOCs), explosives, and perchlorate.

1.5 Regulatory Requirements

There are three standards for remediation under Title 30 Texas Administrative Code (TAC) §335.8 (aka the Risk Reduction Rules).

1.5.1 Risk Reduction Standard No. 1

Under Risk Reduction Standard No. 1, analytical data are compared to background concentrations. If the practical quantitation limit (PQL), which is equivalent to the method quantitation limit[1] (MQL), is greater than background, then the MQL rather than background "shall be used as the cleanup level provided that the person satisfactorily demonstrates to the executive director that lower levels of quantitation of a contaminant are not possible"[2].

[1] TCEQ. 1998. Implementation of the Existing Risk Reduction Rule. July 23.
[2] TCEQ. 1993. Attainment of Risk Reduction Standard No. 1: Closure / Remediation to Background. 30 TAC 335.554(d). June 28.

1.5.2 Risk Reduction Standard No. 2

Under Risk Reduction Standard No. 2, analytical data is compared to health-based concentrations. The applicable media-specific concentrations (MSCs) are based upon on the current and future land use (residential or commercial) of the property, the exposure media (surface soils, subsurface soils, and groundwater), and exposure pathways (ingestion and inhalation). Where a contaminant in one medium has the potential to contaminate another medium, defined as cross-media contamination, additional MSCs (such as soil-to-groundwater) may need to be developed / evaluated.

The default (Standard 2) soil MSCs are the Soil/Air and Ingestion (SAI) and groundwater protection (referred to as the GWP). For residential land use, the concentration of a contaminant throughout the soil column (i.e. surface and subsurface soils) may not exceed the lower of the SAI and GWP. The SAI and GWP are both applicable to surface soils (soils within two feet of the land surface) for commercial/industrial (C/I) land use. However, only the GWP MSC is applicable to C/I subsurface (greater than 2 feet below land surface) soils.

Under Standard 2, the GWP is equal to the groundwater MSC multiplied by 100. The GWP may be also be a concentration in soil that does not produce a leachate in excess of the groundwater MSC when subjected to the Synthetic Precipitation Leaching Procedure (SPLP) or “other test methods” approved by the Texas Commission on Environmental Quality (TCEQ) that more accurately simulate conditions at the facility. The TCEQ has approved the use of the soil-to-groundwater equations provided in the Texas Risk Reduction Program (TRRP) rules for calculating the GWP.

The default (Standard No.2) groundwater MSCs are based on the groundwater ingestion pathway. The groundwater MSC is the maximum contaminant levels (MCLs) promulgated under the Safe Drinking Water Act, when available, or calculated using the equation provided in the Risk Reduction Rules. The groundwater MSC may be adjusted by a factor of 100 if the groundwater total dissolved solids concentration is greater than

10,000 milligrams per liter.

1.5.3 Risk Reduction Standard No. 3

Risk Reduction Standard No. 3 evaluates the site-specific risk(s) including potential for exposure, long-term effectiveness of the selected remedy, and potential reducing contaminant volume over time. Adjustment of the MSCs is limited under Standard No. 3. The groundwater MSC may be adjusted by a factor of 100 if the groundwater yield is low (typically less than 150 gallons per day). If the adjusted MSCs cannot be achieved, then control measures are used to prevent exposure.

2.0 FIELD ACTIVITIES

The Texas Commission on Environmental Quality (TCEQ) approved the *Landfill Closure Assessment Work Plan*, dated August 5, 2009. The assessment was conducted in August and September 2009 following the TCEQ-approved plan. The methods utilized and any variances to the Work Plan during the assessment were documented in Field Activity Reports. Copies of the Field Activity Reports are provided in Appendix 1. The reader should refer to the Field Activity Reports for a detailed discussion of the methods and strategies used in the field. A summary of the field activities is provided in the following paragraphs.

2.1 Borings and Soil Sampling

A total of ten (10) borings were drilled immediately adjacent to, but outside of, the known footprint of the landfill. The locations and ground surface elevations were surveyed by a registered surveyor. The survey data is provided in Table 1. The boring locations are shown on Figure 3. Seven (7) soil borings were drilled to a depth of 15 feet bgs. Three borings (B2, B5, and B9) were drilled to 30 feet bgs. Cores from the borings were logged by a Texas Professional Geoscientist using American Society for Testing and Materials (ASTM) standards[3], the Munsell™ Color System, and other acceptable professional standards. Copies of the Field Borehole Logs are provided as Appendix 2.

Table 2 summarizes the soil samples submitted for laboratory analyses. Twenty-two soil samples were submitted to Alamo Analytical for TAL Metals, VOCs and S-VOCs analyses. Twenty-one soil samples were submitted to Ana-lab Corp for explosive and perchlorate analyses. Two project samples for each laboratory analysis were identified as the matrix spike / matrix spike duplicates (MS/MSDs) on the chain of custody forms.

[3] ASTM. Standard Method for Description and Identification of Soils (Visual/Manual).

2.2 Monitoring Well Construction and Groundwater Sampling

Three (3) monitoring wells (MW1 through MW3) were installed at the site (Figure 3). The monitoring wells were constructed using 2-inch polyvinyl chloride (PVC), a 20/40 sand pack, bentonite seal, and Portland™ cement. The well construction information is illustrated on the Field Borehole Logs (Appendix 2). The well construction information was submitted to the Texas Water Development Board within 60 days of completion as required by Texas law. Copies of the State of Texas Well Reports are provided in Appendix 3.

The monitoring wells were sampled using low-flow sampling techniques. Duplicate groundwater samples, filtered in the field using a 0.45-micron in-line filter, were collected from monitoring wells MW2 and MW3. These duplicate groundwater samples were designated with an "F" following the well location. Equipment blanks (EQB), one for each day of sampling, were prepared and designated as EQB1 and EQB2. Trip and temperature blanks were included in each cooler delivered to the laboratories. Table 3 summarizes the groundwater samples submitted for laboratory analyses. Five (5) groundwater samples were delivered to each laboratory for analyses.

2.3 Management, Storage, and Disposal of Investigation-Derived Waste

Investigation-derived waste (IDW) was placed in metal, 55-gallon drums and stored near the monitoring wells (see Field Activity Reports in Appendix 1). The IDW was classified using the analytical results for the soil and groundwater samples. The process used to propose a classification for the IDW was documented in a draft letter to Alamo1 dated November 5, 2009. The draft letter was distributed to ECC and USACE for review and approval on or around November 5, 2009. A copy of the draft letter is provided in Appendix 9.

The draft waste classification documentation concluded:

1. Solid waste (soil cuttings, personal protective equipment, and disposable equipment) should be managed and disposed as Class 1 non-hazardous waste.

2. Liquid waste (purge and decon water) should be managed as Class 2 non-hazardous waste.

The IDW was transported by Clean Harbors Environmental Services under manifest number 005393535JJK and disposed at Clean Harbors in La Porte, TX. The profile sheets and signed waste manifests are provided in Appendix 9.

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3.0 RESULTS

3.1 Geology / Hydrogeology

LHAAP-19 is located on an outcrop of the Wilcox Formation. A Geologic Map of Harrison County is provided in Figure 4. The following excerpt is from Broom and Meyers[4]:

> *The Wilcox Group crops out over a large part of the eastern half of Harrison County. The group has a maximum thickness of about 700 feet and consists mostly of fine to medium sand interbedded with considerable amounts of clay and seams of lignite. Thick sand beds are present locally; however, the individual sand beds are not continuous, and therefore are difficult to correlate between wells, even wells a short distance apart. Thin beds of limonite are common on the surface. The Wilcox yields small (less than 50 gallons per minute) to moderate (50 to 500 gallons per minute) quantities of fresh water (less than 1,000 parts per million dissolved solids) to wells throughout the county. For practical purposes, the base of the Wilcox is approximately the base of fresh water, although slightly saline water (1,000 to 3,000 parts per million dissolved solids) can be obtained in the deeper parts of the aquifer.*

The topography generally slopes in all directions from the center of the landfill. A Topographic Survey is provided as Figure 3. The steepest slopes are along the north side of the landfill towards monitoring well MW2. The lithology was logged to a maximum depth of 30 feet bgs. There was approximately 6- to 18- inches of top soil at the boring locations. Some of the top soil brought in to cap the landfill was used to support the rig during drilling (refer to the Field Activity Report in Appendix 1). The lithology is predominantly clay interbedded with silt.

During drilling, water was visibly present in the silt unit starting at approximately 25 feet bgs. The thickness of the wet soils ranged from 0.5 feet to 2.5 feet. The depths to water, measured in the monitoring wells in September 2009, ranged from 22.83 (MW2) to 28.34 (MW3) feet bgs. Based on these measurements, the groundwater appears to be unconfined and the groundwater flow direction is northeast. A groundwater elevation map is shown on Figure 5a. Monitoring well MW3 is located hydraulically up-gradient of the landfill.

[4] Broom and Meyers. 1966. Groundwater Resources of Harrison County, Texas. Texas Water Development Board. Report 27. August.

3.2 Soil Analytical Results

The maximum concentrations detected were compared to the site-specific background concentrations and the applicable MSCs based on residential land use (Table 4 – surface soil and Table 5 – subsurface soil) and C/I land use (Table 6 – surface soil and Table 7 – subsurface soil). A complete summary of the analytical results (detected and non-detected) for soil samples is provided in Appendix 4 (based on residential land use) and Appendix 5 (based on commercial/industrial land use). Copies of the associated laboratory reports are provided in Appendix 6. VOCs, perchlorate, and explosives were not detected in any of the soil samples collected at the site. An evaluation of the non-detected results for these COCs in provided in Section 4.0 (Data Validation).

3.2.1 Evaluation under Risk Reduction Standard No. 1 (Remediation to Background)

Site-specific background concentrations for "surface" (0 to 0.5 feet bgs) and "subsurface" (1.5 to 2.5 feet bgs) soils are available for the LHAAP installation (Shaw, 2004)[5]. With the exception of Table 7 (Maximum Concentrations Detected in Subsurface Soils Based on Commercial/Industrial Land Use), the data tables compare the maximum detected concentrations to the site-specific background concentrations representative of the sampled interval. Table 7 illustrates that, even when applied to the entire soil column, available site-specific background concentrations for one or more COC are exceeded. Additional data / statistical calculations would be needed to demonstrate attainment of Risk Reduction Standard No. 1.

The maximum concentrations detected at the site exceed the installation-specific background concentrations for arsenic, aluminum, vanadium, and potassium. Site-specific background concentrations are not available for other detected COCs or depth intervals (greater than 2 feet bgs) represented by the samples. Even when applied to the entire soil column, available site-specific background concentrations for one or more COC are exceeded. Additional data / calculations would be needed to demonstrate attainment of Risk Reduction Standard No. 1.

[5] Shaw. 2004. Final Background Soil Study Report for Longhorn Army Ammunition Plant. July.

3.2.2 Evaluation under Risk Reduction Standard No. 2 (Remediation to Health-Based Standards)

The maximum detected concentrations were originally compared to the default Standard No. 2 MSCs provided in Appendix II of the Risk Reduction Rules which can be downloaded from http://info.sos.state.tx.us/fids/30_0335_0568-1.html.

3.2.2.1 Soil/Air and Inhalation (SAI)

The maximum concentration detected for n-nitrosodi-n-propylamine exceeded the SAI MSC for residential and commercial/industrial land use. N-nitrosodi-n-propylamine was detected in the surface soils of borings B1, B2, B4, and B5. The laboratory re-analyzed these samples using selective ion monitoring (SIM). SIM allows for a lower detection limit and reduces matrix interference[6]. The COC was not detected in any of the samples re-analyzed. The SQLs were less than the residential SAI. The concentrations reported originally are believed to be the result of matrix interference. No further action is warranted for this COC with respect to the SAI MSC.

3.2.2.2 Groundwater Protection (GWP)

The default GWP MSCs are exceeded for several metal COCs as well as n-nitrosodi-n-propylamine. A site-specific GWP was calculated for these COCs using the TRRP equation for the soil-to-groundwater protective concentration level (PCL) downloaded from http://www.tceq.state.tx.us/assets/public/remediation/trrp/tier2.pdf. The calculations are shown in Table 8. In a conservative GWP calculation, the thickness of the affected soil (L_1) and the distance from the top of the affected soil to the top of groundwater (L_2) are equal, i.e. $L_1 / L_2 = 1$. The maximum concentrations detected were less than the conservative GWP MSCs except for arsenic, antimony, beryllium, and n-nitrosodi-n-propylamine. Data from the borings was evaluated to determine L_1 and L_2 for each remaining COC.

[6] Wikipedia. http://en.wikipedia.org/wiki/Gas_chromatography-mass_spectrometry

Arsenic

Arsenic was delineated to the method quantitation limit (MQL) or background concentrations in the samples collected from the 14- to 15-foot intervals. The minimum (most conservative) depth to groundwater is 22.85 feet bgs. Setting L_1 to 15 feet and L_2 to 22.85 feet, the GWP MSC for arsenic is greater than the maximum detected concentration. Therefore, the arsenic concentrations detected in soil meet the MSCs for Risk Reduction Standard No. 2.

Antimony

Antimony was detected in two samples (B3 12- to 13-foot interval and B6 0.5- to 1-foot interval). The vertical limit for antimony was not delineated to the MQL or background concentrations in boring B3. However, the vertical limit was defined in boring B6. Using the same conservative rationale applied for arsenic, the ratio of L_1/ L_2 was adjusted. The site-specific GWP for antimony is less than the concentration detected in boring B6, but not B3.

A Fact Sheet[7] states that antimony "attaches strongly" to soils containing iron, manganese, or aluminum. The soils at the site do contain iron and aluminum. Antimony was not detected in the groundwater samples collected at the site. The absence of antimony in the groundwater samples supports the fate and transport characteristics from the Fact Sheet. The soil concentrations are protective of groundwater. Therefore, antimony meets the soil criteria for Risk Reduction Standard No. 2.

Beryllium

The maximum concentration was detected in the 14- to 15-foot interval of boring B6. This was the only location sampled where beryllium exceeded the conservative GWP MSC. A deeper sample was not collected from B6. Therefore, the ratio of L_1/ L_2 could

[7]ASTDR. 1995. Antimony: ATSDR Fact Sheet. DHHS, Agency for Toxic Substances and Disease Registry, Division of Toxicology, Centers for Disease Control and Prevention. Publication date: 09/01/1995.

not be modified using available data. The ASTDR[8] states that "most beryllium in soil does not dissolve in water and remains bound to soil". Beryllium was not detected in the groundwater samples collected at the site. The sample quantitation limits (SQLs) were less than background (see Section 4 – Data Validation). The beryllium concentration detected in B6 is, more likely than not, protective of groundwater. Therefore, the beryllium concentrations detected in soil meet the soil criteria (protection of groundwater) under Risk Reduction Standard No. 2 based on residential land use. No further action is warranted for beryllium.

N-nitrosodi-n-propylamine

This COC was originally detected in 5 soil samples. The detected concentrations as well as the SQLs exceeded the site-specific MSC for groundwater protection and the default MSC for inhalation. As stated previously, the laboratory re-analyzed these samples using SIM which reduces matrix interference. N-nitrosodi-n-propylamine was not detected in any of the soil samples re-analyzed using SIM. The SIM SQLs were less than the applicable MSCs. Therefore, this COC meets the criteria for Risk Reduction Standard No. 2.

3.2.3 Evaluation under Risk Reduction Standard No. 3 (Remediation with Controls)

The maximum concentrations detected in soil meet either Risk Reduction Standard No. 1 or Risk Reduction Standard No. 2. Therefore, an evaluation under Risk Reduction Standard No. 3 is not needed.

3.3 Groundwater Analytical Results

The maximum concentrations detected in groundwater are compared to the site-specific background concentrations and the applicable MSCs based on residential land use and C/I land use in Table 9. A complete summary of the analytical data for groundwater is provided in Appendix 7. Copies of the associated laboratory reports are provided in Appendix 8. VOCs, perchlorate, and explosives were not detected in any of the

[8]ASTDR. 2009.ToxFacts for Beryllium downloaded from http://www.atsdr.cdc.gov/tfacts4.html on December 9.

groundwater samples collected at the site. An evaluation of the SQLs and MQLs for the non-detected results is provided in the Data Validation Section (Section 4).

3.3.1 Evaluation under Risk Reduction Standard No. 1 (Remediation to Background)

Site-specific background concentrations were calculated for dissolved and total metals in groundwater using the upper tolerance limit (UTL) and the upper confidence limit (UCL) (Shaw, 2007)[9]. The groundwater samples were analyzed for total, not dissolved, metals. The maximum detected concentrations were compared to the UTL and UCL for total background concentrations, when available, or the MQL.

The maximum detected concentrations for the following total metals exceeded the respective background concentrations:

- Potassium
- Mercury (UCL only)
- Magnesium (UCL only)
- Calcium
- Cadmium
- Barium
- Zinc

Sodium and 4-chloro-3-methylphenol were detected in one or more groundwater samples. Site-specific background concentrations in groundwater have not been calculated for these analytes.

One man-made substance (4-chloro-3-methylphenol) was detected in one groundwater sample (MW3F). The detected concentration was less than the groundwater MSC for residential land use. Sample MW3F was collected from monitoring well MW3 and filtered in the field using a 0.45-micron filter. The man-made constituent was not

[9] Shaw. 2007. Final Evaluation of Perimeter Well Data for Use as Groundwater Background for Longhorn Army Ammunition Plant. June.

detected in the unfiltered groundwater sample collected from monitoring well MW3 or any of the other groundwater samples.

During the field activities conducted in September 2009 (see Field Activity Report in Appendix 1), the yield of monitoring well MW3 was not sufficient to support the use of the flow through cell (FTC). The FTC is used to measure stabilization parameters and ensure proper development/purging of the well prior to collecting a groundwater sample. In addition, the water column was evacuated during purging activities. EPA[10] guidance allows samples to be collected under this scenario but notes "there is a risk that the analytical data obtained, especially metals and strongly hydrophobic organic analytes, may not meet the sampling objectives". The detection of 4-chloro-3-methylphenol in monitoring well MW3 should be verified prior to initiating any response actions under Risk Reduction Standard No. 1.

3.3.2 Evaluation under Risk Reduction Standard No. 2 (Remediation to Health-Based Standards)

The maximum detected concentrations that did not meet Risk Reduction Standard No. 1 criteria were evaluated under Risk Reduction Standard No. 2. The TCEQ does not require a health-based MSC to be derived for certain constituents that do not pose a risk to human health[11]. Potassium, magnesium, calcium, sodium, and iron do not pose a risk to human health and are not evaluated further in this report.

The remaining COC concentrations were compared to the groundwater MSCs (residential and commercial/industrial). With the exception of cadmium and mercury, the maximum detected concentrations were less than the groundwater MSCs.

[10] EPA. 1996. : Low Stress (low flow) Purging and Sampling Procedures for the Collection of Ground Water Samples from Monitoring Wells. July 30.

[11] "Compounds for which Calculation of a Human Health MSC is Not Required" available on the TCEQ website at http://www.tceq.state.tx.us/remediation/rrr.html.

Cadmium

Cadmium was detected in one groundwater sample (MW2). The detected concentration (0.006 mg/L) is slightly (0.001 mg/L) above the groundwater MSC (0.005 mg/L). The groundwater sample was collected from monitoring well MW2. An additional sample was collected from monitoring well MW2 and filtered in the field using a 0.45-micron filter. Cadmium was not detected (SQL of 0.0008 mg/L) in the filtered (MW2F) sample. No further action is warranted for cadmium in groundwater.

Mercury

Mercury was only detected in MW2. Two samples, a filtered and unfiltered sample, were collected from MW2. The mercury concentration detected in the filtered sample was less than the groundwater MSC. No further action is warranted for mercury in groundwater.

3.3.3 Evaluation under Risk Reduction Standard No. 3 (Remediation with Controls)

The concentrations for COCs detected in groundwater meet Risk Reduction Standard No. 1 or Risk Reduction Standard No. 2. A groundwater evaluation under Risk Reduction Standard No. 3 is not warranted.

4.0 DATA VALIDATION

4.1 Non-detected COCs

An evaluation of the COCs not detected in soil and/or groundwater was conducted. The SQLs were compared to background and MSC concentrations. If the SQL was less than background concentrations, then the COC meets Standard No. 1. If the SQL was greater than background but less than the MSC, the COC meets Standard No. 2.

Tables 10 and 11 summarize the evaluation of non-detected COCs with one or more SQLs greater than the respective MSCs for soil and groundwater, respectively. In many cases, the sample was re-analyzed by the laboratory using SIM. Lower MQLs can be obtained using SIM. SIM also reduces matrix interference which allows lower SQLs to be obtained when using EPA Methods 8260 and 8270. In other cases, an analyte was included in the standard list of analytes for more than one method which allowed for lower SQLs/MQLs. For example, 2, 4-dinitrotoluene is included in the standard list for Method 8270 (S-VOCs) and Method 8330 (Explosives). The SQLs/MQLs for 8270, even in SIM mode, were greater than the MSCs. However, the SQLs/MQLs for Method 8330 were less than the MSCs.

For soils, the GWP MSC was typically the lowest MSC. A conservative site-specific GWP was calculated (see Table 8) for those non-detected COCs with MQLs greater than the default GWP when validation of the method's sensitivity was not readily available.

The scenarios that resulted from the evaluation of the SQLs and MQLs were:

1) The sample was re-analyzed using a more sensitive method and the more sensitive (lower) SQLs were less than the cleanup value (background or MSC);
2) The MQL for the most sensitive method was greater than the cleanup value and the SQLs were less than the MQLs. The MQL was used for the cleanup value;
3) The COC was included in the standard list of analytes for more than one method. The SQL/MQL for one of the methods was less than the cleanup value;

4) The SQLs/MQLs were less than the cleanup value based on a conservative, site-specific GWP; or
5) Sufficient information was not available to demonstrate sensitivity of the method(s) used.

Under Scenarios 1 through 3, the non-detected COC meets Risk Reduction Standard No. 1. COCs that fall under Scenario No. 4 meet Risk Reduction Standard No. 2. The laboratories were requested to review the data associated with COCs that fell under Scenario No. 5. The results of the laboratories' reviews are summarized in the following subsections.

4.1.1 Explosives

The SQLs for 1,2-dinitrobenzene; 2-amino-4,6-dinitrotoluene; 4-amino-2,6-dinitrotoluene; and RDX exceeded the GWP MSC (refer to the Data Summary Tables provided in Appendix 4 and Appendix 5 for details). The laboratory reviewed the raw data associated with each applicable laboratory report (Laboratory Report 455504 and 455812) and concluded that explosives were not present in the samples below the laboratory's reporting limits. Therefore, these explosives meet Risk Reduction Standard No. 1. Copies of the raw data are included with the respective laboratory report provided in the appendices.

4.1.2 S-VOCs

The SQLs reported for bis(2-chloroethyl)ether exceeded the soil MSCs. The SQLs reported for 4-aminobiphenyl exceeded the groundwater MSCs. The original laboratory report did not indicate the samples were analyzed using SIM. The laboratory (Alamo Analytical) confirmed the samples were analyzed using SIM and revised the associated laboratory reports. Copies of the transmittal letters, dated December 30, 2009, from Alamo Analytical are included with the associated revised report in the appendices. An "R" was added to the sample ID in the data summary tables to identify the revised SQLs and MQLs.

Bis(2-chloroethyl)ether

With the exception of one sample (B1 0- to 1-foot interval collected on November 11, 2009), the SIM SQLs for bis(2-chloroethyl)ether were greater than the default MSC for groundwater protection but less than the SIM MQL. The SIM MQLs were also greater than the groundwater protection MSC. The laboratory confirmed that SIM is the most sensitive method available. The SIM MQL was used as the MSC and bis(2-chloroethyl)ether meets Risk Reduction Standard No. 1.

4-aminobiphenyl

The SIM SQLs for 4-aminobiphenyl were less than the groundwater MSC for commercial / industrial land use but greater than the groundwater MSC for residential land use. The SIM MQL was greater than the groundwater MSCs for residential and commercial / industrial land use. SIM is the most sensitive method available. The SIM MQLs were used as the MSCs and 4-aminobiphenyl meets Risk Reduction Standard No. 1.

4.1.3 VOCs

The laboratory analyzed groundwater samples using EPA Method 8260. The original reports did not indicate that SIM was used for bromodichloromethane. The original SQLs reported were less than the groundwater MSC based on industrial land use, but slightly greater than the residential MSC. The laboratory confirmed that SIM was used for bromodichloromethane and revised the laboratory reports. The SIM SQLs were less than the groundwater MSCs. Therefore, bromodichloromethane meets Risk Reduction Standard No. 1.

4.1.4 Metals

The thallium SQLs originally reported for the soil samples were greater than the site-specific groundwater protection MSC for residential land use. The laboratory updated the soil SQLs and revised the reports. The updated soil SQLs were less than the groundwater protection MSC for residential land use except in soil samples collected from borings B2, B4, and B5. Boring B2 was converted to a monitoring well (MW2).

Thallium was not detected in the groundwater sample collected from MW2. The SQLs for the deepest samples collected from borings B4 and B5 were less than the site-specific MSC for groundwater protection.

The thallium SQLs reported for the groundwater samples exceeded the ingestion MSCs for residential and commercial / industrial land use. The laboratory confirmed that EPA Method 6020 is more sensitive for thallium than EPA Method 6010. The laboratory was directed to re-analyze the groundwater samples using a method that could achieve the project goal (0.002 mg/L) for thallium.

The laboratory re-analyzed groundwater samples MW1, MW2F, and MW3F using EPA Method 6020. Thallium was not detected in the groundwater samples. The MQL was 0.002 mg/L and the SQL was 0.0014 mg/L.

Thallium was not detected in the soil and groundwater samples. Thallium met the requirements of Risk Reduction Standard No. 1 except that a site-specific MSC for groundwater protection was developed. Therefore, Risk Reduction Standard No. 2 was used.

4.2 Quality Control

The data packages were reviewed following guidance (Consistency Document[12] and TRRP-13[13]) prepared by the TCEQ and the equivalent sections of engineering manual (EM) 200-1-10[14] prepared by the USACE. Tables D-1 and D-2 of TRRP-13 were used to qualify the data, when needed. The qualified data, when applicable, are listed in the data usability summary (DUS) prepared for each laboratory package. The DUS is included with each respective data package in Appendix 6 (Soil Data Packages) and Appendix 8 (Groundwater Data Packages). The conclusions of the DUSs are summarized in the following subsections.

---

[12] TCEQ. 1998. Interoffice Memorandum regarding Implementation of the Existing Risk Reduction Rule. July 23.

[13] TCEQ. 2002. Review and Reporting COC Concentration Data. RG366/TRRP-13. December.

[14] USACE. 2005. Guidance for Evaluating Performance-Based Chemical Data. EM 200-1-10. June 30. http://140.194.76.129/publications/eng-manuals/em200-1-10/entire.pdf

4.2.1 Blanks

Blanks are used to determine if the samples may have been contaminated as the result of transportation (trip blanks), decontamination (equipment blanks), and/or laboratory (method blanks) practices.

Trip Blanks

Trip blanks were included in each cooler shipped to the laboratory. The trip blanks were analyzed for VOCs. VOCs were not detected in the trip blanks. Transportation practices did not cause or contribute to the presence of VOCs in the environmental samples.

Equipment Blanks

Two equipment blanks (EQB) were prepared (one for each day groundwater samples were collected). EQB1 was prepared using distilled water purchased from a local convenience store. EQB2 was prepared with de-ionized water provided by the laboratory. With the exception of select metals (calcium, potassium, magnesium, sodium, and vanadium), target analytes were not detected in the equipment blanks. The metal concentrations detected in the equipment blanks were less than the concentrations detected in the groundwater samples and are, more likely than not, representative of the water source. The decontamination procedures used during field activities were sufficient to eliminate cross-contamination between monitoring wells.

Method Blanks

Method blanks were analyzed for the target analytes (TAL metals, VOCs, S-VOCs, perchlorate, and explosives). Thallium was detected in the method blank associated with laboratory project number 0911053. Thallium was not detected in the associated environmental samples. Therefore, laboratory practices did not cause or contribute to the presence of target analytes in the environmental samples.

4.2.2 Laboratory Control Samples (LCS) and LCS Duplicates

According to the Environmental Protection Agency (EPA)[15], "The primary purpose of the laboratory control sample (LCS) is to demonstrate that the laboratory can perform the overall analytical approach in a matrix free of interferences (e.g, in reagent water, clean sand, or another suitable reference matrix)." The percent recovery indicates the accuracy of the lab and whether the data is biased (high or low). The relative percent difference (RPD) indicates the laboratory's ability to reproduce the data (precision).

Percent recoveries and RPDs for the LCS and LCS duplicates were compared to the laboratory and project control limits (refer to the DUSs provided in Appendix 6 and Appendix 8). If the percent recovery was outside the project control limit, the reported result was adjusted by the percent recovery. The adjusted result was directly compared to the action level. The conclusion based on the adjusted result was the same conclusion based on the reported result except for the following:

<u>4-chlorophenyl phenyl ether (Lab Report No. 0911053)</u>

The percent recovery for 4-chlorophenyl phenyl ether was outside (less than) the project control limits. 4-chlorophenyl phenyl ether was not detected in sample 0911053 (B1 14- to 15-foot interval) and the SQL was less than the action level. The result was adjusted by the percent recovery (56%) and the adjusted result is greater than the action level for groundwater protection.

A conservative, site-specific MSC for groundwater protection was developed using the TRRP equations (Table 8). The adjusted concentration for 4-chlorophenyl phenyl ether is less than the site-specific MSC for groundwater protection (0.03 mg/kg). Therefore, no further action is warranted.

[15] EPA. 2009. Batch Sizes and QC Questions. Downloaded from web page on December 4. http://www.epa.gov/osw/hazard/testmethods/faq/faqs_qc.htm#Spike

4.2.3 Matrix Spike (MS) / Matrix Spike Duplicates (MSDs)

The MS/MSD results measure a method's performance relative to the specific sample matrix of interest (EPA, 2009). If the percent recoveries and RPDs for the MS/MSD are similar to those of the LCS/LCSDs, then matrix interference is unlikely.

Percent recoveries and RPDs for the MS and MSDs were compared to the laboratory and project control limits (refer to the DUSs provided in Appendix 6 and Appendix 8). If the percent recovery was outside the project control limits and different from the LCS/LCSD recoveries, the reported result was adjusted by the percent recovery. The adjusted result was directly compared to the action level. The conclusion based on the adjusted result was the same conclusion based on the reported result except for the following:

Barium (Report No. 0911053)

The adjusted result for barium in the 14- to 15-foot interval of boring B7 is greater than the default soil MSC for groundwater protection. A conservative, site-specific MSC for groundwater protection was developed using the TRRP equations (Table 8). The adjusted barium concentration is less than the site-specific MSC for groundwater protection (440 mg/kg). Therefore, no further action is warranted.

Perchlorate (Report No. 455502 and 455812)

Project samples B3 1-2 and B5 0.5-1 were not used as the MS/MSD as indicated on the chain of custody form. Since non-project samples were used as duplicates, bias codes were not applied to the data based on MS/MSD data. The adjusted results, based on data obtained from the LCSs, were less than the action levels. Therefore, no further action is warranted.

Explosives (Report No. 455504)

Project sample B1 13-14 was not used as the MS/MSD as indicated on the chain of custody form. Since a non-project sample was used as the duplicate, bias codes were not applied to the data based on MS/MSD data. The adjusted results, based on data obtained

from the LCSs, were less than the action levels. Therefore, no further action is warranted.

4.2.4 Surrogate Recoveries

Surrogates are similar in chemical composition to the organic analytes of interest. The surrogates are spiked into environmental and batch QC samples prior to sample preparation and analysis. Surrogate recoveries are used to evaluate potential bias that could have been introduced by the preparatory procedures and/or the analysis (TCEQ, 2002) and to evaluate matrix interference on a sample-specific basis (USACE, 2001[16]).

Surrogate recoveries were within the project limits. The data did not need to be qualified based on surrogate recoveries.

[16] USACE. 2001. Engineering and Design – Requirements for the Preparation of Sampling and Analysis Plans. Publication EM 200-1-3. February 1.

5.0 CONCLUSIONS

The impact of any release from the landfill has been minimal. The concentrations detected in the environmental media (soil and ground water) do not exceed the MSCs for Risk Reduction Standard No. 2 based on residential land use. No further action for soil and groundwater is recommended.

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FIGURES

Figure 1 – Facility Location Map

Figure 2 – Site Location Map

Figure 3 – Topographic Survey of LHAAP-19

Figure 4 – Geologic Map of Harrison County, Texas

Figure 5a – Groundwater Elevation Map
Figure 5 – Draft groundwater gradient map included with Assessment Draft.

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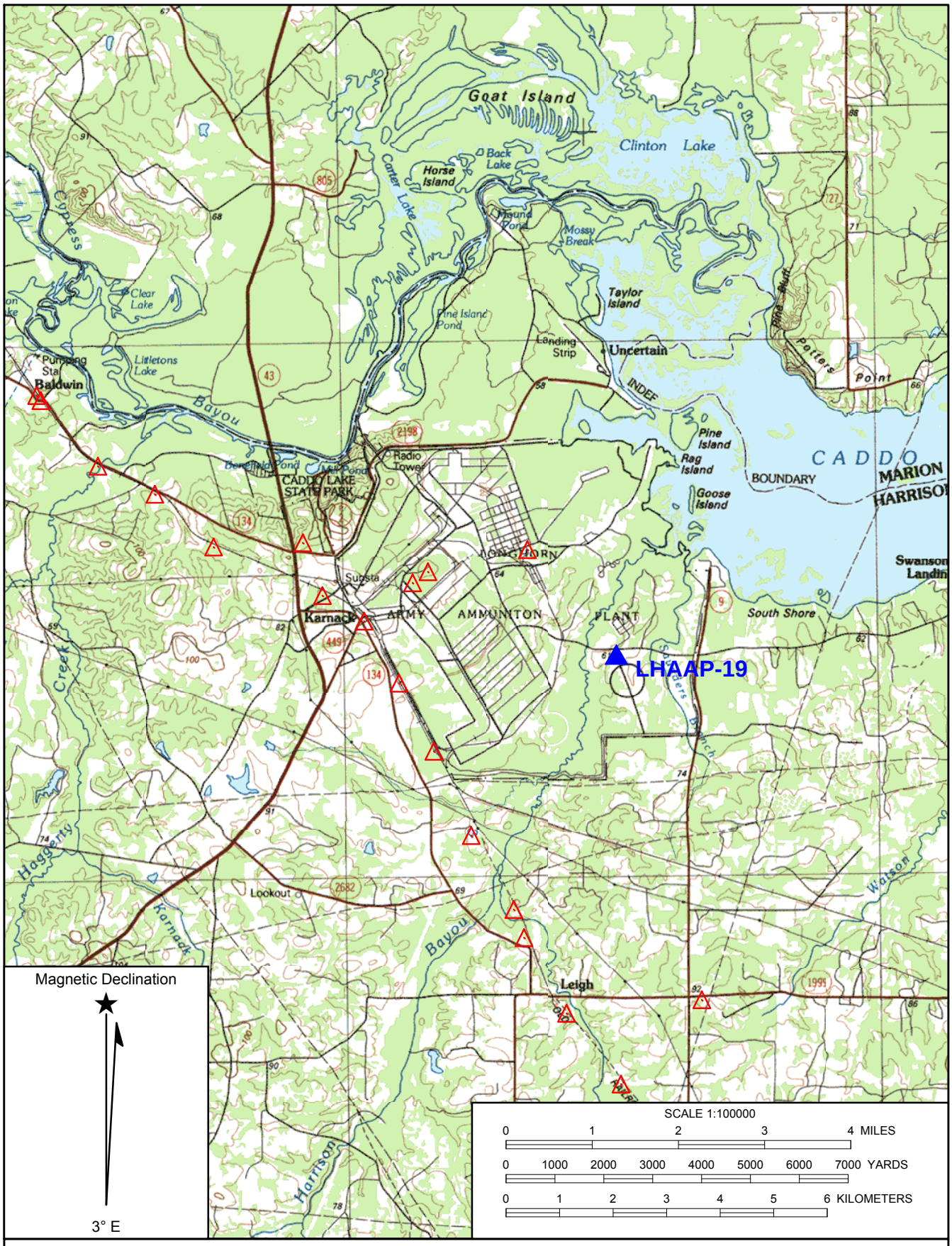

Name: MARSHALL
Date: 3/19/2009
Scale: 1 inch equals 1.578 miles

Location: 032° 40' 03.61" N 094° 08' 46.08" W NAD 27
Caption: Figure 1 - Facility Location Map
Longhorn Army Ammunition Plant (LHAAP)
Karnack, TX

Copyright (C) 1997, Maptech, Inc.

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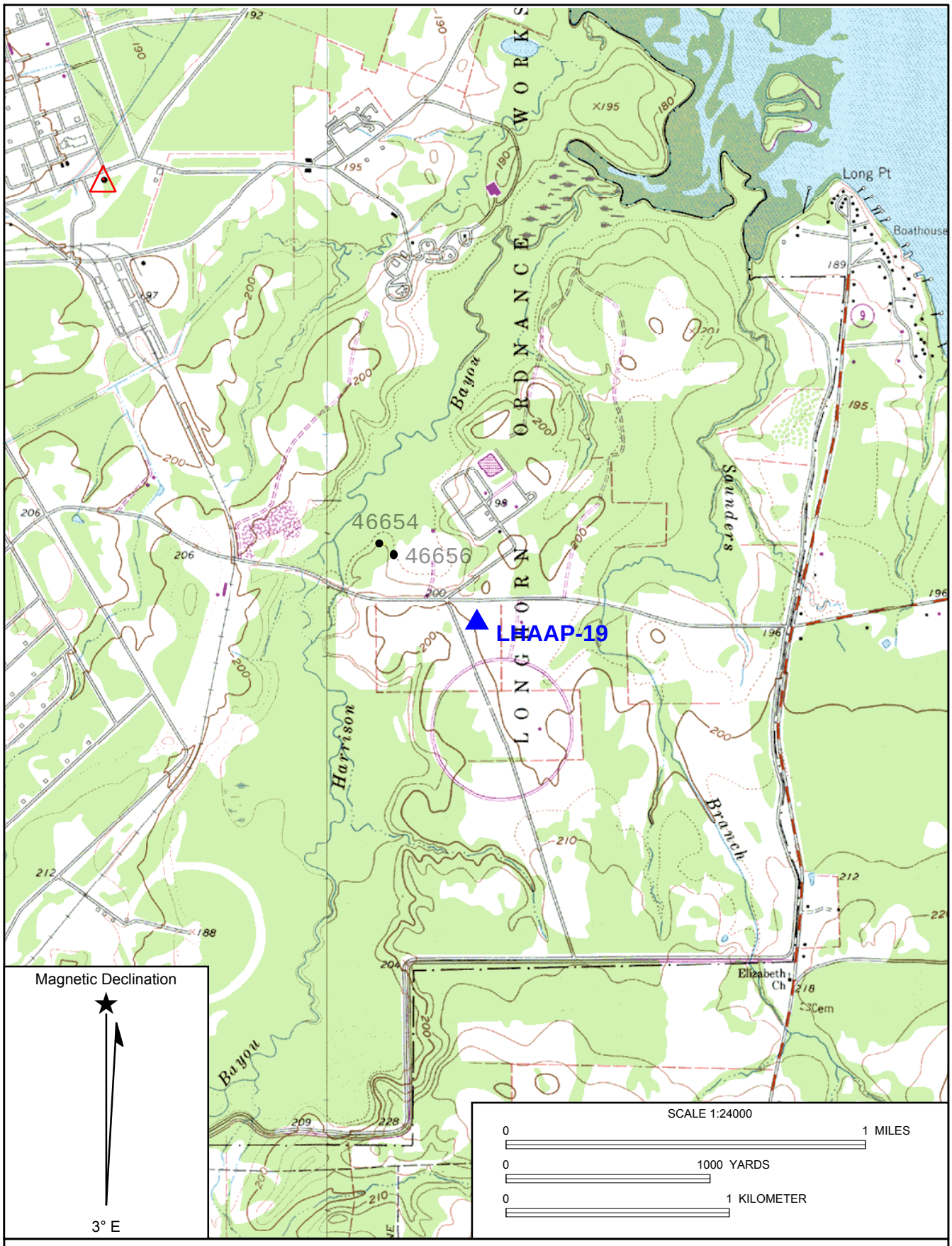

Name: POTTERS POINT
Date: 3/19/2009
Scale: 1 inch equals 2000 feet

Location: 032° 39' 42.34" N 094° 07' 04.16" W NAD 27
Caption: Figure 2 - Site Location Map
LHAAP-19
LHAAP Karnack, TX

Copyright (C) 1997, Maptech, Inc.

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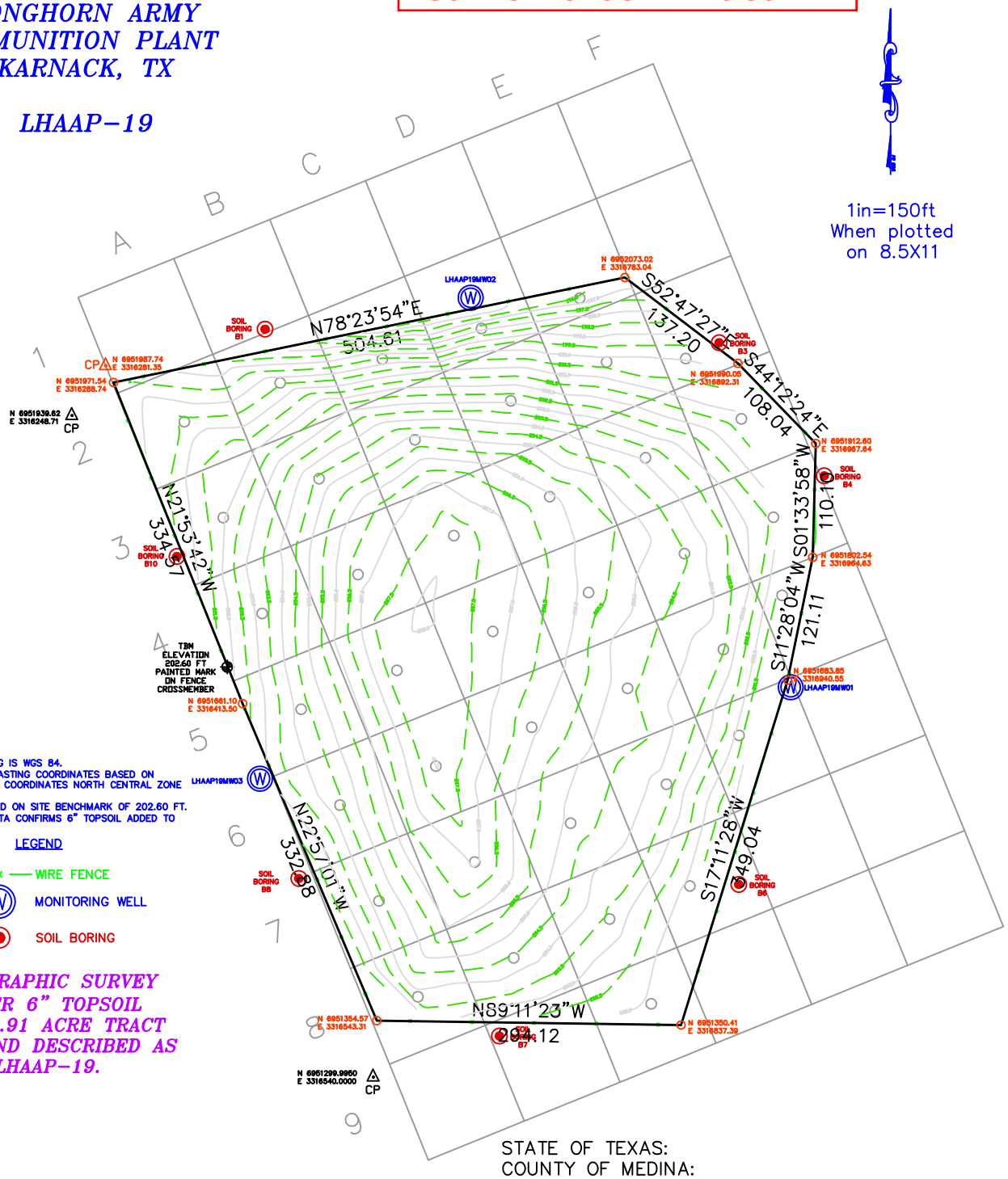
FIGURE 3 - TOPOGRAPHIC SURVEY

LONGHORN ARMY AMMUNITION PLANT KARNACK, TX

LHAAP–19



NOTES:
1) BASIS OF BEARING IS WGS 84.
2) NORTHING AND EASTING COORDINATES BASED ON TEXAS STATE PLANE COORDINATES NORTH CENTRAL ZONE #4202, NAD83.
3) ELEVATIONS BASED ON SITE BENCHMARK OF 202.60 FT.
4) TOPOGRAPHIC DATA CONFIRMS 6" TOPSOIL ADDED TO SITE.

LEGEND

— x — WIRE FENCE

MONITORING WELL

SOIL BORING

TOPOGRAPHIC SURVEY AFTER 6" TOPSOIL OF A 7.91 ACRE TRACT OF LAND DESCRIBED AS LHAAP–19.

Ace Surveying, Inc.
P. O. BOX 597
DEVINE, TEXAS 78016
830–334–7264
830–665–5796 FAX
acesurveying@sbcglobal.net

STATE OF TEXAS
REGISTERED
RHONDA K. BUTLER
5409
PROFESSIONAL
LAND SURVEYOR

THIS DRAWING IS THE PROPERTY OF ACE LAND SERVICES AND SHALL NOT BE USED FOR ANY PURPOSE WITHOUT THE WRITTEN CONSENT OF AN AUTHORIZED AGENT OF ACE LAND SERVICES. ACE LAND SERVICES ACCEPTS NO RESPONSIBILITY FOR THE USE OF THIS DRAWING FOR ANY PURPOSE AFTER SIX MONTHS FROM THE DATE SHOWN HEREON. ALL RIGHTS RESERVED. COPYRIGHT 2009, ACE SURVEYING, INC. ©

STATE OF TEXAS:
COUNTY OF MEDINA:

I, RHONDA K. BUTLER, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND BY MEN WORKING UNDER MY SUPERVISION.

RHONDA K. BUTLER
REGISTERED PROFESSIONAL LAND SURVEYOR #5409

SURVEYED: NOVEMBER 12, 2009
FILE NO: ALAMO 1, KARNACK

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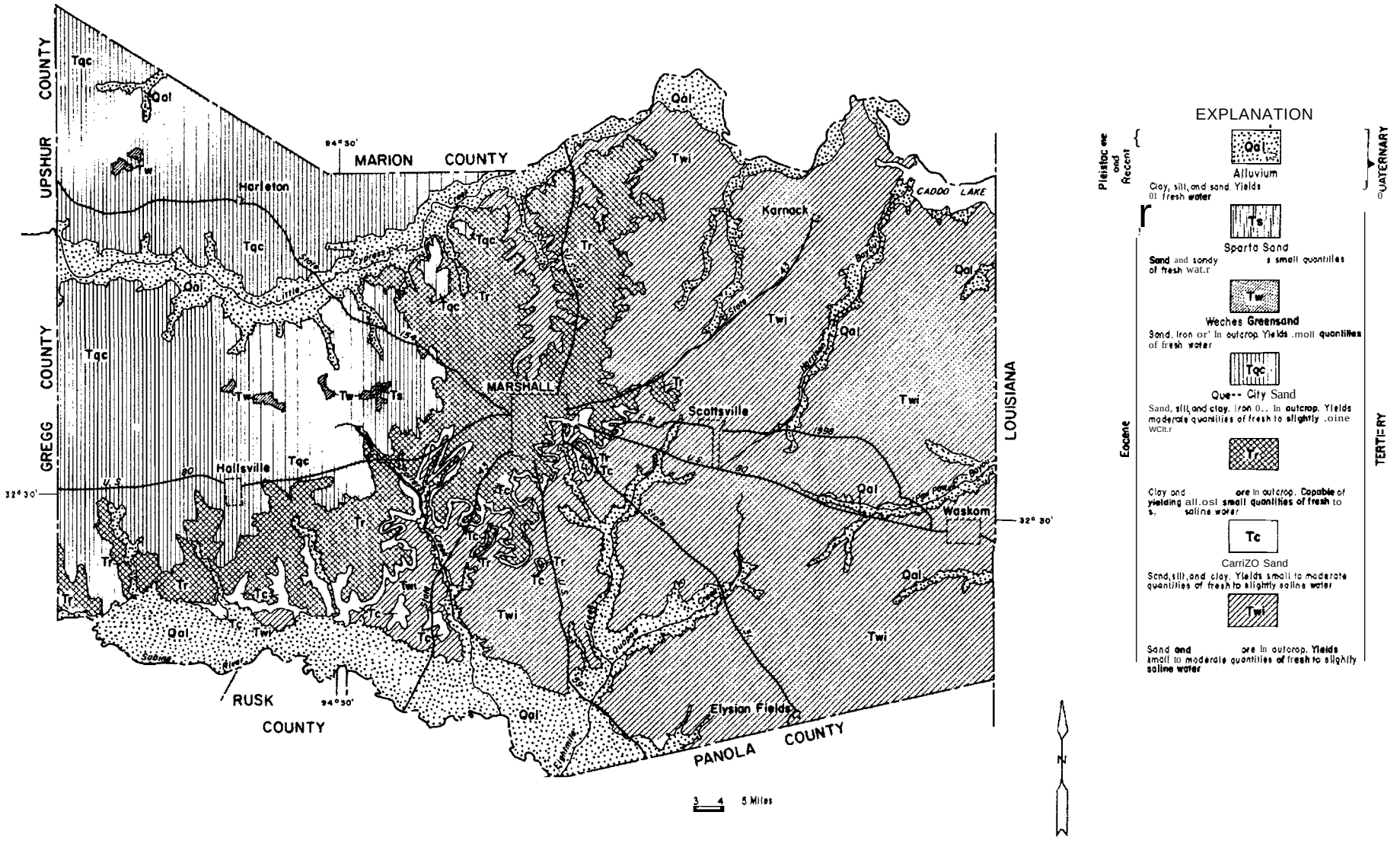

Figure 4 - Geologic Map of Harrison County, TX
LHAAP-19
Karnack, TX

US. Geological Survey in cooperotlon with the Texas Waler Development Board and the Harrison County Commissioners Court

Geology modified from geologic atlas of Texas Tyler sheet (University Texas, Bureau Economic Geology, 1964)

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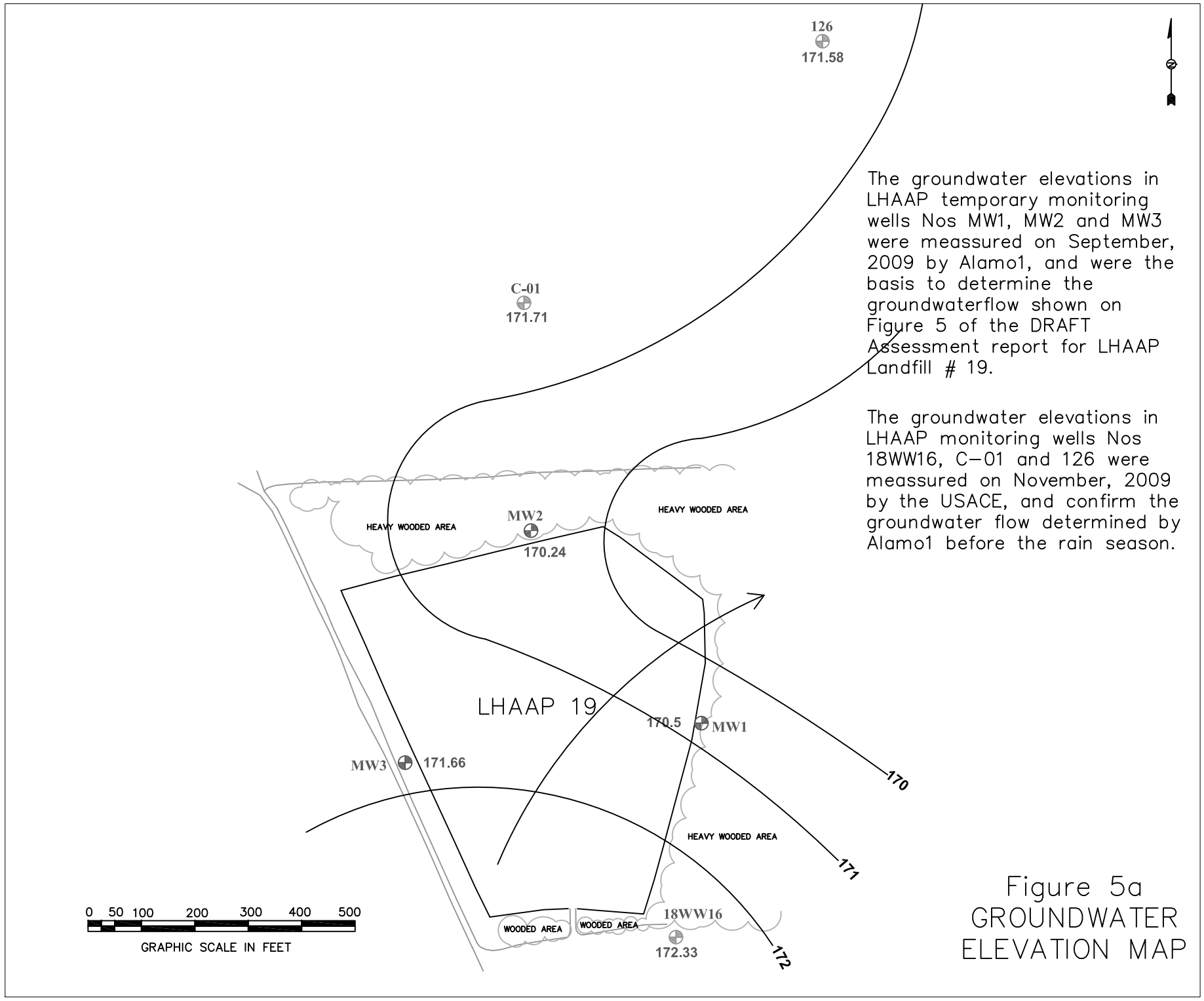


The groundwater elevations in LHAAP temporary monitoring wells Nos MW1, MW2 and MW3 were meassured on September, 2009 by Alamo1, and were the basis to determine the groundwaterflow shown on Figure 5 of the DRAFT Assessment report for LHAAP Landfill # 19.

The groundwater elevations in LHAAP monitoring wells Nos 18WW16, C–01 and 126 were meassured on November, 2009 by the USACE, and confirm the groundwater flow determined by Alamo1 before the rain season.

Figure 5a
GROUNDWATER
ELEVATION MAP

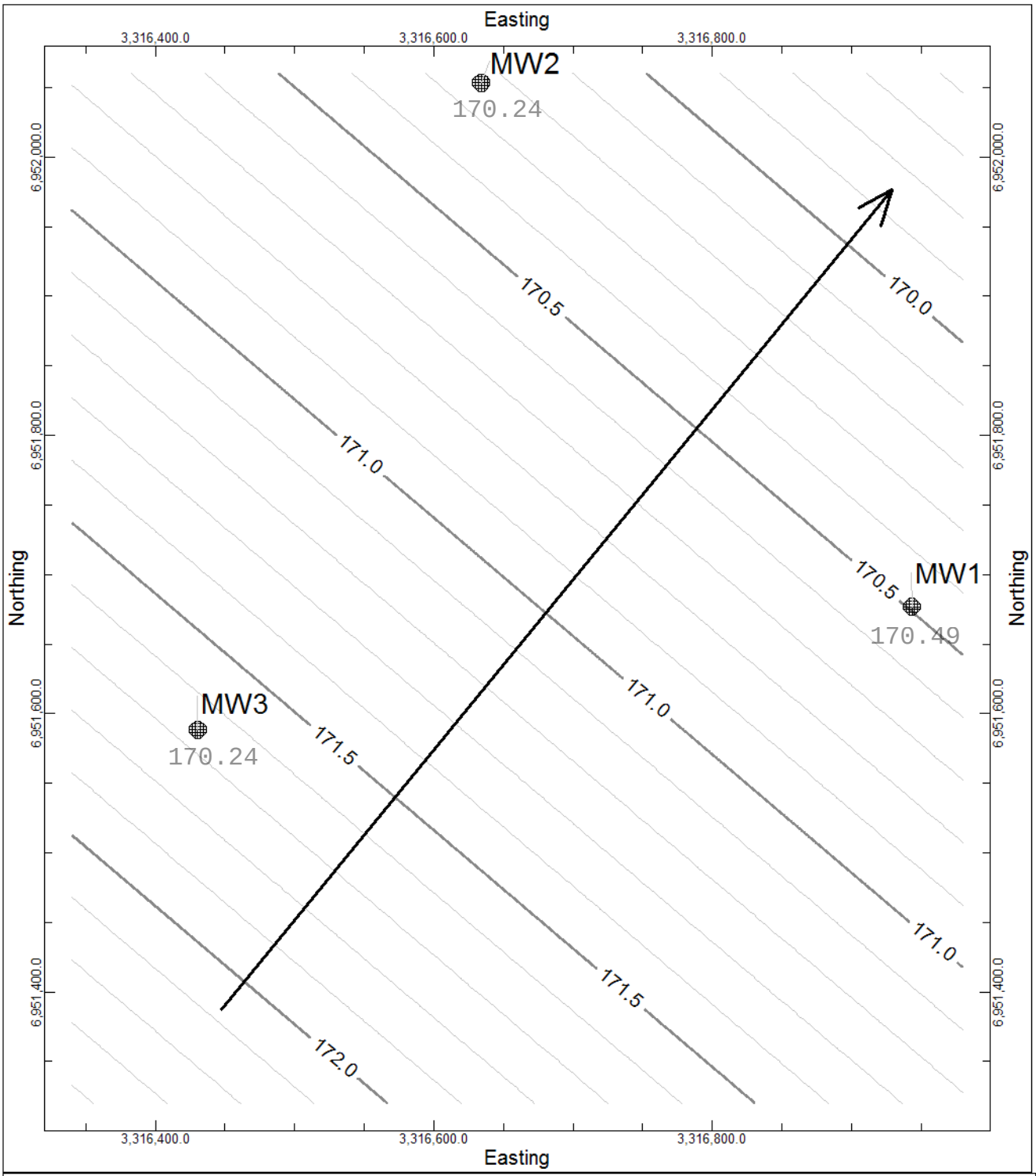
Rev #	Date
01	06/17/10

Notes:

ALAMO 1
10843 Gulfdale
San Antonio, TX 78216
T. 210-404-1220
F. 210-820-3636

PROJECT: LHAAP
Landfill # 19
Karnack, TX

SCALE: SHOWN



Approximate Scale - Feet

0 100 200

LEGEND

Groundwater Flow Direction

171.0 Groundwater Elevation

Contour Interval = 0.1 ft.

Regulatory Compliance & Guidance
2101 Colston Drive
Tyler, Texas 75703

N

Groundwater Gradient Map
LHAAP19
Karnack, TX

Figure 5

DRAFT

TABLES

Table 1 – Survey Data for Boreholes and Monitoring Wells

Table 2 – Summary of Soil Samples Submitted for Laboratory Analysis

Table 3 – Summary of Groundwater Samples Submitted for Laboratory Analysis

Table 4 – Maximum Concentrations Detected in Surface Soils Compared to Background and Media-Specific Concentrations for Residential Land Use

Table 5 – Maximum Concentrations Detected in Subsurface Soils Compared to Background and Media-Specific Concentrations for Residential Land Use

Table 6 - Maximum Concentrations Detected in Surface Soils Compared to Background and Media-Specific Concentrations for Commercial / Industrial Land Use

Table 7 - Maximum Concentrations Detected in Subsurface Soils Compared to Background and Media-Specific Concentrations for Commercial / Industrial Land Use

Table 8 – Calculation of Media-Specific Concentrations for Groundwater Protection Using TRRP PCL Equations

Table 9 – Maximum Concentrations Detected in Groundwater Compared to Background and Media-Specific Concentrations for Residential and Commercial / Industrial Land Use

Table 10 – Evaluation of Non-Detected COCs in Soil with One or More SQLs Greater than the Respective MSCs

Table 10 – Evaluation of Non-Detected COCs in Groundwater with One or More SQLs Greater than the Respective MSCs

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Table 1 - Survey Data for Boreholes and Monitoring Wells

Point Num	Northing	Easting	Elevation	Description
1510	6951676.91	3316943.41	200.99	LHAAP19MW01_PVC
1511	6951676.35	3316943.07	198.49	LHAAP19MW01_NG
1503	6952053.49	3316634.06	194.65	LHAAP19MW02_PVC
1504	6952053.21	3316633.97	193.09	LHAAP19MW02_NG
1519	6951588.50	3316430.40	200.50	LHAAP19MW03_PVC
1520	6951588.34	3316430.43	200.69	LHAAP19MW03_COV
1521	6951588.30	3316429.32	199.90	LHAAP19MW03_NG
1500	6952023.13	3316435.29	195.02	SB_01
2218	6952010.01	3316874.26	198.97	SB_03
1513	6951881.32	3316975.83	198.20	SB_04
2000	6951486.25	3316893.22	199.20	SB_06
1501	6951339.68	3316661.86	200.08	SB_07
1517	6951492.03	3316467.95	199.99	SB_08
1518	6951803.34	3316350.11	194.22	SB_10

Northing and Eastings based on NAD83, Texas State Plane Coordinate System, North Central Zone #4202.
Elevations based on site benchmark.

NG=Natural Ground
COV=Cover on Well
PVC=Well Casing

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TABLE 2 - Summary of Soil Samples Submitted for Laboratory Analyses

Field ID	Sample Interval (ft bgs)	Collection Date	Lab ID			VOCs	SVOCs	TAL Metals	Perchlorate	Explosives
B1	0-1	08/31/09	909007-05			MS/MSD	X	X		
B1	0-1	11/11/09	0911053-02A			X	X	X		
B1	1-2	08/31/09	911053-02	129601	129613				X	X
B1	13-14	08/31/09	129602	129614					X	MS/MSD
B1	14-15	08/31/09	909007-06			Not Analyzed	Not Analyzed	Not Analyzed		
B1	14-15	11/11/09	911053-03			X	X	X		
B2	0.5-1.0	09/01/09	129605	129619					X	X
B2	1-1.5	09/01/09	909007-12			X	X	X		
B2	21-21.5	09/01/09	129606	129620					X	X
B2	21.5-22.5	09/01/09	909007-13			X	X	X		
B3	0-1	08/31/09	129615							X
B3	1-2	08/31/09	129603						MS/MSD	
B3	2-3	08/31/09	909007-07			X	X	X		
B3	12-13	08/31/09	909007-08			X	X	X		
B3	14-15	08/31/09	129604	129616					X	X
B4	2-2.5	08/31/09	909007-09			X	X	X		
B4	3-3.5	09/01/09	129607	129617					X	X
B4	13-14	09/01/09	129608	129618					X	X
B4	14-14.5	09/01/09	909007-10				MS/MSD	MS/MSD		
B4	14.5-15	08/31/09	909007-11			X				
B5	0.5-1	09/02/09	130228	130229					MS/MSD	MS/MSD
B5-1	1-1.5	09/02/09	909018-01			X	X	X		
B5	14-14.5	09/02/09	130230						X	X
B5-2	14.5-15	09/02/09	909018-02			X	X	X		
B6-1	0.5-1	09/02/09	909018-03			X	MS/MSD	MS/MSD		
B6	1-1.5	09/02/09	130231						X	X
B6	14-14.5	09/02/09	130232						X	X
B6-2	14.5-15	09/02/09	909018-04			X	X	X		
B7	0-1	8/31/2009	909007-01	129597	129609	Not Analyzed	Not Analyzed	Not Analyzed	X	X
B7	0-1	11/11/09	911053-06			X	X	X		
B7	14-15	08/31/09	909007-02	129598	129610	Not Analyzed	Not Analyzed	X	X	X
B7	14-15	11/11/09	911053-07			X	X	X		
B8-1	1-1.5	09/02/09	909018-05			X	X	X		
B8	2.75-3	09/02/09	130233						X	X
B8-3	8-8.5	09/02/09	909018-09			MS/MSD				
B8	13-14	09/02/09	130234						X	X
B8-2	14-15	09/02/09	909018-06			X	X	X		
B9	0-2	08/31/09	909007-03	129599	129611	Not Analyzed	Not Analyzed	Not Analyzed	X	X
B9	0-1	11/11/09	911053-04			X	X	X		
B9	14-15	8/31/2009	909007-04	129600	129612	Not Analyzed	Not Analyzed	Not Analyzed	X	X
B9	14-15	11/11/09	0911053-05			X	X	X		
B10	1-2	09/02/09	130235						X	X
B10-1	2-3	09/02/09	909018-07			X	X	X		
B10	11.5-12	09/02/09	130236						X	X
B10-2	13-14	09/02/09	909018-08			X	X	X		
B10	14-15	09/02/09	130237						Hold	Hold

Associated Trip Blanks

TB1		11/9/09	911053-01	X				
TB		09/01/09	909007-14	X				
TB		09/03/09	909018-10	Hold				

Hold - Sample placed on hold pending analysis of associated samples.

Not Analyzed - Sample was submitted to the lab but not marked for analysis. Location was resampled on November 11.

MS/MSD - Sample to be used for matrix spike / matrix spike duplicate.

TB - trip blank associated with soil samples

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TABLE 3 - Summary of Groundwater Samples Submitted for Laboratory Analyses

Field ID	Collection Date	TAL Metals	VOCs	S-VOCs	Perchlorate	Explosives	Lab ID	
MW1	9/9/2009	X	X	X	X	X	0909042-08A	131890
MW2	9/8/2009	X	X	X	X	X	0909042-03A	131885
MW2F	9/8/2009	X			X	X	0909042-04A	131886
MW3	9/9/2009	X	X	X	X	X	0909042-06A	131888
MW3F	9/9/2009	X	X	X	X	X	0909042-07A	131889
ASSOCIATED QC SAMPLES								
EQB1	9/8/2009	X	X	X	X	X	0909042-02A	131883
EQB2	0/9/2009	X	X	X	X	X	0909042-05A	131887
TB	9/8/2009		X				131884	
TB	9/8/2009		X				0909042-01A	

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Table 4 - Maximum Concentrations Detected in Surface Soil Compared to Background and Media-Specific Concentrations for Residential Land Use

Data Reported in mg/Kg

COC	CAS	GWP Res	SAI Res	UTL	UCL	Sample ID	Max Detect	Top Depth	Bottom Depth	Sample Date
N-Nitrosodi-n-propylamine	621-64-7	4.15E-02	4.10E-02			B1 0-1	5.51E-01	0	-1	8/31/2009
Arsenic	7440-38-2	7.65E+00	2.00E+01	6.12E+00	2.73E+00	B1 0-1'	5.59E+00	0	-1	11/11/2009
Antimony	7440-36-0	8.20E+00	7.25E+01			B3 12-13	9.22E+00	-12	-13	8/31/2009
Aluminum	7429-90-5	2.60E+07	1.55E+05	2.58E+04	1.20E+04	B3 2-3	4.15E+04	-2	-3	8/31/2009
Vanadium	7440-62-2	5.20E+03	4.84E+02	5.00E+01	2.98E+01	B3 2-3	4.32E+01	-2	-3	8/31/2009
Nickel	7440-02-0	7.30E+01	1.87E+03			B4 14-14.5	3.74E+01	-14	-14.5	9/1/2009
Potassium	7440-09-7			4.95E+02	3.06E+02	B5-1	2.53E+03	-1	-1.5	9/2/2009
Barium	7440-39-3	4.00E+02	2.61E+04			B5-2	1.86E+02	-14.5	-15	9/2/2009
Calcium	7440-70-2					B5-2	2.28E+03	-14.5	-15	9/2/2009
Chromium	7440-47-3	2.40E+03	5.90E+04			B5-2	3.16E+01	-14.5	-15	9/2/2009
Magnesium	7439-95-4					B5-2	4.48E+03	-14.5	-15	9/2/2009
Iron	7439-89-6					B6-2	3.77E+04	-14.5	-15	9/2/2009
Beryllium	7440-41-7	1.85E+00	4.56E+01			B6-2	1.92E+00	-14.5	-15	9/2/2009
n-Butylbenzene	104-51-8	1.46E+02	2.70E+03			B7 0-1'	1.11E-02	0	-1	11/11/2009
Naphthalene	91-20-3	7.30E+01	1.81E+02			B7 0-1'	1.63E-02	0	-1	11/11/2009

If the UTL or UCL field is blank, a site-specific background concentration was not developed for the analyte/COC or the depth interval represented by the sample (Shaw, 2004).

If an MSC field is blank, calculation of an MSC based on human-health is not required. (Compounds for which Calculation of a Human Health MSC is Not Required" available on the TCEQ website at http://www.tceq.state.tx.us/remediation/rrr.html)

Note: Maximum concentration exceeds shaded value

Monday, February 01, 2010

Table 4 - Maximum Concentrations Detected in Surface Soil Compared to Background and Media-Specific Concentrations for Residential Land Use

Data Reported in mg/Kg

COC	CAS	GWP Res	SAI Res	UTL	UCL	Sample ID	Max Detect	Top Depth	Bottom Depth	Sample Date
Cobalt	7440-48-4	2.19E+02	1.53E+04			B8-2	5.11E+01	-14	-15	9/2/2009
Manganese	7439-96-5	1.71E+03	1.68E+04			B8-2	1.04E+03	-14	-15	9/2/2009

If the UTL or UCL field is blank, a site-specific background concentration was not developed for the analyte/COC or the depth interval represented by the sample (Shaw, 2004).

If an MSC field is blank, calculation of an MSC based on human-health is not required. (Compounds for which Calculation of a Human Health MSC is Not Required" available on the TCEQ website at http://www.tceq.state.tx.us/remediation/rrr.html)

Note: Maximum concentration exceeds shaded value

Table 5 - Maximum Concentrations Detected in Subsurface Soils Compared to Background and Media-Specific Concentrations for Residential Land Use

Data Reported in mg/Kg

COC	CAS	GWP Res	SAI Res	Sample ID	Max Detect	Top Depth	Bottom Depth	Sample Date
Zinc	7440-66-6	1.10E+03	5.9E+04	B2 21-22.5	6.44E+01	-21	-22.5	9/1/2009
Sodium	7440-23-5			B2 21-22.5	9.17E+02	-21	-22.5	9/1/2009
Lead	7439-92-1	5.49E+02	5.0E+02	B2 21-22.5	3.17E+01	-21	-22.5	9/1/2009
Copper	7440-50-8	1.30E+02	1.0E+04	B2 21-22.5	1.33E+01	-21	-22.5	9/1/2009

If the UTL or UCL field is blank, a site-specific background concentration was not developed for the analyte/COC or the depth interval represented by the sample (Shaw, 2004).

If an MSC field is blank, calculation of an MSC based on human-health is not required. (Compounds for which Calculation of a Human Health MSC is Not Required" available on the TCEQ website at http://www.tceq.state.tx.us/remediation/rrr.html)

Note: Maximum concentration exceeds shaded value

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Table 6 - Maximum Concentrations Detected in Surface Soils Compared to Background and Media-Specific Concentrations for Commercial / Industrial Land Use

Data Reported in mg/Kg

COC	CAS	GWP Ind	SAI Ind	UTL	UCL	Sample ID	Max Detect	Top Depth	Bottom	Sample Date
N-Nitrosodi-n-propylamine	621-64-7	4.09E-03	1.64E-01			B1 0-1	5.51E-01	0	-1	8/31/2009
Arsenic	7440-38-2	7.65E+00	2.00E+02	6.12E+00	2.73E+00	B1 0-1'	5.59E+00	0	-1	11/11/2009
Potassium	7440-09-7			4.95E+02	3.06E+02	B5-1	2.53E+03	-1	-1.5	9/2/2009
n-Butylbenzene	104-51-8	4.09E+02	5.74E+03			B7 0-1'	1.11E-02	0	-1	11/11/2009
Naphthalene	91-20-3	2.04E+02	2.68E+02			B7 0-1'	1.63E-02	0	-1	11/11/2009

If the UTL or UCL field is blank, a site-specific background concentration was not developed for the analyte/COC or the depth interval represented by the sample (Shaw, 2004).

If an MSC field is blank, calculation of an MSC based on human-health is not required. (Compounds for which Calculation of a Human Health MSC is Not Required" available on the TCEQ website at http://www.tceq.state.tx.us/remediation/rrr.html)

Note: Maximum concentration exceeds shaded value

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Table 7 - Maximum Concentrations Detected in Subsurface Soils Compared to Background and Media-Specific Concentrations for Commercial / Industrial Land Use

Data Reported in mg/Kg

COC	CAS	GWP Ind	UTL	UCL	Sample ID	Max Detect	Top Depth	Bottom Depth	Sample Date
Copper	7440-50-8	1.3E+02	1.18E+01	5.26E+00	B2 21-22.5	1.33E+01	-21	-22.5	9/1/2009
Sodium	7440-23-5		1.91E+02	7.14E+01	B2 21-22.5	9.17E+02	-21	-22.5	9/1/2009
Lead	7439-92-1	5.5E+02	1.29E+01	8.32E+00	B2 21-22.5	3.17E+01	-21	-22.5	9/1/2009
Zinc	7440-66-6	3.1E+03	2.48E+01	1.22E+01	B2 21-22.5	6.44E+01	-21	-22.5	9/1/2009
Antimony	7440-36-0	8.2E+00	1.60E+00	4.68E-01	B3 12-13	9.22E+00	-12	-13	8/31/2009
Vanadium	7440-62-2	7.2E+01	5.00E+01	2.98E+01	B3 2-3	4.32E+01	-2	-3	8/31/2009
Aluminum	7429-90-5	7.6E+07	2.58E+04	1.20E+04	B3 2-3	4.15E+04	-2	-3	8/31/2009
Nickel	7440-02-0	2.0E+02	1.52E+01	6.15E+01	B4 14-14.5	3.74E+01	-14	-14.5	9/1/2009
Magnesium	7439-95-4		2.18E+03	8.04E+02	B5-2	4.48E+03	-14.5	-15	9/2/2009
Barium	7440-39-3	4.0E+02	9.89E+01	5.89E+01	B5-2	1.86E+02	-14.5	-15	9/2/2009
Chromium	7440-47-3	2.4E+03	3.86E+01	1.64E+01	B5-2	3.16E+01	-14.5	-15	9/2/2009
Calcium	7440-70-2		4.00E-01	1.11E-01	B5-2	2.28E+03	-14.5	-15	9/2/2009
Beryllium	7440-41-7	1.9E+00	8.53E-01	5.27E-01	B6-2	1.92E+00	-14.5	-15	9/2/2009
Iron	7439-89-6		4.10E+04	1.72E+04	B6-2	3.77E+04	-14.5	-15	9/2/2009
Manganese	7439-96-5	1.4E+03	3.44E+02	6.84E+01	B8-2	1.04E+03	-14	-15	9/2/2009

If the UTL or UCL field is blank, a site-specific background concentration was not developed for the analyte/COC or the depth interval represented by the sample (Shaw, 2004).

If an MSC field is blank, calculation of an MSC based on human-health is not required. (Compounds for which Calculation of a Human Health MSC is Not Required" available on the TCEQ website at http://www.tceq.state.tx.us/remediation/rrr.html)

Note: Maximum concentration exceeds shaded value

Table 7 - Maximum Concentrations Detected in Subsurface Soils Compared to Background and Media-Specific Concentrations for Commercial / Industrial Land Use

Data Reported in mg/Kg

COC	CAS	GWP Ind	UTL	UCL	Sample ID	Max Detect	Top Depth	Bottom Depth	Sample Date
Cobalt	7440-48-4	6.1E+02	6.92E+00	3.34E+00	B8-2	5.11E+01	-14	-15	9/2/2009

If the UTL or UCL field is blank, a site-specific background concentration was not developed for the analyte/COC or the depth interval represented by the sample (Shaw, 2004).

If an MSC field is blank, calculation of an MSC based on human-health is not required. (Compounds for which Calculation of a Human Health MSC is Not Required" available on the TCEQ website at http://www.tceq.state.tx.us/remediation/rrr.html)

Note: Maximum concentration exceeds shaded value

Table 8 - Calculation of Media-Specific Concentrations for Groundwater Protection Using TRRP PCL Equations

DETECTED COCS

COC	pH	Volumetric Water Content (θws)	Soil-Water Partition Coefficient (kd)	Soil Bulk Density (ρb)	Henry's Law Constant(H')	Volumetric air content (θas)	Soil-leachate partition factor (Ksw)	Critical GW PCL	Lateral Dilution Factor (LDF)	Tier 2 ^{GW}SOIL	Source of Site-Specific Data
Units			L/kg				mg/L-water/mg/kg-soil	mg/L		mg/Kg	
N-nitrosodi-n-propylamine		0.16	0.039448451	1.62	0	0.21	7.235163204	1.50E-02	20	4.15E-02	Kd = Koc * foc (default values used)
Arsenic		0.16	25.00000178	1.62	0	0.21	0.039842594	1.00E-02	20	5.02E+00	
Antimony		0.16	45.00000347	1.62	0	0.21	0.022173554	6.00E-03	20	5.41E+00	
Aluminum	5-9	0.16	35300	1.62	0	0.21	2.83285E-05	3.70E+01	20	2.61E+07	Average range of pH - Residential land use
Aluminum	5-9	0.16	35300	1.62	0	0.21	2.83285E-05	1.00E+02	20	7.06E+07	Commerical / Industrial GW PCL
Barium		0.16	11	1.62	0	0.21	0.090100111	2.00E+00	20	4.44E+02	Residential & Commercial/Industrial
Vanadium		0.16	1000	1.62	0	0.21	0.000999901	2.60E-01	20	5.20E+03	
Chromium		0.16	1199.999857	1.62	0	0.21	0.000833265	1.00E-01	20	2.40E+03	
Beryllium		0.16	23	1.62	0	0.21	0.043292357	4.00E-03	20	1.85E+00	
Manganese		0.16	50.11872887	1.62	0	0.21	0.019913379	1.70E+00	20	1.71E+03	
Lead	5-9	0.16	1830	1.62	0	0.21	0.000546419	1.50E-02	20	5.49E+02	Average range of pH

Site-Specific L_1/L_2

COC	^{GW}SOIL	Depth from top of soil to top of GW (L2)		Thickness of Affected Soil (L1)		Ratio L2/L1	Tier 2 ^{GW}Soil	Source of Site-Specific Data
Units		ft	cm	ft	cm		mg/kg	
Arsenic	5.02E+00	22.85	696.468	15	457.2	1.523333333	7.646757745	Delineated to background at 15 feet.
Antimony	5.41E+00	22.85	696.468	15	457.2	1.523333333	8.244054956	Based on B6

Note: These values replaced the default GWPs in the data tables.

Table 8 - Calculation of Media-Specific Concentrations for Groundwater Protection Using TRRP PCL Equations

NON-DETECTED COCS

COC	pH	Volumetric Water Content (θws)	foc (default)	Koc	Soil-Water Partition Coefficient (kd)	Soil Bulk Density (ρb)	Henry's Law Constant(H')	Volumetric air content (θas)	Soil-leachate partition factor (Ksw)	Critical GW PCL	Lateral Dilution Factor (LDF)	Tier 2 ^{GW}SOIL	Source of Site-Specific Data
Units					L/kg			mg/L-water/mg/kg		mg/L		mg/Kg	
2-Amino-4,6-dinitrotoluene		0.16	0.002	562.34133	1.12468265	1.62	1.19E-07	0.21	0.817362	6.10E-03	20	1.49E-01	residential land use
2-Amino-4,6-dinitrotoluene		0.16	0.002	562.34133	1.12468265	1.62	1.19E-07	0.21	0.817362	1.70E-02	20	4.16E-01	C/I land use
4-Bromophenylphenyl ether		0.16	0.002	145136.15	290.2722937	1.62	9.66E-03	0.21	0.0034439	6.1E-05	20	3.53E-01	residential land use
4-Bromophenylphenyl ether		0.16	0.002	145136.15	290.2722937	1.62	9.66E-03	0.21	0.0034439	6.1E-03	20	3.53E+01	C/I land use
4-chlorophenylphenyl ether		0.16	0.002	13101.126	26.20225159	1.62	1.30E-02	0.21	0.0380189	5.70E-05	20	3.00E-02	residential land use
4-chlorophenylphenyl ether		0.16	0.002	13101.126	26.20225159	1.62	1.30E-02	0.21	0.0380189	1.90E-04	20	1.00E-01	C/I land use
Bis(2-chloroethyl)ether		0.16	0.002	15.488168	0.030976336	1.62	8.90E-04	0.21	7.7007734	8.3E-04	20	2.15E-03	residential land use
Bis(2-chloroethyl)ether		0.16	0.002	15.488168	0.030976336	1.62	8.90E-04	0.21	7.7007734	8.3E-02	20	2.15E-01	C/I land use
Benzo(a)anthracene		0.16	0.002	354813.55	709.6270901	1.62	1.39E-04	0.21	0.001409	1.3E-03	20	1.77E+01	residential land use
Benzo(a)anthracene		0.16	0.002	354813.55	709.6270901	1.62	1.39E-04	0.21	0.001409	1.3E-01	20	1.77E+03	C/I land use
Indeno(1,2,3-cd)pyrene		0.16	0.002	3467368.2	6934.7364	1.62	2.85E-06	0.21	0.0001442	1.3E-03	20	1.73E+02	residential land use
Indeno(1,2,3-cd)pyrene		0.16	0.002	3467368.2	6934.7364	1.62	2.85E-06	0.21	0.0001442	1.3E-01	20	1.73E+04	C/I land use
Thallium		0.16	0.002		43.65158179	1.62	0.00E+00	0.21	0.022857	2.00E-03	20	1.75E+00	residential land use
Thallium		0.16	0.002		43.65158179	1.62	0.00E+00	0.21	0.022857	2.00E-03	20	1.75E+00	C/I land use

Table 9 - Maximum Concentrations Detected in Groundwater Compared to Background and Media-Specific Concentrations for Residential and Commercial / Industrial Land Use

Data Reported in mg/L

Sample ID	COC	CAS	GW-Res	GW-Ind	UCL Dissolved	UCL Total	UTL Dissolved	UTL Total	Max Detect	Top Depth	Bottom Depth	Sample Date
MW2	Potassium	7440-09-7			2.09E+00	2.19E+00	2.98E+00	2.74E+00	3.67E+01	-16	-28	9/8/2009
MW2	Mercury	7439-97-6	2.0E-03	2.0E-03		5.21E-05		7.93E-05	4.80E-03	-16	-28	9/8/2009
MW2	Magnesium	7439-95-4			2.18E+02	2.19E+02	4.59E+02	4.62E+02	2.46E+02	-16	-28	9/8/2009
MW2	Calcium	7440-70-2			2.03E+02	2.04E+02	3.01E+02	3.02E+02	4.10E+02	-16	-28	9/8/2009
MW2	Cadmium	7440-43-9	5.0E-03	5.0E-03	1.62E-03	8.67E-04	5.10E-03	2.29E-03	6.00E-03	-16	-28	9/8/2009
MW2	Barium	7440-39-3	2.0E+00	2.0E+00	5.04E-02	6.07E-02	1.20E-01	1.28E-01	1.44E-01	-16	-28	9/8/2009
MW2	Aluminum	7429-90-5	3.7E+01	1.0E+02	3.72E-01	7.16E-01	1.86E+00	2.68E+00	5.00E-01	-16	-28	9/8/2009
MW2F	Sodium	7440-23-5							1.12E+03	-16	-28	9/8/2009
MW3	Zinc	7440-66-6	1.1E+01	3.1E+01	2.74E-02	1.44E-02	5.92E-02	3.02E-02	4.90E-01	-20	-30	9/9/2009
MW3	Manganese	7439-96-5	1.7E+00	1.4E+01	3.79E+00	3.81E+00	7.84E+00	7.82E+00	2.65E-01	-20	-30	9/9/2009
MW3	Iron	7439-89-6			5.13E-01	8.87E-01	4.23E+00	4.01E+00	7.30E-01	-20	-30	9/9/2009
MW3F	4-Chloro-3-methylphenol	59-50-7	1.8E-01	5.1E-01					1.36E-03	-20	-30	9/9/2009

Note: Maximum concentration exceeds shaded value

If the UTL or UCL field is blank, a site-specific background concentration was not developed for the analyte/COC (Shaw, 2004).

If an MSC field is blank, calculation of an MSC based on human-health is not required. (Compounds for which Calculation of a Human Health MSC is Not Required" available on the TCEQ website at http://www.tceq.state.tx.us/remediation/rrr.html)

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Table 10 - Evaluation of Non-dected COCs in Soil with One or More SQLs Greater than the Respective MSCs

Analyte	Summary	Conclusion	Standard Attained
1,2,3 -Trichloroprane	Analyzed using Method 8260 and 8260 SIM. SQLs for SIM < MCSs. MQLs for most sensitive method were less than MSCs.	COC not detected.	1
1,2-diphenylhydrazine	Analyzed using 8270. SQL slightly > MSC. Select samples re-analyzed using SIM. SIM SQL < MSC.	COC not detected.	1
1,2-Dinitrobenzene (DNB)	No CRQL. Analyzed using 8330. SQL and MQL > GWP-res.	Laboratory reviewed raw data and determined explosives were not present in the samples.	1
2,4-Dinitrotoluene	Analyzed using 8270, 8270 SIM and 8330. MQL for most sensitive method > than GWP-res. SQL < MQL.	Laboratory reviewed raw data and determined explosives were not present in the samples. MQL used as cleanup value.	1
2,6-Dintrotoluene	Analyzed using 8270. Select samples re-analyzed using SIM. SIM SQL < MSC.	COC not detected.	1
2-Amino-4,6-dinitrotoluene	Analyzed using 8330. SQL > MSC but MQL < MSC. No CRQL.	Laboratory reviewed raw data and determined explosives were not present in the samples.	1
3,3-dichlorobenzidine	Analyzed using 8270 and 8270 SIM. SQLs < MQLs. MQL for most sensitive method > GWP.	MQL used as cleanup value.	1
4-Amino-2,6-dinitrotoluene	Analyzed using 8330. No CRQL. SQL > MQL and GWP MSC. MQL < GWP MSC.	Laboratory reviewed raw data and determined explosives were not present in the samples.	1
Bromophenyl phenylether, 4-	Analyzed using 8270. SQLs and MQLs > GWP. Lower SQLs achieved on different date > GWP. Developed site-specific GWP. SQLs and MQLs < site-specific GWP.	SQL < site-specific GWP.	2
4-chlorophenylphenylether	Analyzed using 8270 and 8270 SIM. SQL slightly > GWP. Developed site-specific GWP.	SQL < site-specific GWP.	2
Benzidine	Analyzed using 8270 and re-analyzed with SIM. SIM SQLs > MSCs.	Most sensitive method used. MQL used as cleanup value.	1
Benzo(a)anthracene	Analyzed using 8270 and re-analyzed with SIM. SIM SQLs < default GWP for select samples. Calculated site-specific GWP.	SQL < site-specific GWP.	2
Benzo(a)pyrene	Analyzed using 8270 and re-analyzed with SIM. SIM SQLs < MSCs.	COC not detected.	1
Benzo(b)fluoranthene	Analyzed using 8270 and re-analyzed with SIM. SIM SQLs < MSCs.	COC not detected.	1
Bis(2-chloroethoxy)methane	Analyzed using 8270 and re-analyzed with SIM. MQLs and SIM SQLs > GWP. SQL < MQL	Most sensitive method used. MQL used as cleanup value.	1
Bis(2-chloroethyl)ether	Analyzed using 8270 and 8270 SIM. MQLs > default GWP. Developed site-specific GWP. MQLs > site-specific GWP.	Laboratory confirmed that the samples were analyzed using the most sensitive method available. MQL was used as cleanup value.	1
Cyanide	SQLs for samples collected on 11/11/2009 were > GWP. Reviewed analytical report. Result in EDDs was incorrectly recorded as 10X SQL in lab report. Corrected result in EDD.	SQLs < MSC. COC was not detected.	1
Dibenz(a,h)anthracene	SQLs for samples collected on 11/11/2009 were > MSCs. Laboratory confirmed samples were also analyzed using SIM and revised report. SIM SQLs < MSCs.	COC not detected.	1
Hexachlorobenzene	SQL for one sample > than GWP res. SQLs for all other samples < GWP res.	COC not detected.	1

Table 10 - Evaluation of Non-dected COCs in Soil with One or More SQLs Greater than the Respective MSCs

Analyte	Summary	Conclusion	Standard Attained
Indeno(1,2,3-cd)pyrene	Analyzed using 8270 and re-analyzed using 8270 SIM. Most SIM SQLs < GWP. Calculated site-specific GWP.	All SQLs < site-specific GWP.	2
N-nitrosodimethylamine	Analyzed using 8270 and re-analyzed using 8270 SIM. SIM SQLs > GWP. SQLs < MQLs.	Most sensitive method used. MQL used as cleanup value.	1
N-nitrosodi-n-propylamine	Analyzed using 8270 and 8270 SIM. SIM SQLs > GWP. SIM SQLs < MQLs.	Most sensitive method used. MQL used as cleanup value.	1
Pentachlorophenol	Analyzed using 8270 and re-analyzed using 8270 SIM. SIM SQLs < GWP.	COC not detected.	1
RDX	Analyzed using 8330. SQLs and MQLs > GWP. No CRQL.	Laboratory reviewed raw data and determined explosives were not present in the samples.	1
Thallium	Analyzed using 6010B. SQL > GWP-res. Calculated site-specific GWP. SQLs > Site-specific GWP. MQL > CRQL. Laboratory revised report to indicate lower SQLs and MQLs. Revised SQLs were less than GWP MSC.	COC not detected. A site-specific GWP was used.	2

Table 11 - Evaluation of Non-detected COCs in Groundwater with One or More SQLs Greater than the Respective MSCs

Analyte	Summary	Conclusion	Standard Attained
1,1 Dichloropropene	SQLs for 8270 > MSCs. Re-analyzed using SIM. SIM SQLs < MSCs.	COC was not detected.	1
1,2,3-Trichloropropane	Elevated SQLs using SIM. MQL for most sensitive method > MSCs.	MQL used a cleanup value.	1
1,2-Dibromo-3-chloropropane	8270 SQLs > MSCs. Re-analyzed using SIM. SQL < MSC.	COC is not detected.	1
1,2-Dibromoethane	8270 SQLs > MSCs. Re-analyzed using SIM. SQL < MSC.	COC is not detected.	1
1,2-Diphenylhydrazine	8270 SQLs > MSCs. Re-analyzed using SIM. SQL < MSC.	COC is not detected.	1
2,4-Dinitrotoluene	8270 SQLs > both MSCs. Re-analyzed using SIM. SIM SQLs > res-MSC. Analyzed using 8330. 8330 SQLs < MSCs.	COC is not detected.	1
2,6-Dinitrotoluene	Analyzed with 8270 and 8270 SIM. MQL for most sensitive method > res and ind MSCs. SQL for most sensitive method only > res MSC.	MQL for most sensitive method used as cleanup value.	1
2-Naphthylamine	Analyzed with 8270 and 8270 SIM. SQL of most sensitive method < MSCs.	COC is not detected.	1
3,3-Dichlorobenzidine	Analyzed with 8270 and 8270 SIM. MQL for most sensitive method > both MSCs.SQL of most sensitive method is > res-MSC.	MQL used a cleanup value.	1
4-Aminobiphenyl	Analyzed with 8270 and 8270 SIM. MQL for most sensitive method > both MSCs. SQL of most sensitive method > res-MSC.	MQL used as cleanup value.	1
4-Bromophyenyl phenyl ether	Analyzed with 8270 and 8270 SIM. MQL for most sensitive method > both MSCs. SQL for most sensitive method > res-MSC.	MQL used as cleanup value.	1
4-Chlorophenylphenylether	Analyzed with 8270 and 8270 SIM. SIM SQL > res-MSC and < MQL. MQL of most sensitive method > res-MSC.	MQL used as cleanup value.	1
Antimony	Analyzed with 6010. MQL and SQLs > both MSCs. Lab confirmed that lower MDL, SQL, and MQL were obtained. Revised report	COC is not detected.	1
Benzidine	Analyzed with 8270 and 8270 SIM. SQLs > both MSCs. MQL > both MSCs.	MQL used as cleanup value.	1
Benzo(a)anthracene	Analyzed with 8270 and 8270 SIM. SQLs for most sensitive method < MSCs.	COC is not detected.	1
Benzo(a)pyrene	Analyzed with 8270 and 8270 SIM. SQLs for most sensitive method < MSCs.	COC is not detected.	1
Benzo(b)fluoranthene	Analyzed with 8270 and 8270 SIM. SQLs for most sensitive method < MSCs.	COC is not detected.	1

Table 11 - Evaluation of Non-detected COCs in Groundwater with One or More SQLs Greater than the Respective MSCs

Analyte	Summary	Conclusion	Standard Attained
Bis(2-chloroethoxy)methane	Analyzed with 8270 and 8270 SIM. SQLs for most sensitive method < MSCs.	COC is not detected.	1
bis(2-chloroethyl)ether	Analyzed with 8270 and 8270 SIM. SQLs for most sensitive method < MSCs.	COC is not detected.	1
Bromodichloromethane	Analyzed using 8260. SQL is only sightly > (0.00161 vs. 0.0014) than res-MSC. The SQL for the trip blank < res-MSC suggesting either maxtrix inteference OR a lower MQL is possible. Lab verifified samples were analyzed using SIM. SIM SQLs < than MSCs.	COC is not detected.	1
Dibenzo(a,h)anthracene	Analyzed with 8270 and 8270 SIM. SQLs for most sensitive method < MSCs.	COC is not detected.	1
Indeno(1,2,3-cd)pyrene	Analyzed with 8270 and 8270 SIM. SQLs for most sensitive method < MSCs.	COC is not detected.	1
N-nitrosodimethylamine	Analyzed with 8270 and 8270 SIM. SQLs higher than both MSCs. MQL is higher than both MSCs.	MQL used as cleanup value.	1
N-nitrosodi-n-propylamine	Analyzed with 8270 and 8270 SIM. SQLs higher than both MSCs. MQL is higher than both MSCs.	MQL used as cleanup value.	1
Pentachlorophenol	Analyzed with 8270 and 8270 SIM. SQLs for most sensitive method < MSCs.	COC is not detected.	1
Thallium	Analyzed using 6010. SQLs > GW MSCs and CRQLs. Laboratory re-analyzed samples using a more sensitive method (6020). SQLs < MSCs.	COC is not detected.	1

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Appendix 4 - Soil Data Summary Table Based on Residential Land Use

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Appendix 8 – Groundwater Laboratory Data Packages and Associated Data Usability Summaries

Appendix 9 – Waste Classification and Disposal Documentation

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APPENDIX 1

FIELD ACTIVITY REPORTS

Field Activity Report
Landfill 19 Closure Assessment
Longhorn Army Ammunition Plant (LHAAP)
Karnack, TX

Activity Period – August 31 – September 2, 2009

This Field Activity Report, prepared by Phyllis Primrose (Regulatory Compliance & Guidance), documents the field activities conducted at LHAAP-19 (Site) on Monday August 31 thru Wednesday September 2, 2009. The field activities were implemented following the Landfill Closure Assessment Work Plan, dated August 5, 2009 (the Work Plan). Photographs taken during the field activities are provided as Attachment 1.

Field personnel included Phyllis Primrose (Texas-licensed Professional Geoscientist), Bobby Ragon (Texas-licensed driller), Sean Hill, and Jeff Tjoelker. Bobby, Sean, and Jeff were the drill crew for ETTL. A representative (Tyler Jones) from the United States Corps of Engineers (USACE) was present during the afternoon of September 1 and the morning of September 2. Field personnel attended a safety meeting each morning prior to initiating field activities. The Safety meetings were conducted by ECC. Layne Harrison (ECC Site Superintendent) was on-site each day and conducted random inspections.

Ten borings (B1 through B10) were drilled and three monitoring wells (MW1 through MW3) were constructed. Soil samples were submitted for laboratory analyses. Investigation derived wastes (IDWs) were placed in appropriate containers and stored on-site.

Field Equipment

An organic vapor monitor (OVM), rented from Farr West Environmental, was delivered by courier to RCG's headquarters on Friday August 28, 2009. The OVM was calibrated with isobutylene gas by Farr West prior to shipment. A copy of the calibration certificate is also provided in Attachment 2. Each day the OVM was zeroed in ambient air by RCG. RCG shipped the OVM to Farr West via Lone Star Overnight upon completion of the groundwater sampling event conducted on September 8 and 9, 2009.

ETTL completed a Construction Equipment Checklist each day prior to initiating drilling activities. Copies of the completed checklist are provided in Attachment 2.

Soil Borings Rationale & Design

The sample stations were located in the field using the Proposed Sampling Location Map (Figure 5) provided in the Work Plan. The vegetation (trees and grass) had been removed at each location to accommodate access with the drilling rig. The Site received rainfall on Sunday August 30, 2009 and most of the proposed sampling locations had standing water. Alamo Environmental personnel used a bulldozer to rework and stabilize the ground surface to support the drilling rig.

Borings B1, B3, B7, and B9 were completed on August 31, 2009. Borings B2 and B4 were completed on September 1, 2009. Borings B5, B6, B8, and B10 were completed on September 2, 2009. Each sampling station was located outside the fenced area alleged to be the boundary of the landfill. No evidence of landfill material (construction debris) was observed at any sample station.

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Soil samples to be submitted for laboratory analyses were selected in accordance with the Work Plan with the following modifications:

1) Due to the reworking of the ground surface, disturbed samples were not submitted for laboratory analysis. Therefore, the first sample collected may have been from 1 to 2 feet instead of 0 to 0.5 feet below ground surface (bgs). In addition, the sample volume within a 0.5-foot interval was not sufficient to fill the required sample containers. The sampling interval was limited to 1-foot. The sample to be submitted for VOC, SVOC, and metal analyses was collected from one interval. The sample to be submitted for perchlorate and explosive analyses was collected from the next (above or below) interval. This variance was discussed with and approved by Greg Osuna (Alamo Environmental) and Layne Harrison (ECC) on Tuesday September 1, 2009.

2) A third sample was submitted for laboratory analyses from boring B8 (8 to 8.5-foot interval) and from boring B10 (11.5 to 12-foot interval). Water was visibly present in the interval from boring B8 and the soil was moist in the B10 interval. A sufficient volume of soil for all analyses could not be collected from either interval. Therefore, the sample from B8 was submitted only for VOC analysis. The sample from B10 was submitted only for perchlorate and explosives. This zone (shallow "wet" or "moist" soils) was not observed in any of the other borings and is believed to be a discontinuous lens. Borings B8 and B10 are located within a topographic low which receives water from the adjacent road and landfill.

Field Procedures

Each boring was drilled using direct push technology (DPT) by or under the direct supervision of the licensed driller. Probeholes were advanced using ETTL's 4x4, truck-mounted, GeoProbe® Model 6600 hydraulic percussion hammer unit. Continuous soil sampling was accomplished using a GeoProbe® Macro Core (MC) Sampler, which is a 2.25-inch O.D. x 5-foot long barrel sampler complete with disposable MC5 PVC liners.

The soils in each sampler were immediately screened for organic vapors. Organic vapors were not detected in ambient air adjacent to the soils. Representative samples were then placed in Ziploc-type bags and allowed to sit in the sun for approximately 5 minutes. Organic vapors, when detected in the bag, were low (0.1 to 0.7 ppm) and dissipated rapidly (i.e. the meter would quickly return to 0 ppm). Soil samples were selected for laboratory analyses based on the Work Plan (surface and total depth) as well as other field observations (moisture) that indicated the potential for contamination.

The soils in each sampler were logged by the P.G. Hollow-stem augers (HSAs) were used to over-drill the DPT borings and construct the monitoring wells. The HSAs had 8.25-inch O.D.

Decontamination Procedures

The DPT equipment (MC Sampler) was hand-washed with Liqui-Nox soap in a bucket and rinsed with potable water. ETTL attempted to pressure wash the HSAs on-site in a galvanized tub. Due to mechanical issues with the on-site pressure washer, the HSAs were transported to ETTL's headquarters for steam cleaning and returned to the Site.

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Borings - Plugging and Abandonment

Bentonite chips were used to plug the DPT borings. The chips were hydrated with potable water.

Groundwater Rationale & Design

Monitoring well MW3 was constructed at the location of boring B9. Monitoring well MW2 was constructed at the location of boring B2. Monitoring well MW1 was constructed at the location of boring B5. Wet (water visibly present) soils were typically encountered at a depth of 25 to 26 feet below ground surface (bgs) with a thickness interval of 1 foot. HSAs were added to the DPT rig. Each well was installed using 8.25-inch outside diameter HSAs and constructed with 2-inch schedule 40 PVC. The screen interval was constructed using ten (10 feet) of 0.010-inch slotted well screen. The filter pack (20/40 sand) was measured to two feet above the screen. A two-foot seal was constructed on the filter pack using bentonite pellets. Potable water was used to hydrate the pellets. The seal was allowed to cure a minimum of 4 hours before grouting. Portland cement was then used to fill the remaining annulus to the ground surface.

Due to the observed ponding of rain water, the wells were not completed at the ground surface. Risers (stickups) of varied lengths were used on the monitoring wells to prevent flooding of the wells. The risers ranged from approximately 0.5 ft (MW3) to 2.5 ft (MW1). This change was also discussed with and approved by Layne Harrison and Greg Osuna on September 1, 2009.

Sample Packaging and Shipping

The samples were packaged and shipped in accordance with the Work Plan. Phyllis Primrose served as the primary sample custodian. Samples to be analyzed for perchlorate and explosives were hand-delivered to Ana-lab by ETTL on a daily basis. Soil samples to be analyzed by Alamo Analytical were shipped via Lone Star Overnight or hand-delivered by Alamo personnel.

Phyllis Primrose transferred soil samples to Jeff Tjoekler (ETTL) on September 1 and 2, 2009. Soil samples were transferred from Phyllis Primrose to Gilbert Oliveras (Alamo) on September 3, 2009. Sample Shipment Checklists were completed by Jeff Tjoekler (ETTL) and Gilbert Olivares. The respective chain of custody forms were signed by each recipient. Copies of the completed Sample Shipment Checklists and chain of custody forms are provided as Attachment 3.

Investigation Derived Wastes

ETTL provided metal, 55-gallon containers as described in the Work Plan. The containers were stored on wooden pallets (also provided by ETTL) near the monitoring wells. Due to the large volume of cuttings generated with the HSAs, the DPT cuttings from the other borings were merged with the HSA cuttings. Each container was labeled with the site name (LHAAP-19), contents, and date using a yellow paint-pen.

The drums of IDW were inventoried by RCG on September 2, 2009. Soil cuttings were stored in a total of seven 55-gallon containers.

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ATTACHMENT 1 - PHOTOGRAPHS

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View to the south along western boundary of landfill during the drilling of boring B5 and construction of monitoring well MW3 on August 31, 2009.

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View to the North along drainage ditch outside western boundary of landfill on August 31, 2009. Water is still present from rainfall event on Sunday August 30, 2009. Fence represents western boundary of landfill.

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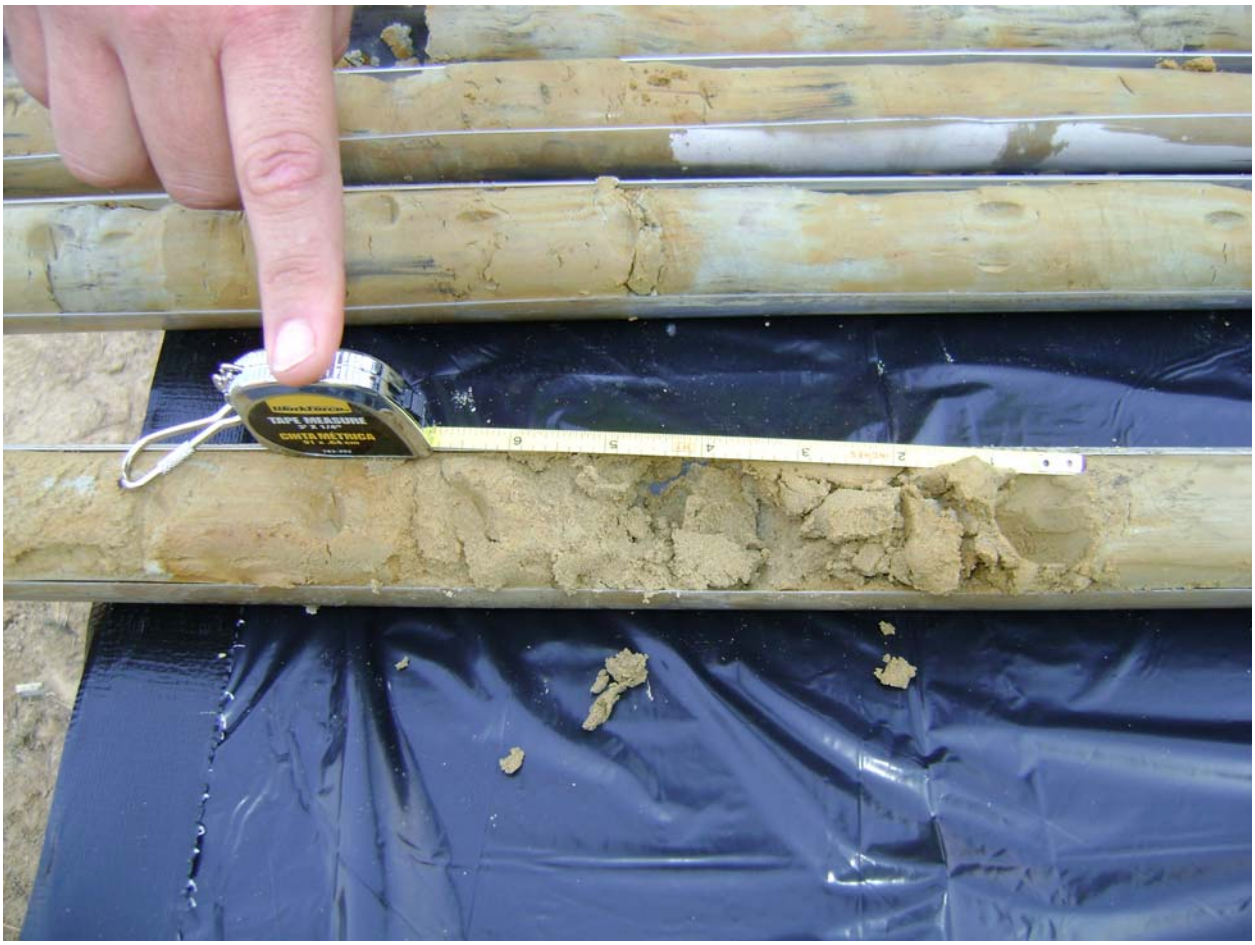

Lithology observed in boring B8 on September 2, 2009. A six-inch, wet sand seam was observed starting at 8 feet below ground surface. Clay was observed above and below the sand seam. Note firm consistency (thumb impression < 1/4 inch) of clay in background core.

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Ice chest prepared for shipment of soil samples on September 1, 2009. String tape was used to secure lid. Signed custody seal was taped to lid inside cooler.

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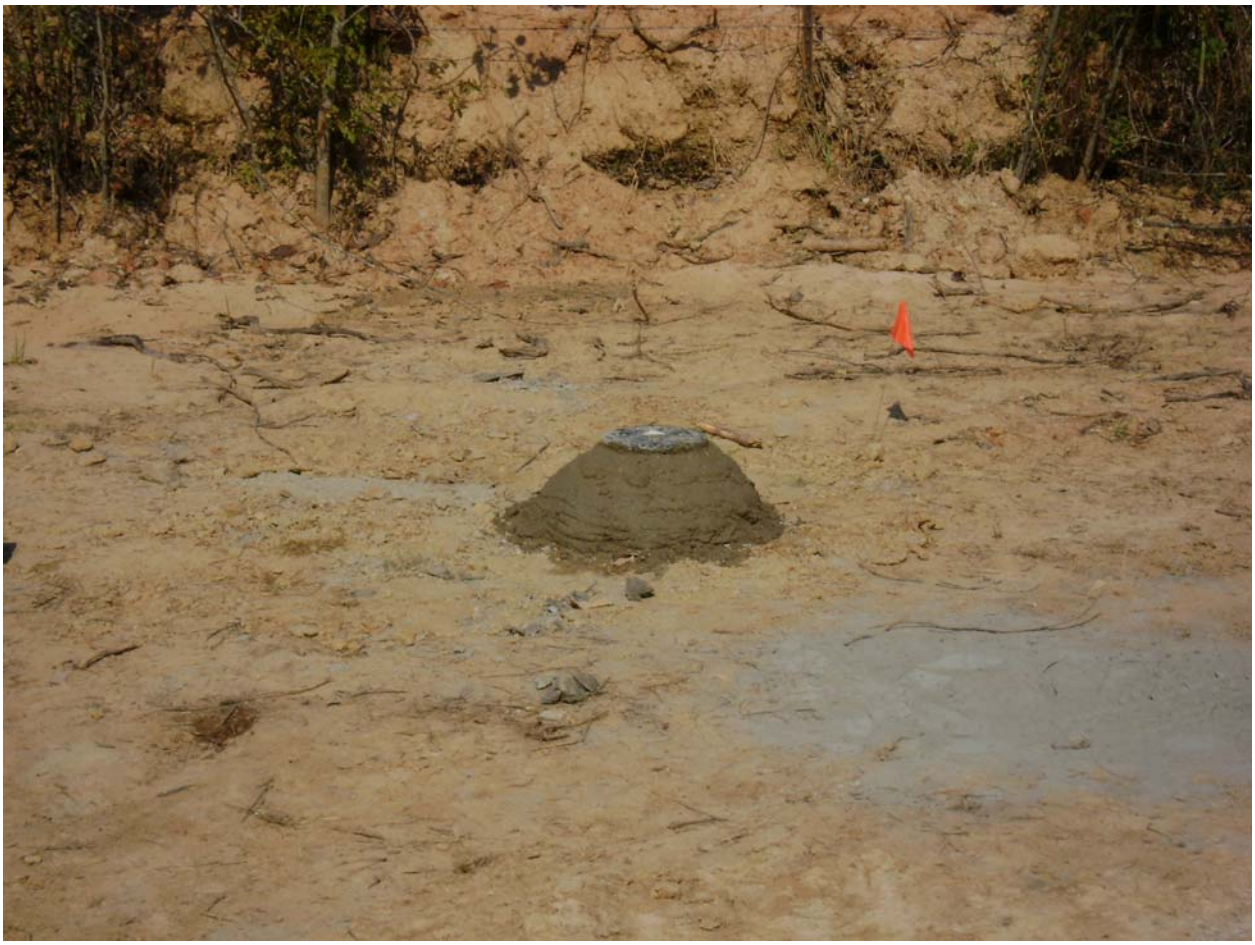

Monitoring well MW3, located on west side of landfill, after completion on September 1, 2009. Portland cement used to construct “temporary” barrier.

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ATTACHMENT 2 – CALIBRATION SHEET & FIELD EQUIPMENT CHECKLISTS

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FarrWest Environmental Supply, Inc.
PHOTO-IONIZATION DETECTOR

INSTRUMENT MODEL Lite SERIAL NUMBER 590-200558

COMPANY NAME Regulatory Compliance + Guidance CONTACT PERSON Phyllis Primrose
PHONE NUMBER

RENTAL PERIOD FROM: 8-31-09 TO:

RETURN SHIP DECLARED VALUE: $ SHIPPING WEIGHT:

PID

- ☑ CARRYING CASE
- ☑ 10.6 eV LAMP
- ☐ 11.7 eV LAMP
- ☐ BATTERY CHARGER
- ☑ BATTERY 3/4 VOLTS
- ☑ PROBE
- ☑ OPERATOR MANUAL
- ☑ HYDROPHOBIC FILTER
- ☑ Other spare alk. batt pack + extra batt.

GASES (if included)

- ☐ ~~ISOBUTYLENE~~ ppm PSI
- ☐ HEXANE ppm PSI
- ☐ REGULATOR
- ☐

INSTRUMENT INSPECTED BY: AC TODAY'S DATE: 8-26-09

CALIBRATION GAS: 100 ppm Isobutylene

INSTRUMENT READINGS:

FRESH AIR- 0.0 PPM

ISOBUTYLENE- 100.0 PPM

COMMENTS: good

FarrWest Environmental Supply, Inc. CHECKS EACH INSTRUMENT IN OUR SERVICE DEPARTMENT ACCORDING TO MANUFACTURERS SPECIFICATIONS. SHIPPING AND ENVIRONMENTAL CONDITIONS MAY AFFECT CALIBRATION; FarrWest Environmental Supply, Inc. RECOMMENDS THAT YOU CALIBRATE THE INSTRUMENT TO MANUFACTURES SPECIFICATIONS PRIOR TO USE.

PICKED UP BY : DATE: RETURNED BY: DATE:

Environmental Chemical Corporation	CONSTRUCTION EQUIPMENT INSPECTION CHECKLIST

PROJECT/TASK: Longhorn Army Ammunition Plant	**COMPANY:** Alamo 1
DATE: 8-31-09 **TIME:** 8:00	M T W Th F Sa Su (Circle One)
Type of Inspection: (Check One) ☒ Daily ☐ Incoming ☐ Outgoing	
Make/Description: [illegible]	**Model:** Ford **I.D. No:** 23F-412
Inspected By: (Name and Signature)	

EQUIPMENT	Acceptable	Not Acceptable	N/A	COMMENTS AND ACTION TAKEN
Brakes	X			
Brake Lights	X			
Reverse Signal Alarm	X			
Horn/Air Horn	X			
Tires/Tracks	X			
Steering	X			
Seat Belt	X			
Operating Controls	X			
Fire extinguisher	X			
Lights	X			
Defroster	X			
Mirrors	X			
Instruments	X			
Coupling Devices	X			
Bed/Cargo Area	X			
Tailgate and latch	X			
Tarp/covers	X			
Windshield Wipers	X			
Windshield/Window Glass	X			
Mudflaps/Rock guards	X			
Exhaust Systems	X			
Hitches and Safety Cables	X			
Hydraulic Lines/ Air Hoses	X			
Engine Oil Level	X			
Hydraulic Oil Level	X			
Rollover Equipment	X			
Cleanliness	X			

Comments: [illegible]	Fuel Level: ¼ ½ ¾ F Hour Meter: Odometer:

Noted deficiencies must be approved by the Superintendent and/or Health and Safety Officer prior to operation.

This inspection form is to be filled out at the start of the work shift upon deliveries by the Equipment/Truck Operator to ensure that the equipment/truck is safe to operate and is free from apparent damage, which could cause failure while in use. Once completed, this form is to be given to the Site Superintendent or Safety Officer to be kept on file on-site. In all cases, consult the manufacturer's data to ensure compliance with all inspection criteria, which may not be indicated.

Environmental Chemical Corporation	CONSTRUCTION EQUIPMENT INSPECTION CHECKLIST

PROJECT/TASK: Longhorn Army Ammunition Plant	COMPANY: Alamo 1
DATE: 9-1-09 TIME: 800	M (T) W Th F Sa Su (Circle One)
Type of Inspection: (Check One) ☒ Daily ☐ Incoming ☐ Outgoing	
Make/Description: F-550 Geoprobe Model:	I.D. No: 23F YK8
Inspected By: (Name and Signature)	

EQUIPMENT	Acceptable	Not Acceptable	N/A	COMMENTS AND ACTION TAKEN
Brakes	✓			
Brake Lights	✓			
Reverse Signal Alarm	✓			
Horn/Air Horn	✓			
Tires/Tracks	✓			
Steering	✓			
Seat Belt	✓			
Operating Controls	✓			
Fire extinguisher	✓			
Lights	✓			
Defroster				
Mirrors	✓			
Instruments	✓			
Coupling Devices	✓			
Bed/Cargo Area			✓	
Tailgate and latch	✓			
Tarp/covers			✓	
Windshield Wipers	✓			
Windshield/Window Glass	✓			
Mudflaps/Rock guards	✓			
Exhaust Systems	✓			
Hitches and Safety Cables	✓			
Hydraulic Lines/ Air Hoses	✓			
Engine Oil Level	✓			
Hydraulic Oil Level	✓			
Rollover Equipment			✓	
Cleanliness	✓			

Comments: HRS on Rig 171	Fuel Level: ¼ (½) ¾ F Hour Meter: Odometer: 6715

Noted deficiencies must be approved by the Superintendent and/or Health and Safety Officer prior to operation.

This inspection form is to be filled out at the start of the work shift upon deliveries by the Equipment/Truck Operator to ensure that the equipment/truck is safe to operate and is free from apparent damage, which could cause failure while in use. Once completed, this form is to be given to the Site Superintendent or Safety Officer to be kept on file on-site. In all cases, consult the manufacturer's data to ensure compliance with all inspection criteria, which may not be indicated.

Environmental Chemical Corporation	CONSTRUCTION EQUIPMENT INSPECTION CHECKLIST

PROJECT/TASK: Longhorn Army Ammunition Plant	COMPANY: Alamo 1
DATE: 9-2-09 TIME: 7:30 AM	M T (W) Th F Sa Su (Circle One)
Type of Inspection: (Check One) ☑ Daily ☐ Incoming ☐ Outgoing	
Make/Description: Ford	Model: F550 I.D. No: Geoprobe
Inspected By: (Name and Signature) Bobby Ragan	

EQUIPMENT	Acceptable	Not Acceptable	N/A	COMMENTS AND ACTION TAKEN
Brakes	✓			
Brake Lights	✓			
Reverse Signal Alarm	✓			
Horn/Air Horn	✓			
Tires/Tracks	✓			
Steering	✓			
Seat Belt	✓			
Operating Controls	✓			
Fire extinguisher	✓			
Lights	✓			
Defroster	✓			
Mirrors	✓			
Instruments	✓			
Coupling Devices	✓			
Bed/Cargo Area	✓			
Tailgate and latch	✓			
Tarp/covers	✓			
Windshield Wipers	✓			
Windshield/Window Glass	✓			
Mudflaps/Rock guards	✓			
Exhaust Systems	✓			
Hitches and Safety Cables	✓			
Hydraulic Lines/ Air Hoses	✓			
Engine Oil Level	✓			
Hydraulic Oil Level	✓			
Rollover Equipment	✓			
Cleanliness	✓			

Comments:	Fuel Level: ¼ ½ ¾ (F) Hour Meter: Odometer: 6715

Noted deficiencies must be approved by the Superintendent and/or Health and Safety Officer prior to operation.

This inspection form is to be filled out at the start of the work shift upon deliveries by the Equipment/Truck Operator to ensure that the equipment/truck is safe to operate and is free from apparent damage, which could cause failure while in use. Once completed, this form is to be given to the Site Superintendent or Safety Officer to be kept on file on-site. In all cases, consult the manufacturer's data to ensure compliance with all inspection criteria, which may not be indicated.

ATTACHMENT 3 – SHIPMENT CHECKLISTS & CHAIN OF CUSTODY FORMS

Geoscientific works or services discussed herein are preliminary (DRAFT) and released for interim review under the authority of Phyllis Primrose, P.G. #2586. Any other use of this information without written consent from Phyllis Primrose is prohibited.

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Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663
Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com

00120613

LELAP-accredited #02008

ANA-LAB CORP. THE COMPLETE SERVICE LAB

Chain of Custody

08/26/2009 Page 1 of 2

Report To:

Phyllis Primrose
RCG Texas
2101 Colston Drive
Tyler, TX 75703
5126949326

LHAAP19
Karnachi TX
LFCA

RCGT

101

Perchlorate SOIL TRRP

Lab Number _____

Phone 512/694-9326
Fax

Accredited	Test	Name	Method

Matrix: Soil

Sampler Printed Name Phyllis Primrose *Sampler Affiliation* RCG *Sampler Signature*

***Glass 4 oz w/Teflon lined lid**

AN	**!PeS**	Perchlorate (water extractable)	EPA 314.0
AN	**TS%**	Total Solids	SM 2540 G, 20th Ed.

Z1-Adminstrative use only: no bottle required

ARDW	As Received to Dry Weight Basis	Calculation

Ana-Lab #	Sample ID	Bottles	Date	Time	Notes
	B7 0-1 FT	1	8/31/09	1033	
	B7 14-15 FT	1	8/31/09	1038	
	B9 0-2 FT	1	8/31/09	1123	
	B9 14-15 FT	1	8/31/09	1154	
	B1 1-2 FT	1	8/31/09	1622	
	B1 13-14	1		1632	
	B3 1-2	2		1659	MS/MSD
	B3 14-15	1		1708	
	B2 0.5-1.0	1	9/1/09	1236	
	B2 21-21.5	1	9/1/09	1215	
	B4 3-3.5	1	9/1/09	1023	
	B4 13-14	1	9/1/09	1053	

Ambient Conditions/Comments

Corporate Shipping: 2600 Dudley Rd. Kilgore, TX 75662

ACCREDITED

ISO-17025 # 0637-01

nelac

NELAP-accredited #T104704201-08-TX

MEMBER ACIL

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

00120614

Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com LELAP-accredited #02008

Chain of Custody

Report To

Phyllis Primrose
RCG Texas
2101 Colston Drive
Tyler, TX 75703

RCGT

101

Lab Number

Phone 512/694-9326
Fax

Perchlorate SOIL TRRP

Accredited	Test	Name	Method

Date	Time	Relinquished	Received
9/1/09	1545	Printed Name Phyllis Primrose Affiliation RCG Signature	Printed Name [illegible] Affiliation ETL Signature
9/1/09	1723	Printed Name [illegible] Affiliation ETL Signature	Printed Name Gayle Gardner Affiliation Ana-Lab Signature Gayle Gardner
		Printed Name Affiliation Signature	Printed Name Affiliation Signature
		Printed Name Affiliation Signature	Printed Name Affiliation Signature

Sample Recieved on Ice? ☑ *Yes* ☐ *No* **Method of Shipment:** ☐ *UPS* ☐ *Bus* ☐ *FedEx* ☐ *Lone Star* ☑ *Hand Delivered* ☐ *Other*

Cooler/Sample Secure? ☑ *Yes* ☐ *No* **Tracking/Shipping #**

The accredited column designates accreditation by A - A2LA, N - NELAC, or z - not covered under A2LA or NELAC scope of accreditation.

Comments

003689 ☐
003233 ☑ <1°C
003532 ☐
003688 ☐

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663
Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com LELAP-accredited #02008

ANA-LAB CORP. THE COMPLETE SERVICE LAB

Chain of Custody

08/26/2009 Page 1 of 2

Report To

Phyllis Primrose
RCG Texas
2101 Colston Drive
Tyler, TX 75703

5126949326

RCGT

104

Lab Number LHAAP-19 Karnack TX

Phone 512/694-9326
Fax

LFCA

Accredited	Test	Name	Method
		Explosives Soil TRRP	

Matrix: Solid

Sampler Printed Name Phyllis Primrose *Sampler Affiliation* RCG *Sampler Signature*

*Glass 4 oz w/Teflon lined lid

AN !EXP Explosives Expansion Code SW-846 8330

Ana-Lab #	Sample ID	Bottles	Date	Time	Notes
	B7 0-1 FT	~~2~~ 1	8/31/09	1033	
	B7 14-15FT	1	8/31/09	1123	
	B9 - 0-2 FT	1	"	1154	
	B9 14-15	1	"	1154	
	B1 1-2FT	1	8/31/09	1622	
	B1 13-14	2	8/31/09	1632	MS/MSD
	B3 0-1	1	8/31/09	1655	
	B3 14-15	1	8/31/09	1708	
	B4 3-3.5	1	9/1/09	1023	
	B4 13-14	1	9/1/09	1053	
	B2 0.5-1.0	1	9/1/09	~~1215~~ 1236	
	B2 21-21.5	1	9/1/09	1215	

Ambient Conditions/Comments
Send Invoice to Alamo Environmental. Project Number AR09-195

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663
Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com

00120616

LELAP-accredited #02008

ANA-LAB CORP. THE COMPLETE SERVICE LAB

Chain of Custody

08/26/2009

Report To:

Phyllis Primrose
RCG Texas
2101 Colston Drive
Tyler, TX 75703

RCGT

104

Lab Number _____

Phone 512/694-9326
Fax

Explosives Soil TRRP

Accredited Test Name Method

Date	Time	Relinquished	Received
9/1/09	1545	Printed Name Phyllis Primrose Affiliation RCG Signature [signature]	Printed Name Jeff Tjaelka Affiliation ETTL Signature [signature]
9/1/09	1723	Printed Name Jeff Tjaelka Affiliation ETTL Signature [signature]	Printed Name Gayle Gardner Ana-Lab Affiliation Signature Gayle D Gardner
		Printed Name Affiliation Signature	Printed Name Affiliation Signature
		Printed Name Affiliation Signature	Printed Name Affiliation Signature

Sample Recieved on Ice? ☑ Yes ☐ No **Method of Shipment:** ☐ UPS ☐ Bus ☐ FedEx ☐ Lone Star ☑ ~~Hand~~ Delivered ☐ Other
Cooler/Sample Secure? ☑ Yes ☐ No **Tracking/Shipping #**

The accredited column designates accreditation by A - A2LA, N - NELAC, or z - not covered under A2LA or NELAC scope of accreditation.

Comments

003689 ☐
003233 ☑
003532 ☐ <1°C
003688 ☐

SAMPLE SHIPMENT CHECKLIST[1]

- Is the project clearly identified on the Chain-of-Custody (official project name, project location, project phase)? Yes
- Are the sample containers clearly labeled with waterproof (permanent) ink and enclosed in a plastic bag? Yes
- Are the desired analyses indicated on the bottle labels and chain-of-custody? Yes
- Are the sample labels complete, including the requested analysis? Yes
- Does the information on the Chain-of-Custody match the information on the sample container labels? Yes
- Is the Chain-of-Custody placed in a plastic bag and attached to the inside of the cooler lid? Yes
- Have the samples been properly preserved (acid or base and cooling to 4°C ± 2 °C)? Yes
- Is there a point of contact including name and phone number clearly shown on the Chain-of-Custody? Yes
- Is there sufficient ice or "blue ice" in the cooler? Yes

This is a partial list of the requirements for proper documentation and shipping of the environmental samples. Please refer to the Sampling and Analysis Plan for further details.

Date of Shipment: 9-1-09

Recipient's Name: [signature] ETIL

[1] Modified from USACE. 2001. Requirements for the Preparation of Sampling and Analysis Plans, EM 200-1-3, 1 February.

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ANA-LAB CORP.
THE COMPLETE SERVICE LAB
2600 Dudley Rd.
PO Box 9000
Kilgore, TX 75662
903.984.0551
(fx) 903.984.5914
e-mail: corp@ana-lab.com

Chain of Custody

Panhandle	Oklahoma	North TX	Central TX
806.355.3556	405.292.6630	817.261.6404	512.821.0045
Rio Grand Valley	**Louisiana**	**Gulf Coast**	**Alabama**
956.831.6437	318.219.9300	281.333.9414	256.651.7264

Report to: Phyllis Primrose
Project-name/location: LHAAP19 Landfill Closure Assessment
Company name: RCG
Billing Address (if different): Alamo Environmental
Address: 2101 Colston Dr.
10843 Gulfdale SA, TX
City: Tyler State: TX Zip: 75703
City: State: Zip:
Phone: 8126949326 Fax:
Phone: 2104041220 Fax:
Sampler Signature: [signature] Printed Name: PHYLLIS PRIMROSE Affiliation: RCG PO Number: AR09195

Analysis Requested

Lab Number Do Not Use	Field Identification	Date	Time	Matrix	# of Containers	Notes	Perchlorate	EXPLOSIVES						
	B5 0.5-1	9/2/09	0800	SOIL	2	MS/MSD	X	X						
	B5 14-14.5	9/2/09	0815	SOIL	2		X	X						
	B6 1-1.5		1348				X	X						
	B6 14-14.5		1406				X	X						
	B8 2.75-3		1425				X	X						
	B8 13-14		1448				X	X						
	B10 1-2		1507				X	X						
	B10 11.5-12		1517				X	X						
	~~B8 8-8~~													
	B10 14-15		1524		3		X	X		HOLD				

Date	Time	Relinquished by: Printed Name	Signature	Affiliation	Received by: Printed Name	Signature	Affiliation
9/2/09	1533	Phyllis Primrose	[signature]	RCG	Jeff Tjaelker	[signature]	ETTL
9/2/09	1641	Jeff Tjaelker	[signature]	ETTL		Kathy Tawa	

☐ Wastewater ☐ Drinking Water ☑ SW846
Samples contain ☐ HF ☐ CN ☐ S= ☐ other##

Samples Received on Ice? ☑ Yes ☐ No Method of Shipment ☐ Bus ☐ FedEX ☐ Lone Star ☐ UPS ☑ Hand delivered ☐ Airborne ☐ other ##comments
Cooler/Sample Secure? ☑ Yes ☐ No Tracking or Shipping Number _____
Requested TAT ☐ Routine ☐ 3 day ☐ 2 Day ☐ 24 Hr. ☐ 2-8 Hour ☐ Samples contain HF CN

✓ L/OC

Ana-Lab personnel collect samples as specified by Ana-Lab SOP #000323.

Sample analysis will be provided according to Ana-Lab's Standard Terms and Conditions of Agreement, available upon request and at www.ana-lab.com. Any other terms proposed by Client are deemed material alterations and are rejected unless expressly agreed to in writing by Ana-Lab.

SAMPLE SHIPMENT CHECKLIST[1]

- Is the project clearly identified on the Chain-of-Custody (official project name, project location, project phase)? Yes
- Are the sample containers clearly labeled with waterproof (permanent) ink and enclosed in a plastic bag? Yes
- Are the desired analyses indicated on the bottle labels and chain-of-custody? Yes
- Are the sample labels complete, including the requested analysis? Yes
- Does the information on the Chain-of-Custody match the information on the sample container labels? Yes
- Is the Chain-of-Custody placed in a plastic bag and attached to the inside of the cooler lid? Yes
- Have the samples been properly preserved (acid or base and cooling to 4°C ± 2 °C)? Yes
- Is there a point of contact including name and phone number clearly shown on the Chain-of-Custody? Yes
- Is there sufficient ice or "blue ice" in the cooler? Yes

This is a partial list of the requirements for proper documentation and shipping of the environmental samples. Please refer to the Sampling and Analysis Plan for further details.

Date of Shipment: 9-2-09

Recipient's Name: [illegible] ETIL

[1] Modified from USACE. 2001. Requirements for the Preparation of Sampling and Analysis Plans, EM 200-1-3, 1 February.

1 of 2

CHAIN OF CUSTODY RECORD

COC #: 07425

ALAMO ANALYTICAL LABORATORIES LTD.
10526 Gulfdale
San Antonio, Texas 78216
(210) 340-8121 • (800) 572-6955
Fax: (210) 340-8123
www.alamoanalytical.com
admin@alamoanalytical.com

NELAP Certificate # T104704367-08-TX

MUST BE COMPLETED BY CLIENT

Alamo's Client: Alamo Environmental	Client's P.O. #: AR09-195
Project Manager: Greg Osuna	Phone #: (210) 404-1220
Address: 10843 Gulfdale	Fax #: SA, TX
Project Number:	Project Name: LHAAP19 LFCA
Project Location: LHAAP Karnack, TX	Sampler Signature:

Turnaround time: Standard (7) ☒ (in working days)
RUSH: 1☐ 2☐ 3-5☐ Days (additional charges)
TRRP 13 Report: Yes ☒ No ☐ (additional charges)
Analysis for Permit Compliance: Yes ☐ No ☒
DMR Form Required: Yes ☐ No ☐

LAB ID# (Do not use)	Sampling Date	Sampling Time	Composite	Grab	Matrix	FIELD ID #	FIELD DESCRIPTION	No. of Containers	VOCs	SVOCs	TAL Metals					REMARKS (Preservation, Size/Amount, Etc.)
909007-01	8/31/09	1033			SOIL	B7	0-1 FT	2								refer to
909007-02		1038				B7	14-15 FT	2								Work Plan
909007-03		1123				B9	0-2 FT	2								
909007-04		1154				B9	14-15 FT	2								
909007-05		1615				B1	0-1	3	X	X	X					MS/MSD VOCS
909007-06		1640				B1	14-15	2								
909007-07		1702				B3	2-3	2	X	X	X					
909007-08		1706				B3	12-13	2	X	X	X					
	9-2-9															

Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Phillis Primrose	9/1/09	1410	
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Relinquished by: (Signature / Print Name)	Date	Time	Received for Laboratory by: (Signature)
	9-2-9	0805	

Headspace	N/A	If Yes, Amt. Solid
Properly Sealed	Y	If No, Explain
Chilled ≤4° C	Y	If No, Temp. 3°C

Comments: refer to Work Plan for methods and CRQLs; + LORPs.

2 of 2

CHAIN OF CUSTODY RECORD

COC #: 07426

ALAMO ANALYTICAL LABORATORIES LTD.
10526 Gulfdale
San Antonio, Texas 78216
(210) 340-8121 • (800) 572-6955
Fax: (210) 340-8123
www.alamoanalytical.com
admin@alamoanalytical.com

NELAP Certificate # T104704367-08-TX

MUST BE COMPLETED BY CLIENT

Alamo's Client: Alamo Environmental	Client's P.O. #: AR09-195
Project Manager: Greg Osuna	Phone #: 210.404.1220
Address: 10843 Gulfdale	Fax #: SA, TX
Project Number:	Project Name: LHAAP19 VCA
Project Location: LHAAP Karnack, TX	Sampler Signature:

Turnaround time: Standard (7) ☒ (in working days)
RUSH: 1☐ 2☐ 3-5☐ Days (additional charges)
TRRP 13 Report: Yes ☒ No ☐ (additional charges)
Analysis for Permit Compliance: Yes ☐ No ☒
DMR Form Required: Yes ☐ No ☐

LAB ID# (Do not use)	Sampling Date	Sampling Time	Composite	Grab	Matrix	FIELD ID #	FIELD DESCRIPTION	No. of Containers	VOCs	SVOCs	TAL Metals				REMARKS (Preservation, Size/Amount, Etc.)
909007-09	9/1/09	1019			Soil	B4	2-2.5	2	X	X	X				2 oz VOCs
909007-10	↓	1046			↓	B4	14-14.5'	2		X	X				MS/MSD
909007-11	↓	1047			↓	B4	14.5-15	1	X						
909007-12	↓	1242			↓	B2	1-1.5	2	X	X	X				
909007-13	↓	1215			↓	B2	21-22.5	2	X	X	X				
909007-14	N/A	N/A			↓	TB	Trip Blank	1							(Hold)

Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Phyllis Primrose	9/1/09	14:00	
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Relinquished by: (Signature / Print Name)	Date 9-2-9	Time 0805	Received for Laboratory by: (Signature)

Headspace	N/A		If Yes, Amt. Solid
Properly Sealed	Y		If No, Explain
Chilled ≤4° C	Y		If No, Temp. 3°C

Comments: refer to Work Plan for required methods + LORPs.

Alamo Analytical Laboratories, LTD
(DBA Chemron)

10526 Gulfdale, San Antonio , Texas 78216-3601 (210) 340-8121
Alamo_labs@sbcglobal.net; www.alamoanalytical.com

Sample Log-In Checklist

DATE: 9 / 2 / 2009 **TIME:** 0805 **INITIALS:** D

CLIENT: Alamo 1 **PROJECT:** LHAAP19 LFCA **W.O#** 909007

1. Is a Chain of Custody present? Yes No
2. Is a Chain of Custody properly completed? Yes No
3. Are custody seals present? Yes No
   If yes, are they intact? Yes No
   Are they on: Sample ✓ ~~or on~~ And Shipping Container ✓
4. Are all samples tagged or labeled? Yes No
   If yes, do the labels match the Chain of Custody? Yes No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   If not, describe below. Yes No N/A
6. Are samples preserved properly? *If not*, describe below. Yes No
7. Are all samples within holding times on arrival? Yes No
   If not, describe below.

Other

8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: 3 °C
11. Delivery agent: Client ___ UPS ___ Fed-Ex ___ Lone Star ✓ Alamo P/U ___ Other ___
12. Sample disposal: Return to client ___ Alamo Analytical Disposal ✓

Comments: (Reference checklist item number from above, or for comments on resolution below):

TRRP
See COC for QA/QC instructions
(Solid)

Record of contacting client for resolution of sample discrepancies (first and retry contact)
Contacted How?

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

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ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale · San Antonio, Texas 78216-3601 · (210) 340-8121

11-Sep-09

Lab Order: 0909007
Client: Alamo 1
Project: LHAAp19-LFCA

SAMPLE RECEIPT REPORT

Alamo Lab ID	Client Sample ID	Collection Date	Date Received	Method
0909007-05A	B1 0-1	8/31/2009	9/2/2009	Cyanide Distillation - Soils
	B1 0-1	8/31/2009	9/2/2009	CYANIDE, TOTAL
	B1 0-1	8/31/2009	9/2/2009	MERCURY, TOTAL
	B1 0-1	8/31/2009	9/2/2009	METALS SAMPLE PREP, Total
	B1 0-1	8/31/2009	9/2/2009	PERCENT MOISTURE
	B1 0-1	8/31/2009	9/2/2009	Semi-volatile Organics by GC/MS
	B1 0-1	8/31/2009	9/2/2009	TARGET ANALYTE LIST METALS
	B1 0-1	8/31/2009	9/2/2009	Ultrasonic Extraction - BNA's
	B1 0-1	8/31/2009	9/2/2009	Volatile Organics by GC/MS
0909007-07A	B3 2-3	8/31/2009	9/2/2009	Cyanide Distillation - Soils
	B3 2-3	8/31/2009	9/2/2009	CYANIDE, TOTAL
	B3 2-3	8/31/2009	9/2/2009	MERCURY, TOTAL
	B3 2-3	8/31/2009	9/2/2009	METALS SAMPLE PREP, Total
	B3 2-3	8/31/2009	9/2/2009	PERCENT MOISTURE
	B3 2-3	8/31/2009	9/2/2009	Semi-volatile Organics by GC/MS
	B3 2-3	8/31/2009	9/2/2009	TARGET ANALYTE LIST METALS
	B3 2-3	8/31/2009	9/2/2009	Ultrasonic Extraction - BNA's
	B3 2-3	8/31/2009	9/2/2009	Volatile Organics by GC/MS
0909007-08A	B3 12-13	8/31/2009	9/2/2009	Cyanide Distillation - Soils
	B3 12-13	8/31/2009	9/2/2009	CYANIDE, TOTAL
	B3 12-13	8/31/2009	9/2/2009	MERCURY, TOTAL
	B3 12-13	8/31/2009	9/2/2009	METALS SAMPLE PREP, Total
	B3 12-13	8/31/2009	9/2/2009	PERCENT MOISTURE
	B3 12-13	8/31/2009	9/2/2009	Semi-volatile Organics by GC/MS
	B3 12-13	8/31/2009	9/2/2009	TARGET ANALYTE LIST METALS
	B3 12-13	8/31/2009	9/2/2009	Ultrasonic Extraction - BNA's
	B3 12-13	8/31/2009	9/2/2009	Volatile Organics by GC/MS
0909007-09A	B4 2-2.5	9/1/2009	9/2/2009	Cyanide Distillation - Soils
	B4 2-2.5	9/1/2009	9/2/2009	CYANIDE, TOTAL
	B4 2-2.5	9/1/2009	9/2/2009	MERCURY, TOTAL
	B4 2-2.5	9/1/2009	9/2/2009	METALS SAMPLE PREP, Total
	B4 2-2.5	9/1/2009	9/2/2009	PERCENT MOISTURE
	B4 2-2.5	9/1/2009	9/2/2009	Semi-volatile Organics by GC/MS
	B4 2-2.5	9/1/2009	9/2/2009	TARGET ANALYTE LIST METALS
	B4 2-2.5	9/1/2009	9/2/2009	Ultrasonic Extraction - BNA's
	B4 2-2.5	9/1/2009	9/2/2009	Volatile Organics by GC/MS
0909007-10A	B4 14-14.5	9/1/2009	9/2/2009	Cyanide Distillation - Soils
	B4 14-14.5	9/1/2009	9/2/2009	CYANIDE, TOTAL
	B4 14-14.5	9/1/2009	9/2/2009	MERCURY, TOTAL
	B4 14-14.5	9/1/2009	9/2/2009	METALS SAMPLE PREP, Total
	B4 14-14.5	9/1/2009	9/2/2009	PERCENT MOISTURE
	B4 14-14.5	9/1/2009	9/2/2009	Semi-volatile Organics by GC/MS
	B4 14-14.5	9/1/2009	9/2/2009	TARGET ANALYTE LIST METALS
	B4 14-14.5	9/1/2009	9/2/2009	Ultrasonic Extraction - BNA's
0909007-11A	B4 14.5-15	9/1/2009	9/2/2009	PERCENT MOISTURE
	B4 14.5-15	9/1/2009	9/2/2009	Volatile Organics by GC/MS
0909007-12A	B2 1-1.5	9/1/2009	9/2/2009	Cyanide Distillation - Soils
	B2 1-1.5	9/1/2009	9/2/2009	CYANIDE, TOTAL
	B2 1-1.5	9/1/2009	9/2/2009	MERCURY, TOTAL
	B2 1-1.5	9/1/2009	9/2/2009	METALS SAMPLE PREP, Total
	B2 1-1.5	9/1/2009	9/2/2009	PERCENT MOISTURE
	B2 1-1.5	9/1/2009	9/2/2009	Semi-volatile Organics by GC/MS
	B2 1-1.5	9/1/2009	9/2/2009	TARGET ANALYTE LIST METALS
	B2 1-1.5	9/1/2009	9/2/2009	Ultrasonic Extraction - BNA's
	B2 1-1.5	9/1/2009	9/2/2009	Volatile Organics by GC/MS

ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale · San Antonio, Texas 78216-3601 · (210) 340-8121

11-Sep-09

Lab Order: 0909007
Client: Alamo 1
Project: LHAAp19-LFCA

SAMPLE RECEIPT REPORT

Alamo Lab ID	Client Sample ID	Collection Date	Date Received	Method
0909007-13A	B2 21-22.5	9/1/2009	9/2/2009	Cyanide Distillation - Soils
	B2 21-22.5	9/1/2009	9/2/2009	CYANIDE, TOTAL
	B2 21-22.5	9/1/2009	9/2/2009	MERCURY, TOTAL
	B2 21-22.5	9/1/2009	9/2/2009	METALS SAMPLE PREP, Total
	B2 21-22.5	9/1/2009	9/2/2009	PERCENT MOISTURE
	B2 21-22.5	9/1/2009	9/2/2009	Semi-volatile Organics by GC/MS
	B2 21-22.5	9/1/2009	9/2/2009	TARGET ANALYTE LIST METALS
	B2 21-22.5	9/1/2009	9/2/2009	Ultrasonic Extraction - BNA's
	B2 21-22.5	9/1/2009	9/2/2009	Volatile Organics by GC/MS

Comments:TRRP, Refer work plan for methods and CRQLs&LORPs

Reddy Gosala

00120627

From: Phyllis Primrose [phyllis@rcgtex.com]
Sent: Tuesday, September 01, 2009 9:16 PM
To: Don Williams
Cc: Greg Osuna; Reddy Gosala
Subject: LHAAP-19: Shipment of soil samples

Don-

Soil samples collected at LHAAP-19 were shipped today from my hotel to your lab via Lone Star Overnight. The samples are suppose to be delivered tomorrow (Wednesday). I indicated on the chain of custody which samples are to be analyzed as the MS/MSD for a particular analyte. Due to concerns with sample volumes, one sample can not be analyzed as the MS/MSD for all target COCs (ie VOCs, SVOCs, and metals).

Please let me know IMMEDIATELY if there are any issues with the samples. If you can not reach me, contact Greg Osuna at 210.404.1220.

Thank you.

Phyllis
RCG
2101 Colston Drive
Tyler, TX 75703
512.694.9326
www.rcgtex.com
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909007 - 05 = VOC MS/MSD

909007 - 10 = SVOC + Metals MS/MSD

CHAIN OF CUSTODY RECORD

COC #: 07427

ALAMO ANALYTICAL LABORATORIES LTD.
10526 Gulfdale
San Antonio, Texas 78216
(210) 340-8121 • (800) 572-6955
Fax: (210) 340-8123
www.alamoanalytical.com
admin@alamoanalytical.com

NELAP Certificate # T104704367-08-TX

MUST BE COMPLETED BY CLIENT

Alamo Client: Alamo Environmental	Client's P.O. #: AR 09195
Project Manager: Greg Osuna	Phone #: 210.404.1220
Address: 10843 Gulfdale SA TX	Fax #:
Project Number:	Project Name: LHAAP 19 LFCA
Project Location: LHAAP 19 Karnack, TX	Sampler Signature:

Turnaround time: Standard (7) ☒ (in working days)
RUSH: 1☐ 2☐ 3-5☐ Days (additional charges)
TRRP 13 Report: Yes ☒ No ☐ (additional charges)
Analysis for Permit Compliance: Yes ☐ No ☒
DMR Form Required: Yes ☐ No ☐

LAB ID# (Do not use)	Sampling Date	Sampling Time	Composite	Grab	Matrix	FIELD ID #	FIELD DESCRIPTION	No. of Containers	VOCs	SVOCs	TAL Metals					REMARKS (Preservation, Size/Amount, Etc.)
909018-01	9/2/09	0800		X	SOIL	B5-1	1-1.5 ft	2	X	X	X					
909018-02		0815				B5-2	14.5-15	2	X	X	X					
909018-03		1348				B6-1	0.5-1	2	X	X	X					MS/MSD SVOCs metals
909018-04		1406				B6-2	14.5-15	2	X	X	X					
909018-05		1425				B8-1	1-1.5	2	X	X	X					
909018-06		1443				B8-2	14-15	2	X	X	X					~~MS/MSD VOCs~~
909018-07		1513				B10-1	2-3	2	X	X	X					
909018-08		1544				B10-2	13-14	2	X	X	X					
909018-09		1439				B8-3	8-8.5	1	X							MS/MSD
909018-10						TB	TRIP Blank	1	X	only if VOCs detected in samples						

Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Phyllis Primrose	9/3/09	1140	Gilbert Olivares
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
transport		to LAB	
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Relinquished by: (Signature / Print Name)	Date	Time	Received for Laboratory by: (Signature)
Gilbert Olivares	9/4/09	8:05	

Headspace	N/A		If Yes, Amt. Solid
Properly Sealed	Y		If No, Explain
Chilled ≤4° C	Y		If No, Temp. 1°C

Comments: refer to Work Plan for methods and LORPs.

SAMPLE SHIPMENT CHECKLIST[1]

- Is the project clearly identified on the Chain-of-Custody (official project name, project location, project phase)? YES
- Are the sample containers clearly labeled with waterproof (permanent) ink and enclosed in a plastic bag? YES
- Are the desired analyses indicated on the bottle labels and chain-of-custody? YES
- Are the sample labels complete, including the requested analysis? YES
- Does the information on the Chain-of-Custody match the information on the sample container labels? YES
- Is the Chain-of-Custody placed in a plastic bag and attached to the inside of the cooler lid? YES
- Have the samples been properly preserved (acid or base and cooling to 4°C ± 2 °C)? YES
- Is there a point of contact including name and phone number clearly shown on the Chain-of-Custody? YES
- Is there sufficient ice or "blue ice" in the cooler? YES

This is a partial list of the requirements for proper documentation and shipping of the environmental samples. Please refer to the Sampling and Analysis Plan for further details.

Date of Shipment: 9/03/09

Recipient's Name: Gilbert Olivares

[1] Modified from USACE. 2001. Requirements for the Preparation of Sampling and Analysis Plans, EM 200-1-3, 1 February.

00120630

Alamo Analytical Laboratories, LTD
(DBA Chemron)

10526 Gulfdale, San Antonio , Texas 78216-3601 (210) 340-8121
Alamo_labs@sbcglobal.net; www.alamoanalytical.com

Sample Log-In Checklist

DATE: 9 / 4 / 2009 **TIME:** 0805 **INITIALS:** D

CLIENT: Alamo 1 **PROJECT:** LHAAP19 LFCA **W.O#** 909018

1. Is a Chain of Custody present? Yes No
2. Is a Chain of Custody properly completed? Yes No
3. Are custody seals present? Yes No
   If yes, are they intact? Yes No
   Are they on: Sample ✓ ~~or on~~ And Shipping Container ✓
   9-4-9
4. Are all samples tagged or labeled? Yes No
   If yes, do the labels match the Chain of Custody? Yes No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   If not, describe below. Yes No N/A
6. Are samples preserved properly? *If not*, describe below. Yes No
7. Are all samples within holding times on arrival? Yes No
   If not, describe below.

Other

8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: 1°C
11. Delivery agent: Client ___ UPS ___ Fed-Ex ___ Lone Star ✓ Alamo P/U ___ Other _____
12. Sample disposal: Return to client _____ Alamo Analytical Disposal ✓

Comments: (Reference checklist item number from above, or for comments on resolution below):

TRRP

See Coc for QA/QC Instructions

Sold Expired
9-4-9

Record of contacting client for resolution of sample discrepancies (first and retry contact)
Contacted How?

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale · San Antonio, Texas 78216-3601 · (210) 340-8121

11-Sep-09

Lab Order: 0909018
Client: Alamo 1
Project: LHAAP19LFCA

SAMPLE RECEIPT REPORT

Alamo Lab ID	Client Sample ID	Collection Date	Date Received	Method
0909018-01A	B5-1	9/2/2009	9/4/2009	Cyanide Distillation - Soils
	B5-1	9/2/2009	9/4/2009	CYANIDE, TOTAL
	B5-1	9/2/2009	9/4/2009	MERCURY, TOTAL
	B5-1	9/2/2009	9/4/2009	METALS SAMPLE PREP, Total
	B5-1	9/2/2009	9/4/2009	PERCENT MOISTURE
	B5-1	9/2/2009	9/4/2009	Semi-volatile Organics by GC/MS
	B5-1	9/2/2009	9/4/2009	TARGET ANALYTE LIST METALS
	B5-1	9/2/2009	9/4/2009	Ultrasonic Extraction - BNA's
	B5-1	9/2/2009	9/4/2009	Volatile Organics by GC/MS
0909018-02A	B5-2	9/2/2009	9/4/2009	Cyanide Distillation - Soils
	B5-2	9/2/2009	9/4/2009	CYANIDE, TOTAL
	B5-2	9/2/2009	9/4/2009	MERCURY, TOTAL
	B5-2	9/2/2009	9/4/2009	METALS SAMPLE PREP, Total
	B5-2	9/2/2009	9/4/2009	PERCENT MOISTURE
	B5-2	9/2/2009	9/4/2009	Semi-volatile Organics by GC/MS
	B5-2	9/2/2009	9/4/2009	TARGET ANALYTE LIST METALS
	B5-2	9/2/2009	9/4/2009	Ultrasonic Extraction - BNA's
	B5-2	9/2/2009	9/4/2009	Volatile Organics by GC/MS
0909018-03A	B6-1	9/2/2009	9/4/2009	Cyanide Distillation - Soils
	B6-1	9/2/2009	9/4/2009	CYANIDE, TOTAL
	B6-1	9/2/2009	9/4/2009	MERCURY, TOTAL
	B6-1	9/2/2009	9/4/2009	METALS SAMPLE PREP, Total
	B6-1	9/2/2009	9/4/2009	PERCENT MOISTURE
	B6-1	9/2/2009	9/4/2009	Semi-volatile Organics by GC/MS
	B6-1	9/2/2009	9/4/2009	TARGET ANALYTE LIST METALS
	B6-1	9/2/2009	9/4/2009	Ultrasonic Extraction - BNA's
	B6-1	9/2/2009	9/4/2009	Volatile Organics by GC/MS
0909018-04A	B6-2	9/2/2009	9/4/2009	Cyanide Distillation - Soils
	B6-2	9/2/2009	9/4/2009	CYANIDE, TOTAL
	B6-2	9/2/2009	9/4/2009	MERCURY, TOTAL
	B6-2	9/2/2009	9/4/2009	METALS SAMPLE PREP, Total
	B6-2	9/2/2009	9/4/2009	PERCENT MOISTURE
	B6-2	9/2/2009	9/4/2009	Semi-volatile Organics by GC/MS
	B6-2	9/2/2009	9/4/2009	TARGET ANALYTE LIST METALS
	B6-2	9/2/2009	9/4/2009	Ultrasonic Extraction - BNA's
	B6-2	9/2/2009	9/4/2009	Volatile Organics by GC/MS
0909018-05A	B8-1	9/2/2009	9/4/2009	Cyanide Distillation - Soils
	B8-1	9/2/2009	9/4/2009	CYANIDE, TOTAL
	B8-1	9/2/2009	9/4/2009	MERCURY, TOTAL
	B8-1	9/2/2009	9/4/2009	METALS SAMPLE PREP, Total
	B8-1	9/2/2009	9/4/2009	PERCENT MOISTURE
	B8-1	9/2/2009	9/4/2009	Semi-volatile Organics by GC/MS
	B8-1	9/2/2009	9/4/2009	TARGET ANALYTE LIST METALS
	B8-1	9/2/2009	9/4/2009	Ultrasonic Extraction - BNA's
	B8-1	9/2/2009	9/4/2009	Volatile Organics by GC/MS
0909018-06A	B8-2	9/2/2009	9/4/2009	Cyanide Distillation - Soils
	B8-2	9/2/2009	9/4/2009	CYANIDE, TOTAL
	B8-2	9/2/2009	9/4/2009	MERCURY, TOTAL
	B8-2	9/2/2009	9/4/2009	METALS SAMPLE PREP, Total
	B8-2	9/2/2009	9/4/2009	PERCENT MOISTURE
	B8-2	9/2/2009	9/4/2009	Semi-volatile Organics by GC/MS
	B8-2	9/2/2009	9/4/2009	TARGET ANALYTE LIST METALS
	B8-2	9/2/2009	9/4/2009	Ultrasonic Extraction - BNA's
	B8-2	9/2/2009	9/4/2009	Volatile Organics by GC/MS
0909018-07A	B10-1	9/2/2009	9/4/2009	Cyanide Distillation - Soils
	B10-1	9/2/2009	9/4/2009	CYANIDE, TOTAL

ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale · San Antonio, Texas 78216-3601 · (210) 340-8121

11-Sep-09

Lab Order: 0909018
Client: Alamo 1
Project: LHAAP19LFCA

SAMPLE RECEIPT REPORT

Alamo Lab ID	Client Sample ID	Collection Date	Date Received	Method
0909018-07A	B10-1	9/2/2009	9/4/2009	MERCURY, TOTAL
	B10-1	9/2/2009	9/4/2009	METALS SAMPLE PREP, Total
	B10-1	9/2/2009	9/4/2009	PERCENT MOISTURE
	B10-1	9/2/2009	9/4/2009	Semi-volatile Organics by GC/MS
	B10-1	9/2/2009	9/4/2009	TARGET ANALYTE LIST METALS
	B10-1	9/2/2009	9/4/2009	Ultrasonic Extraction - BNA's
	B10-1	9/2/2009	9/4/2009	Volatile Organics by GC/MS
0909018-08A	B10-2	9/2/2009	9/4/2009	Cyanide Distillation - Soils
	B10-2	9/2/2009	9/4/2009	CYANIDE, TOTAL
	B10-2	9/2/2009	9/4/2009	MERCURY, TOTAL
	B10-2	9/2/2009	9/4/2009	METALS SAMPLE PREP, Total
	B10-2	9/2/2009	9/4/2009	PERCENT MOISTURE
	B10-2	9/2/2009	9/4/2009	Semi-volatile Organics by GC/MS
	B10-2	9/2/2009	9/4/2009	TARGET ANALYTE LIST METALS
	B10-2	9/2/2009	9/4/2009	Ultrasonic Extraction - BNA's
	B10-2	9/2/2009	9/4/2009	Volatile Organics by GC/MS
0909018-09A	B8-3		9/4/2009	PERCENT MOISTURE
	B8-3		9/4/2009	Volatile Organics by GC/MS
0909018-10A	TB	9/2/2009	9/4/2009	HOLD per Client Request

Comments:TRRP, Refer to work plan for methods and LORPs

Field Activity Report
Longhorn Army Ammunition Plant (LHAAP)
Karnack, TX

Activity Period – September 2 - 9, 2009

This Field Activity Report, prepared by Phyllis Primrose (Regulatory Compliance & Guidance), documents the field activities conducted at Longhorn Army Ammunition Plant (LHAAP) Site 19 (Site) on Thursday September 3 and Tuesday September 8 through Thursday September 10, 2009. The field activities were implemented following the Landfill Closure Assessment Work Plan, dated August 5, 2009 (hereafter referred to as the Work Plan). Photographs taken during the field activities are provided as Attachment 1.

Field activities were conducted by a Texas-licensed Professional Geoscientist (P.G.) Phyllis Primrose (License No. 2586). Layne Harrison (ECC Site Superintendent) was on-site each day and conducted random inspections.

Three monitoring wells (MW1 through MW3) were developed and purged. Groundwater samples were collected and submitted for laboratory analyses. Investigation derived wastes (IDWs) were placed in appropriate containers and stored on-site for disposal.

Field Equipment

Field equipment was rented from and calibrated, as needed, by FarrWest Environmental Supply (FarrWest). Calibration sheets are provided in Attachment 2. An organic vapor monitor (OVM) was delivered by courier to RCG's headquarters on Friday August 28, 2009. The OVM was calibrated with isobutylene gas by FarrWest prior to shipment. Each day the OVM was zeroed in ambient air by RCG.

A Horiba U-22 water quality meter with flow-through cell (FTC); Solinst™ 100-foot water level meter; and stainless steel pump with low flow controller were delivered to the Comfort Suites in Marshall, Texas on Wednesday September 2. The water quality meter was calibrated by FarrWest, in accordance with the manufacture's recommended procedures, using the automatic calibration method (Attachment 2). During auto calibration mode, the pH and conductivity meters were calibrated with pH4 standard solution. The dissolved oxygen (DO) sensor was calibrated in the atmosphere.

RCG shipped the rented equipment to FarrWest via Lone Star Overnight on September 10, 2009.

Monitor Well Development, Purging, and Sampling

RCG attempted to initiate well development activities on September 3, 2009. The depth to water was measured from the top of casing in each well. The field activities were discontinued with concurrence

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from ECC (Layne Harrison) due to a severe thunderstorm and rescheduled for Tuesday September 8, 2009 following the Labor Day holiday.

By Tuesday September 8, 2009, the seal on each well had sufficient time to dry and cure. A sheet of plastic (see photographs in Attachment 1) was placed on the ground surface surrounding the monitor well during well development, purging, and sampling activities to prevent cross-contamination of field equipment and the ground surface. The locking cap was removed and the well vapors were screened with the OVM. The depth to water was measured from the top of casing to the nearest 0.01 foot using the water level indicator. The OVM and the depths to water were recorded in the field log. Data from the field log was later transferred to Field Parameter Measurement forms. The completed Field Parameter Measurement forms are provided in Attachment 3.

Well Development

A stainless steel pump was connected to dedicated, poly tubing (3/8-inch x 1/2-inch). The pump, tubing, and water level indicator were lowered into the well. The Work Plan stated that the pump would be set in the middle of the screened interval. Adjustments to the pump depth were made in the field since the water column ranged from 2 to 6 feet vs. a screen length of 10 feet. The pump was initially set below the top of water and lowered, as needed, to stabilize the flow and drawdown. Water was evacuated from each well until the water was visibly clear and free of particulates. The volume of water removed from each well during development was recorded in the field notebook and transferred to a Field Water Quality Measurement Form (Attachment 3).

The water column in monitoring well MW1 was 2.5 feet. The water level dropped below the pump intake. The pump intake was lowered to approximately 1 foot above the bottom of the well. The water level, again, dropped below the pump intake. The pump was removed and the well was determined to be dry. The well remained dry for at least 2 hours. Therefore, development of this well was postponed until the following day. On September 9, 2009, the water level was at static level but the well went dry again. De-ionized water (1.89 liters) was used to surge the well twice. After approximately 1 hour and removing 37 liters of water, the water was visibly clear.

The highest water column (6 ft) was measured in monitoring well MW2. The water level in monitoring well MW2 also dropped below the initial pump intake during development. The pump intake was lowered to within 2 feet of the well bottom. Approximately 31 liters of water were removed from MW2 before the water was visibly clear.

There was a 2-foot water column in monitoring well MW3. The pump intake was set approximately 0.5 ft below the top of water and 1.5 ft above the base of the well. The water level dropped below the pump

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intake after removing 2.75 liters. The well was surged using the water evacuated from the well. The surging process was repeated; each time the same volume (approximately 2 liters) was removed. The well was allowed to recharge for 20 minutes and produced an additional 2 liters. The yield from monitoring well MW3 was not sufficient to maintain a steady flow. Eight (8) liters of water were removed from MW3.

Purging and Sampling

Groundwater samples were collected using low-flow sampling techniques. Guidance prepared by the United States Environmental Protection Agency (EPA)[1] for low-flow sampling was generally followed. A copy of the EPA 1996 guidance was provided as Appendix 4 of the Work Plan.

After development, a transparent flow-through cell (FTC) was connected to the dedicated tubing. The pumping rate was manually increased using a low flow controller until water began exiting the tubing. The flow rate was measured using a graduated, glass cylinder (see Photographs in Attachment 1). The following field parameters were measured using a Horiba™ U-22: pH, temperature, specific conductivity, oxygen redox potential (ORP), dissolved oxygen, turbidity, and total dissolved solids (TDS). The depth to water was measured with a water level meter. Field parameters were generally measured every 5 minutes and recorded in the field log. The data from the field log was transferred to Field Parameter Measurement form. Copies of the completed forms are provided in Attachment 3.

Purging was continued until the Horiba™ U-22 parameters stabilized. Once the parameters stabilized, the FTC was removed. If the final turbidity measurement was greater than 10 NTU, the groundwater samples to be analyzed for metals were filtered[2] in the field using an in-line 0.45 micron particulate filter[3]. The samples were collected in the following order: VOCs, S-VOCs, TAL metals, perchlorate and explosives.

Monitoring well MW2 was purged and sampled on September 8, 2009. The flow rate ranged from 375 to 660 ml / min and would fluctuate automatically without any adjustment to the low-flow controller. The maximum drawdown was 3 feet. Field parameters stabilized after purging for 75 minutes and removing 32 liters of water. Filtered (labeled MW2F) samples were collected for TAL metals, perchlorate, and explosives laboratory analysis.

Monitoring well MW3 was purged and sampled on September 9, 2009. The flow in this well would not stabilize. Since the flow started and stopped, the FTC could not be used and field parameters could not be measured. Four well volumes were removed from the well prior to sampling. The water was not free

[1] EPA. 1996. Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells. SOP No. 001. Revision No. 2. Region 1. July 30.
[2] Filtered samples were not collected from monitoring well MW1. Please refer to the purging details for each monitoring well.
[3] EPA. 2007. Low-Flow Purging and Sampling of Groundwater Monitoring Wells. Bulletin No. QAD023. October 15.

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of particulates. Therefore, filtered (labeled MW3F) and unfiltered samples were collected for each laboratory analysis.

Monitoring well MW1 was the last monitoring well purged on September 9, 2009. The flow rate stabilized between 350 and 400 ml / min with a drawdown of approximately 2 feet. Field parameters stabilized after approximately 60 minutes. Approximately 28 liters of water were removed from MW1 during purging activities. Even though the turbidity was greater than 10 NTU, only unfiltered samples were collected from MW1. There were not enough pre-preserved containers for metal analyses due to unexpected, multiple equipment blanks.

Packaging and Shipping

The groundwater samples were placed in pre-cleaned, pre-preserved containers provided by the laboratory. A label was completed for each sample container using quick drying, smear-free ink. The completed label was secured to the sample container with clear tape. A custody seal was secured to the lid and the container. Each container was placed in a sealable (Ziploc™-type) bag which was also labeled with the sampling location. The bagged containers were stored on ice in a non- Styrofoam™ cooler provided by the laboratory. The inside of each cooler was lined with a plastic bag to prevent and control leakage. A trip blank and temperature blank was placed in each cooler.

A chain of custody form was completed, placed in a plastic bag, and taped to the inside of the associated cooler. Copies of the completed chain of custody forms are provided in Attachment 4. Each cooler was sealed closed with string tape (for strength) and custody seals were placed on the lid (see photograph in Attachment 1). The samples were stored on ice until delivered to the laboratory. Prior to shipment, the samples were re-packed on fresh ice. Samples to be analyzed for VOCs, S-VOCs, and TAL metals were shipped to Alamo Analytical in San Antonio, TX via Lone Star Overnight on September 10, 2009. Copies of the completed, shipping forms (No. P2385990 and P2385987) are provided in Attachment 4. Samples to be analyzed for explosives and perchlorate were hand-delivered to Ana-Lab Corp in Kilgore, TX on September 9, 2009 by Phyllis Primrose.

Decontamination Procedures

RCG decontaminated the non-dedicated equipment (FTC, water level meter, and stainless steel pump) prior to and following each use (in between wells). The decontamination process consisted of a three-bucket system. The first bucket contained an appropriate mixture of Alconox™ (or equivalent) soap and potable water obtained from the water faucet located near ECC's field office (see photographs in Attachment 1). The second and third buckets contained potable water for rinsing. The equipment was final-rinsed with distilled water purchased from a local grocery store or de-ionized water provided by the laboratory.

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Equipment blanks, designated as “EQB”, were prepared each day that groundwater samples were collected. Each equipment blank was prepared by capturing the final rinse water. EQB1 was prepared on September 8, 2009 using distilled water prior to sampling monitoring well MW2. EQB2 was prepared using de-ionized water on September 9, 2009 prior to sampling monitoring MW3. The equipment blanks were packaged and shipped as described previously for the groundwater samples.

Investigation-Derived Waste (IDW)

Investigation-derived waste consisted of groundwater removed during well development and purging activities; a mixture of potable water and Alconox™ soap used to decontaminate non-dedicated field equipment; and disposable sampling equipment (filters and paper rags) and personal protective equipment (gloves, plastic sheeting). The liquid IDW was placed in new, metal 55-gallon containers provided by the drilling company (ETTL). The solid IDW (disposable equipment and PPE) was placed in an open-top, used metal 55-gallon container provided by Alamo1. Each container was sealed closed and labeled with the generating site (LHAAP-19); contents; and accumulation start date. The liquid IDW was stored adjacent to the point of generation (i.e. next to the respective monitoring well). The container of solid IDW was stored adjacent to monitoring well MW3. The containers were stored on wooden pallets to maintain the integrity of the containers. Three containers of liquid IDW and one container of solid IDW were left on-site for classification and disposal.

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ATTACHMENT 1 - PHOTOGRAPHS

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Photographer: Phyllis Primrose	Date: 09/08/2009	Time: 0812	View: East
Description: Drums of IDW stored on wooden pallet near monitoring well MW1.			

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Photographer: Phyllis Primrose	Date: 09/08/2009	Time: 0812	View: East
Description: Storm water has accumulated in low-lying area surrounding monitoring well. Riser constructed to prevent storm water from flooding well.			

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Photographer: Phyllis Primrose	Date: 09/08/2009	Time: 0822	View: East
Description: Plastic sheeting placed on ground to prevent cross-contamination of field equipment.			

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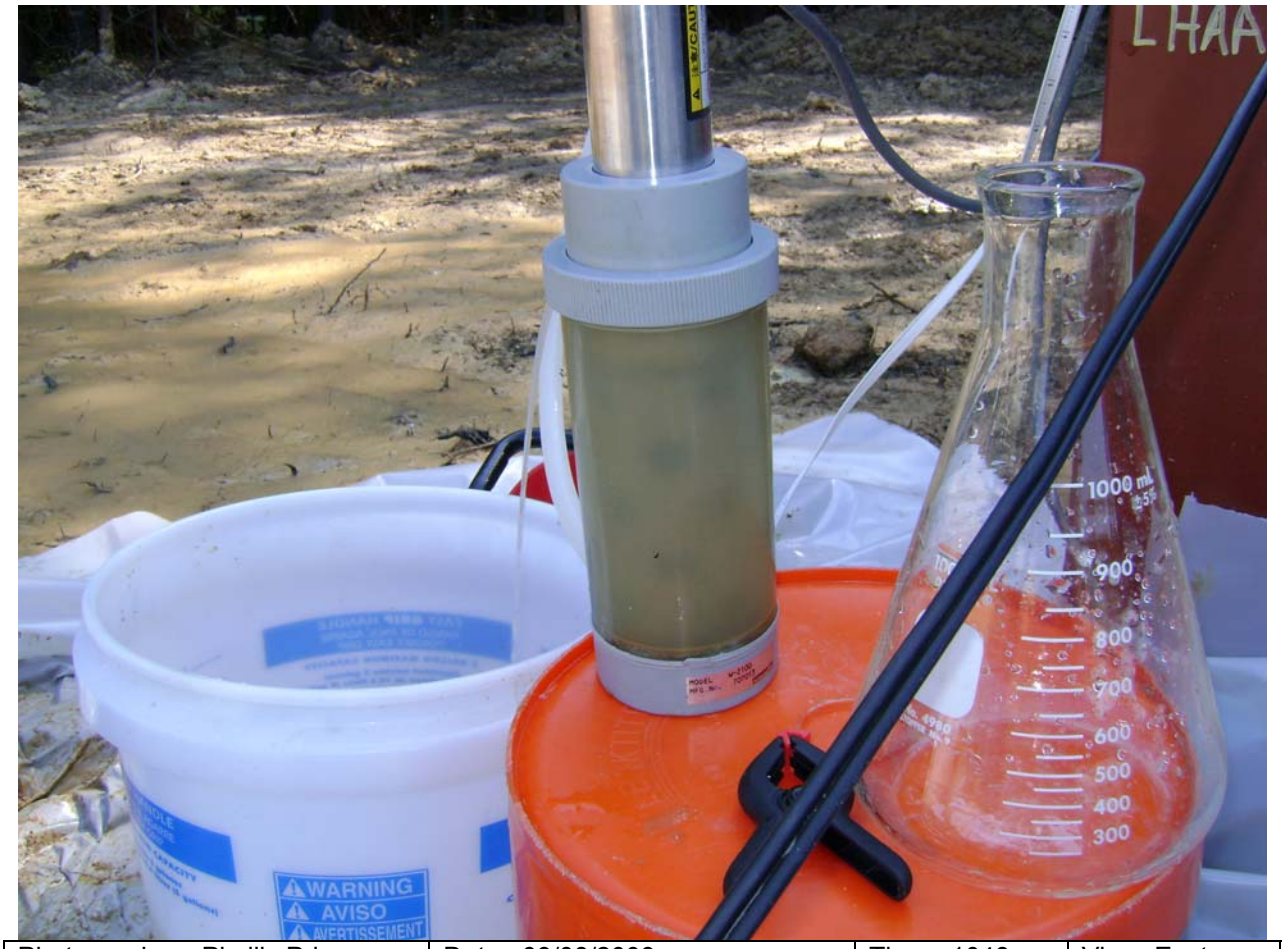

Photographer: Phyllis Primrose	Date: 09/08/2009	Time: 1048	View: East
Description: FTC added after 30 minutes of developing monitoring well MW1. Water remains very silty. Flow rate is approximately 200 ml/min but fluctuates (starts and stops) automatically.			

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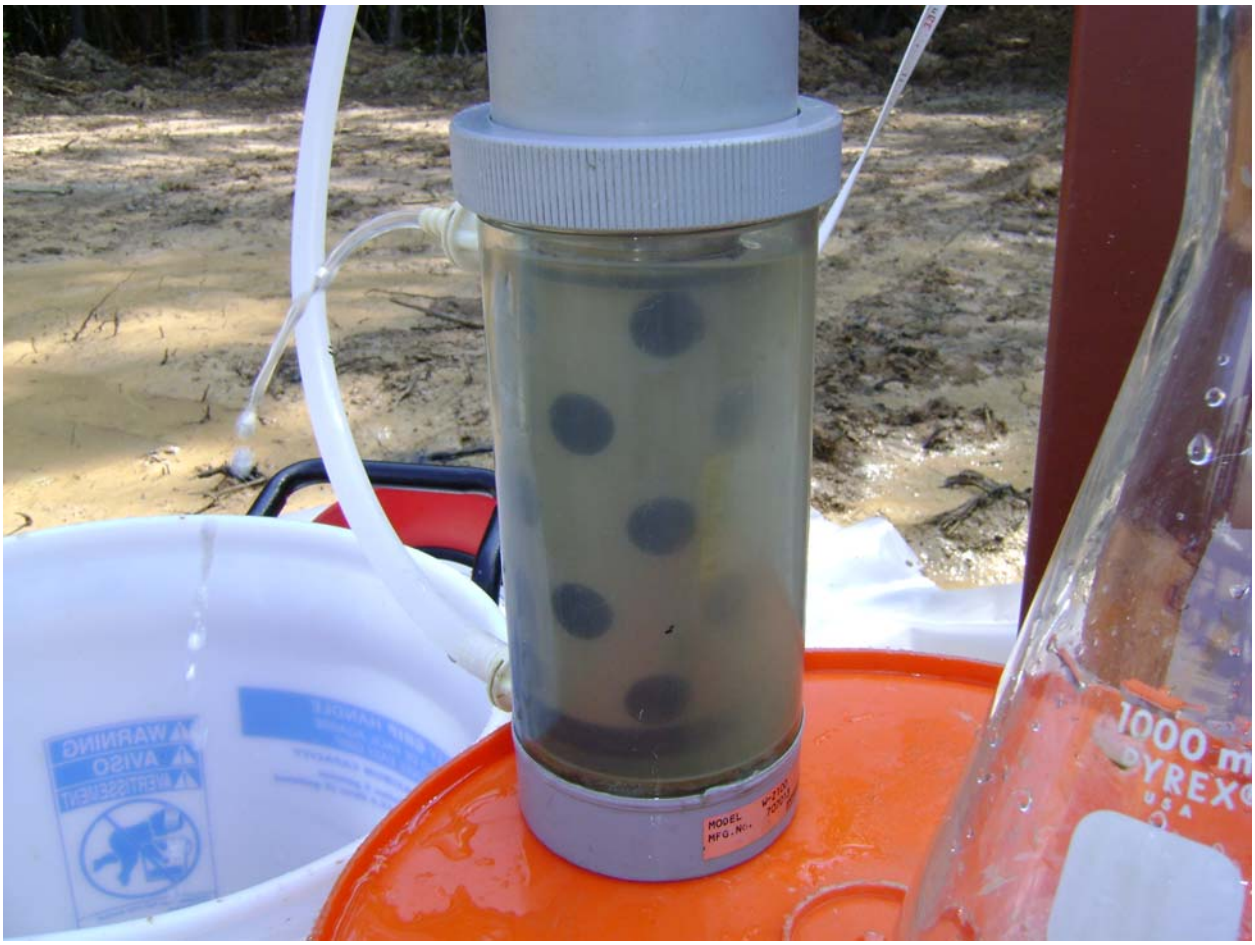

Photographer: Phyllis Primrose	Date: 09/08/2009	Time: 1112	View: East
Description: Visibility of water from MW1 approximately 50 minutes after initiating development activities. Flow rate fluctuates (starts and stops) automatically. Well was pumped dry at approximately 1125. The well was still dry at 1250.			

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Photographer: Phyllis Primrose	Date: 09/08/2009	Time: 1310	View: North
Description: Plastic sheeting placed on ground surface around monitoring well MW2 prior to initiating development activities. Drums of IDW (soil cuttings) are stored on wooden pallet. Funnel is used to pour purged and decon water into empty drum.			

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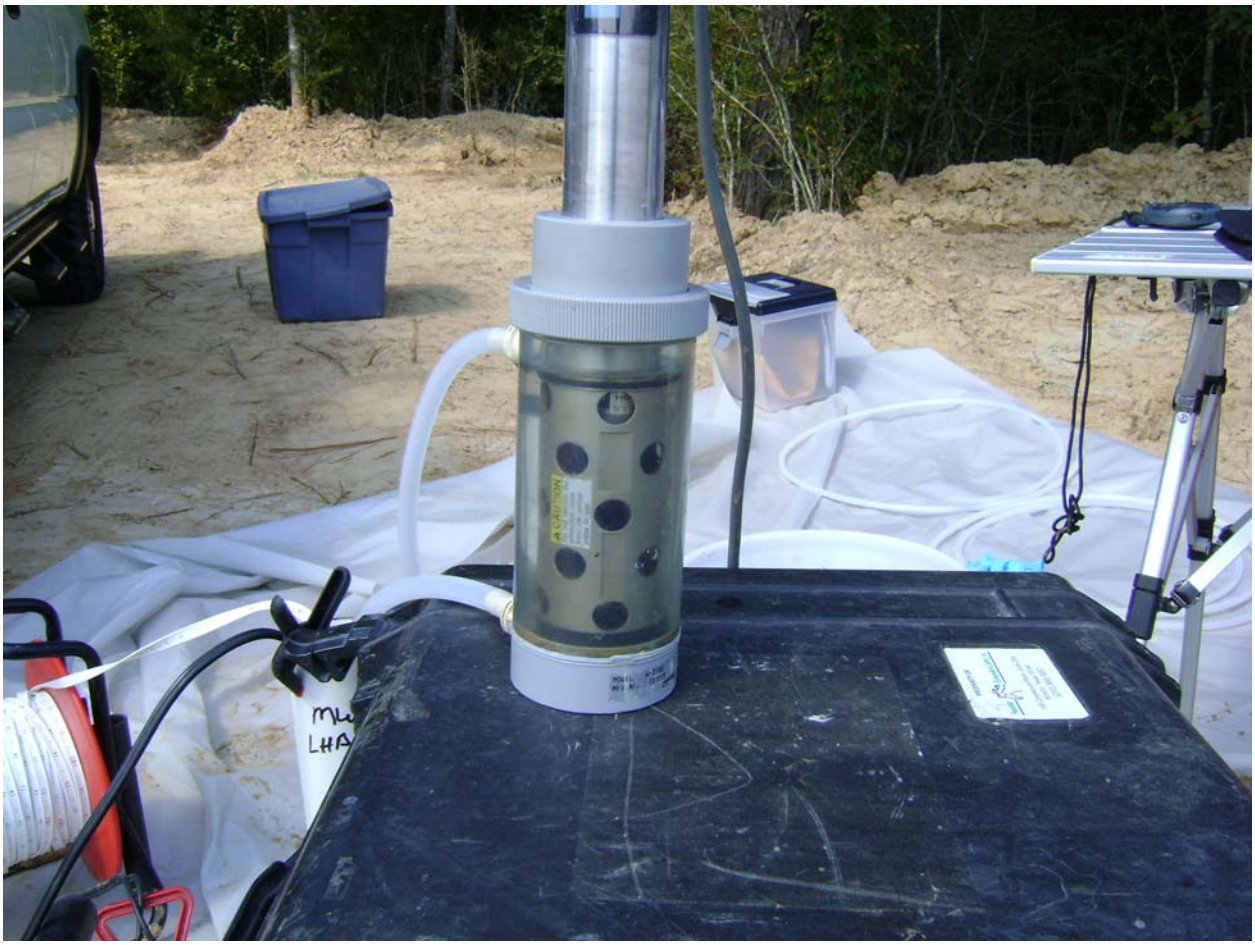

Photographer: Phyllis Primrose	Date: 09/08/2009	Time: 1510	View: North
Description: Visibility of water from MW2 approximately 90 minutes after initiating development activities. Flow rate is approximately 400 ml/min.			

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Photographer: Phyllis Primrose	Date: 09/08/2009	Time: 1510	View: North
Description: Visibility of water from MW2 approximately 90 minutes after initiating development activities. Flow rate is approximately 400 ml/min.			

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Photographer: Phyllis Primrose	Date: 09/09/2009	Time: 0905	View: West
Description: Location of potable water used for decontaminating field equipment. ECC field office shown in background.			

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Photographer: Phyllis Primrose	Date: 09/09/2009	Time: 0905	View: South
Description: Source of potable water used for decontaminating field equipment during well development and purging activities.			

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Photographer: Phyllis Primrose	Date: 09/09/2009	Time: 0931	View: East
Description: Plastic sheeting placed on ground surface around monitoring well MW3 prior to initiating development activities. Drums (3) of IDW are stored on wooden pallet. Funnel is used to pour purged and decon water into empty drum. Landfill (LHAAP-19) is shown in background.			

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Photographer: Phyllis Primrose	Date: 09/09/2009	Time: 1523	View: N/A
Description: Re-initiated well development activities at MW1 at 1520 on September 9, 2009. Pump was set at 31.96 ft below top of casing (~29.5 ft below ground surface). Six liters of water removed from monitoring well before water level dropped below pump.			

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Photographer: Phyllis Primrose	Date: 09/09/2009	Time: 1723	View: North
Description: Clarity of water from monitoring well MW1 prior to collecting samples.			

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ATTACHMENT 2 – FIELD EQUIPMENT CALIBRATION FORMS

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FarrWest Environmental Supply, Inc.
PHOTO-IONIZATION DETECTOR

INSTRUMENT MODEL Lite SERIAL NUMBER 590-000558

COMPANY NAME Regulatory Compliance + Guidance CONTACT PERSON Phyllis Primrose
PHONE NUMBER

RENTAL PERIOD FROM: 8-31-09 TO:

RETURN SHIP DECLARED VALUE: $ SHIPPING WEIGHT:

PID

- ☑ CARRYING CASE
- ☑ 10.6 eV LAMP
- ☐ 11.7 eV LAMP
- ☐ BATTERY CHARGER
- ☑ BATTERY 3/4 VOLTS
- ☑ PROBE
- ☑ OPERATOR MANUAL
- ☑ HYDROPHOBIC FILTER
- ☑ Other spare alk. batt pack + extra batt.

GASES (if included)

- ☐ ~~ISOBUTYLENE~~ ppm PSI
- ☐ HEXANE ppm PSI
- ☐ REGULATOR
- ☐

INSTRUMENT INSPECTED BY: AC TODAY'S DATE: 8-26-09

CALIBRATION GAS: 100 ppm Isobutylene

INSTRUMENT READINGS:

FRESH AIR- 0.0 PPM

ISOBUTYLENE- 100.0 PPM

COMMENTS: good

FarrWest Environmental Supply, Inc. CHECKS EACH INSTRUMENT IN OUR SERVICE DEPARTMENT ACCORDING TO MANUFACTURERS SPECIFICATIONS. SHIPPING AND ENVIRONMENTAL CONDITIONS MAY AFFECT CALIBRATION; FarrWest Environmental Supply, Inc. RECOMMENDS THAT YOU CALIBRATE THE INSTRUMENT TO MANUFACTURES SPECIFICATIONS PRIOR TO USE.

PICKED UP BY : DATE: RETURNED BY: DATE:

FarrWest Environmental Supply, Inc.
HORIBA U-22 WATER QUALITY CHECKER

INSTRUMENT MODEL U22 SERIAL NUMBER 7073009

COMPANY NAME Regulatory Compliance + Guidance CONTACT PERSON Phyllis Primrose
PHONE NUMBER

RENTAL PERIOD FROM: 9-4-09 TO:
RETURN SHIP DECLARED VALUE: $ SHIPPING WEIGHT:

HORIBA U-22 WATER QUALITY CHECKER

- ☑ READOUT
- ☑ PROBE
- ☑ INSTRUCTION MANUAL
- ☑ STND. SOLUTION (100-4)
- ☑ CALIBRATION BEAKER
- ☑ CARRYING CASE
- ☑ 9V BATTERY
- ☑ AAA BATTERY
- ☑ FLOW THRU CELL
- ☐

- Ph READING 4.02
- TEMP. READING 23.99
- COND. READING .447
- ☐ D.O. READING 8.9
- TURBIDITY READING 0.0
- ORP READING 304
- TDS READING 2.9

INSTRUMENT INSPECTED BY: [signature]
TODAY'S DATE: 8-31-09 CALIBRATION SOLUTION: AUTO CAL 100-4

COMMENTS: good

FarrWest Environmental Supply, Inc. CHECKS EACH INSTRUMENT IN OUR SERVICE DEPARTMENT ACCORDING TO MANUFACTURERS SPECIFICATIONS. SHIPPING AND ENVIRONMENTAL CONDITIONS MAY AFFECT CALIBRATION, FarrWest Environmental Supply, Inc. RECOMMENDS THAT YOU CALIBRATE THE INSTRUMENT TO MANUFACTURES SPECIFICATIONS PRIOR TO USE.

PICKED UP BY : DATE: RETURNED BY: DATE:

ATTACHMENT 3 – FIELD PARAMETER MEASUREMENT FORMS

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ATTACHMENT 3 - Field Parameters Measurement Form for Monitoring Well MW1

Location:	LHAAP-19 Karnack, TX	Sample Date:	9-Sep-09
Field Personnel:	PJP	Parameters:	VOCs, SVOCs, TAL Metals, perchlorate, explosives
Sampling Orangization	RCG	Purging Device:	stainless steel pump with low flow controller
Develop/Purge Date:	9/8/2009 & 9/9/2009	Tubing:	3/8" x 1/4" poly
Well ID	MW1	OVM:	1.0 ppm
Installation Date:	2-Sep-09	Identify MP:	Top of casing - north side
Original Total Depth:	30 ft bgs	Depth to Water:	30.5 below MP
Screened Interval:	20-30 ft bgs	Pump Intake:	30.7 below MP
Top of Casing (TOC)	2.42 ft ags	Total Depth:	32.96 below MP

TOC Elevation	194.65
GS Elevation	198.49

Time	Water Level	Pump Intake	Pump Dial	Purge Rate	Cummulative Purged Volume	Temperature	Conductivity	pH	Oxygen Redox Potential	Dissolved Oxygen	Turbidity	TDS	Comments	Drawdown
2400	ft	ft		ml/min	Liters	Celcius	S/m		m/V	mg/L	NTU	g/L	Units	Feet
	0.01					1	3%	0.1	15	0.2			Accuracy	
	<0.2			100-							5-10		Goal	0.3
						3%	3%	0.1	10 mv	10%	10%		Stabilization	
9/8/2009 8:45													Prepare equipment blank (EQB1) using distilled water purchased at grocery store.	
10:20	30.45	31.13											Set pump and start pumping.	0.05
	30.85		13.4	0										-0.35
			13.9											
10:36	30.7		13.4	350									flow stopped. Lowered pump.	-0.2
	31.5	31.93		200	6.5								flow starts and stops.	-1
10:50													Added FTC. Water is very silty. Let pump run.	
11:02	32			0	11								Water level dropped below pump.	-1.5
11:11	31.15												Start pump.	-0.65
11:25	32				16								Pump stopped. Lowered pump.	-1.5
11:41	33	32.4											Removed equipment from well. Deconed equipment. Placed IDW in 55-gallon drum.	-2.5
12:50													Move to MW2.	
9/9/2009 15:20		32.39											Start pump.	
15:28		32.39		0	4								Flow stopped.	
15:32				0	6								Flow stopped. Surged well with 1.89 L of deionized water from lab.	
15:40					9								Flow stopped. Surged well with 1.89 L of deionized water from lab.	
15:48					11.5								Flow starts and stops.	
15:54					14								Place filter on tubing to help regulate flow. Flow still stops and starts.	
16:10				450	21									
16:22													Removed filter. Added FTC.	
16:26			14	350	25	22.53	1.17	6.99	114	3.82	76	7		
16:35	31.96		13.4	350	28	23.58	9.99	6.91	94	1.49	37.7	99	Measure organic vapors in well with OVM (0 ppm).	-1.46
16:45						21.64	8.79	6.93	93	2.43	31.5	58		
16:50													Shut down pump and removed silt from FTC.	
16:55	31.96		14.6	500	34	20.86	0.817	6.94	99	4.19	21.2	5.2		-1.46
17:06	31.96		14.6	350	39	21.66	0.867	6.95	94	4.1	19.2	5.5		-1.46
17:16	31.96			350	42	21.62	0.862	6.95	96	3.94	19.6	5.4		-1.46
17:26	31.96		14.6	400		21.56	0.859	6.94	97	3.87	23.7	5.3		-1.46
17:36	31.96		14.6	400	49	21.46	0.853	6.96	99	3.78	25.7	5.4	Shut down pump and removed FTC.	-1.46
17:54													Collected unfiltered samples.	
18:30													Breakdown and decon equipment. Place IDW in 55-gallon container. Place PPE and disposable equipment in 55-gallon container near MW3.	

ATTACHMENT 3 - Field Parameters Measurement Form for Monitoring Well MW1

Location:	LHAAP-19 Karnack, TX	Sample Date:	9-Sep-09		
Field Personnel:	PJP	Parameters:	VOCs, SVOCs, TAL Metals, perchlorate, explosives		
Sampling Orangization	RCG	Purging Device:	stainless steel pump with low flow controller		
Develop/Purge Date:	9/8/2009 & 9/9/2009	Tubing:	3/8" x 1/4" poly		
Well ID	MW1	OVM:	1.0 ppm		
Installation Date:	2-Sep-09	Identify MP:	Top of casing - north side	TOC Elevation	194.65
Original Total Depth:	30 ft bgs	Depth to Water:	30.5 below MP	GS Elevation	198.49
Screened Interval:	20-30 ft bgs	Pump Intake:	30.7 below MP		
Top of Casing (TOC)	2.42 ft ags	Total Depth:	32.96 below MP		

Time	Water Level	Pump Intake	Pump Dial	Purge Rate	Cummulative Purged Volume	Temperature	Conductivity	pH	Oxygen Redox Potential	Dissolved Oxygen	Turbidity	TDS	Comments	Drawdown
2400	ft	ft		ml/min	Liters	Celcius	S/m		m/V	mg/L	NTU	g/L	Units	Feet
	0.01					1	3%	0.1	15	0.2			Accuracy	
	<0.2			100-							5-10		Goal	0.3
						3%	3%	0.1	10 mv	10%	10%		Stabilization	
				1st 3	Minimum	21.64	1.17	6.91	93	1.49	31.5	7		
					Maximum	23.58	9.99	6.99	114	3.82	76	99		
					RPD	8.58%	158.06%	0.08	21	87.76%	82.79%	173.58%		
				2nd 3	Minimum	20.86	0.817	6.91	93	1.49	21.2	5.2		
					Maximum	23.58	9.99	6.94	99	4.19	37.7	99		
					RPD	12.24%	169.76%	0.03	6	95.07%	56.03%	180.04%		
				3rd 3	Minimum	20.86	0.817	6.93	93	2.43	19.2	5.2		
					Maximum	21.66	8.79	6.95	99	4.19	31.5	58		
					RPD	3.76%	165.98%	0.02	6	53.17%	48.52%	167.09%		
				4th 3	Minimum	20.86	0.817	6.94	94	3.94	19.2	5.2		
					Maximum	21.66	0.867	6.95	99	4.19	21.2	5.5		
					RPD	3.76%	5.94%	0.01	5	6.15%	9.90%	5.61%		
				5th 3	Minimum	21.56	0.859	6.94	94	3.87	19.2	5.3		
					Maximum	21.66	0.867	6.95	97	4.1	23.7	5.5		
					RPD	0.46%	0.93%	0.01	3	5.77%	20.98%	3.70%		
				6th 3	Minimum	21.46	0.853	6.94	96	3.78	19.6	5.3		
					Maximum	21.62	0.862	6.96	99	3.94	25.7	5.4		
					RPD	0.74%	1.05%	0.02	3	4.15%	26.93%	1.87%		

ATTACHMENT 3 - Field Parameters Measurement Form for Monitoring Well MW2

Location:	LHAAP-19 Karnack, TX	Sample Date:	8-Sep-09		
Field Personnel:	PJP	Parameters:	VOCs, SVOCs, TAL Metals, perchlorate, explosives		
Sampling Orangization	RCG	Purging Device:	stainless steel pump with low flow controller		
Develop/Purge Date:	8-Sep-09	Tubing:	3/8" x 1/4" poly		
Well ID	MW2	OVM:	2.4 ppm		
Installation Date:	1-Sep-09	Identify MP:	North side top of casing.	TOC Elevation	194.7
Original Total Depth:	28 ft gbs	Depth to Water:	24.41 below MP	GS Elevation	193.09
Screened Interval:	18-28 ft bgs	Pump Intake:	26.25 below MP		
Top of Casing (TOC):	1.58 ft ags	Total Depth:	30.22 below MP		

Time	Water Level	Pump Intake	Pump Dial	Purge Rate	Cummulative Purged Volume	Temperature	Conductivity	pH	Oxygen Redox Potential	Dissolved Oxygen	Turbidity	TDS	Comments	Drawdown
2400	ft	ft		ml/min	Liters	Celcius	S/m		m/V	mg/L	NTU	g/L	Units	Feet
	0.01					1	3%	0.1	15	0.2			Accuracy	
	<0.2			100-							5-10		Goal	0.3
						3%	3%	0.1	10 mv	10%	10%		Stabilization	
13:20													Photograph well location.	
13:31	24.35	26.68												0.06
13:47		26.68											Start pump.	
		26.68	12.4	750									Reduce flow rate.	
13:53	29.47	26.68	12.2	0	4								Flow stopped.	-5.06
13:56	25.68	26.68		450	6									-1.27
14:02	26.25	26.68		550	10									-1.84
14:07	26.68	26.68		0									Flow stopped.	-2.27
14:08	26.25	26.68		300	11.75								Flow starts and stops due to dropping water level. Well recharges and flow starts.	-1.84
14:13	25.85	26.68		0	12									-1.44
14:17		26.68			14								Empty container (14L).	
14:19	25.6	26.68		0									Lowered pump to stabilize flow.	-1.19
14:25		29.24											Let pump run.	
14:30		29.24			28								Empty container (14L).	
14:32	29.24	29.24		660	31.5									-4.83
14:53	27.2	29.24		650		21.57	0.898	7.27	77	3.31	250	5.7	Emptied container (14L)	-2.79
15:06		29.24		500		22.54	0.864	7.34	67	3.95	35.9	5.5		
15:15	27.1	29.24	11.8	400	11	21.78	0.88	7.34	67	3.6	28.9	5.5	Took photograph.	-2.69
15:26	26.99	29.24	11.9	400	45.5	21.92	0.885	7.37	60	3.57	27.2	5.6	Emptied container (14L)	-2.58
15:35	26.92	29.24	11.6	375	50	21.85	0.872	7.36	60	3.17	24.5	5.5		-2.51
15:43	27.2	29.24	12.1	600	54.5	21.68	0.853	7.38	58	3.79	26.4	5.4		-2.79
15:50		29.24		0									Flow rate stopped.	
15:58	27.44	29.24	12.1	575	59.5	21.51	0.85	7.4	54	3.38	23.5	5.4		-3.03
16:07					63.5								Shut off pump and removed FTC.	
16:15													filter for metals, perchlorate, and	
17:13													TOC). Breakdown and decon	

ATTACHMENT 3 - Field Parameters Measurement Form for Monitoring Well MW2

Location:	LHAAP-19 Karnack, TX	Sample Date:	8-Sep-09		
Field Personnel:	PJP	Parameters:	VOCs, SVOCs, TAL Metals, perchlorate, explosives		
Sampling Orangization	RCG	Purging Device:	stainless steel pump with low flow controller		
Develop/Purge Date:	8-Sep-09	Tubing:	3/8" x 1/4" poly		
Well ID	MW2	OVM:	2.4 ppm		
Installation Date:	1-Sep-09	Identify MP:	North side top of casing.	TOC Elevation	194.7
Original Total Depth:	28 ft gbs	Depth to Water:	24.41 below MP	GS Elevation	193.09
Screened Interval:	18-28 ft bgs	Pump Intake:	26.25 below MP		
Top of Casing (TOC):	1.58 ft ags	Total Depth:	30.22 below MP		

Time	Water Level	Pump Intake	Pump Dial	Purge Rate	Cummulative Purged Volume	Temperature	Conductivity	pH	Oxygen Redox Potential	Dissolved Oxygen	Turbidity	TDS	Comments	Drawdown
2400	ft	ft		ml/min	Liters	Celcius	S/m		m/V	mg/L	NTU	g/L	Units	Feet
	0.01					1	3%	0.1	15	0.2			Accuracy	
	<0.2			100-							5-10		Goal	0.3
						3%	3%	0.1	10 mv	10%	10%		Stabilization	
				1st 3	Minimum	21.57	0.864	7.27	67	3.31	28.9	5.5		
					Maximum	22.54	0.898	7.34	77	3.95	250	5.7		
					RPD	4.40%	3.86%	0.07	10	17.63%	158.55%	3.57%		
				2nd 3	Minimum	21.78	0.864	7.34	60	3.57	27.2	5.5		
					Maximum	22.54	0.885	7.37	67	3.95	35.9	5.6		
					RPD	3.43%	2.40%	0.03	7	10.11%	27.58%	1.80%		
				3rd 3	Minimum	21.78	0.872	7.34	60	3.17	24.5	5.5		
					Maximum	21.92	0.885	7.37	67	3.6	28.9	5.6		
					RPD	0.64%	1.48%	0.03	7	12.70%	16.48%	1.80%		
				4th 3	Minimum	21.68	0.853	7.36	58	3.17	24.5	5.4		
					Maximum	21.92	0.885	7.38	60	3.79	27.2	5.6		
					RPD	1.10%	3.68%	0.02	2	17.82%	10.44%	3.64%		
				5th 3	Minimum	21.51	0.85	7.36	54	3.17	23.5	5.4		
					Maximum	21.85	0.872	7.4	60	3.79	26.4	5.5		
					RPD	1.57%	2.56%	0.04	6	17.82%	11.62%	1.83%		

ATTACHMENT 3 - Field Parameters Measurement Form for Monitoring Well MW3

Location: LHAAP-19 Karnack, TX
Field Personnel: PJP
Sampling Orangization RCG
Develop/Purge Date: 9-Sep-09
Well ID MW3
Installation Date: 31-Aug-09
Original Total Depth: 30 ft bgs
Screened Interval: 20-30 ft bgs
Top of Casing (TOC): 1.58 ft ags

Sample Date: 9-Sep-09
Parameters: VOCs, SVOCs, TAL Metals, perchlorate, explosives
Purging Device: stainless steel pump with low flow controller
Tubing: 3/8" x 1/4" poly
OVM: 0.2 ppm
Identify MP: North side top of casing.
Depth to Water: 28.84 below MP
Pump Intake: 29.83 below MP
Total Depth: 30.87 below MP

TOC Elevation: 200.5
Ground Surf Elev. 199.9

Time	Water Level	Pump Intake	Pump Dial	Purge Rate	Cummulative Purged Volume	Temperature	Conductivity	pH	Oxygen Redox Potential	Dissolved Oxygen	Turbidity	TDS	Comments	Drawdown
2400	ft	ft		ml/min	Liters	Celcius	S/m		m/V	mg/L	NTU	g/L	Units	Feet
	0.01					1	3%	0.1	15	0.2	5%		Accuracy	
	<0.2			100-400							5		Goal	0.3
						3%	3%	0.1	10 mv	10%	10%		Stabilization	
9:15													Setup on well. Take photographs. Zero OVM.	
9:47	28.84												Remove cap from well and measure organic vapors with OVM. Prepare equipment blank (EQB2) using deionized water from lab.	0.00
10:45													Collect EQB2.	
10:55	28.8	29.83											Started pump.	0.04
	29.84	29.83			2.75								Flow stopped. Surged well repeatedly with water removed from well by creating a vacuum on pump.	-1.00
11:00	28.82	29.83			5								Flow stopped.	0.02
11:05		29.83											Decon tape and went to check water level in MW1.	
11:25	29.84	29.83			7									-1.00
11:49	29.84	29.83			8									-1.00
11:59	29.2	29.83											Well pumps dry. Can not maintain flow. Have removed 4 well volumes.	-0.36
12:16	29.84	29.83											Start collecting unfiltered samples.	-1.00
13:00	29.62	29.83											Place 0.45-micron filter on tubing and start collecting filtered samples.	-0.78
13:30		29.83											Remove equipment from well. Decon equipment. Place decon water in 55-gallon drum.	

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ATTACHMENT 4 – SHIPPING & CHAIN OF CUSTODY FORMS

Geoscientific works or services discussed herein are preliminary (DRAFT) and released for interim review under the authority of Phyllis Primrose, P.G. #2586. Any other use of this information without written consent from Phyllis Primrose is prohibited.

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00120669

Phyllis 5126949326

ANA-LAB CORP. THE COMPLETE SERVICE LAB

2600 Dudley Rd.
PO Box 9000
Kilgore, TX 75662
903.984.0551
(fx) 903.984.5914
e-mail: corp@ana-lab.com

Chain of Custody

Panhandle	Oklahoma	North TX	Central TX
806.355.3556	405.292.6630	817.261.6404	512.821.0045
Rio Grand Valley	**Louisiana**	**Gulf Coast**	**Alabama**
956.831.6437	318.219.9300	281.333.9414	256.651.7264

Report to: Greg Osuna	Project-name/location LHAAP LFCA Karnack, TX
Company name: Alamo	Billing Address (if different)
Address: 10843 Gulfdale	
City: San Antonio State: TX Zip: 78216	City State Zip
Phone: 210 404 1220 Fax	Phone Fax AR09195
Sampler Signature: [signature] Printed Name: PHYLLIS PRIMROSE Affiliation: RCG	PO Number: ~~AR09195~~

Analysis Requested

Lab Number Do Not Use	Field Identification	Date	Time	Matrix	# of Containers	Notes	Perchlorate	Explosives	VOCs					
	EQB1	9/8/09	0845	Water	4	Refer to Workplan	X	X						
	Trip Blank	"	NA		1	for LORPs			X					
	MW2	"	1640	Water	2	unfiltered	X	X						
	MW2F	"	1645	water	2	filtered	X	X	— call Phyllis/hold					
	EQB2	9/9/05	1045	water	2		X	X						
	MW3	9/9/05	1245	Water	2		X	X						
	MW3F	9/9/05	1320	Water	2	filtered	X	X	— call Phyllis/hold					
	MW1	9/9/05	1815	water	4	unfiltered	X	X						

Date	Time	Relinquished by: Printed Name	Signature	Affiliation	Received by: Printed Name	Signature	Affiliation
9/9/5	2030	Phyllis Primrose	[signature]	RCG	Antonio Torres	[signature]	Ana-Lab

☐ Wastewater ☐ Drinking Water ☐ SW846
Samples contain ☐ HF ☐ CN ☐ S= ☐ other##

Samples Received on Ice? ☐ Yes ☐ No Method of Shipment ☐ Bus ☐ FedEX ☐ Lone Star ☐ UPS ☐ Hand delivered ☐ Airborne ☐ other **##comments**
Cooler/Sample Secure? ☐ Yes ☐ No Tracking or Shipping Number _____
Requested TAT ☐ Routine ☐ 3 day ☐ 2 Day ☐ 24 Hr. ☐ 2-8 Hour ☐ Samples contain HF CN

Ana-Lab personnel collect samples as specified by Ana-Lab SOP #000323.

Sample analysis will be provided according to Ana-Lab's Standard Terms and Conditions of Agreement, available upon request and at www.ana-lab.com. Any other terms proposed by Client are deemed material alterations and are rejected unless expressly agreed to in writing by Ana-Lab.

CHAIN OF CUSTODY RECORD

COC #: 07429

ALAMO ANALYTICAL LABORATORIES LTD.
10526 Gulfdale
San Antonio, Texas 78216
(210) 340-8121 • (800) 572-6955
Fax: (210) 340-8123
www.alamoanalytical.com
admin@alamoanalytical.com

NELAP Certificate # T104704367-08-TX

MUST BE COMPLETED BY CLIENT

Alamo's Client: Alamo	Client's P.O.: AR09195
Project Manager: Greg Osuna	Phone #: 210 404 1220
Address: 10543 Gulfdale	Fax #:
Project Number: AR09195	Project Name: LHAAP 19 LFCA
Project Location: Karnack, TX	Sampler Signature:

Turnaround time: Standard (7) ☒ (in working days)
RUSH: 1☐ 2☐ 3-5☐ Days (additional charges)
TRRP 13 Report: Yes ☒ No ☐ (additional charges)
Analysis for Permit Compliance: Yes ☐ No ☒
DMR Form Required: Yes ☐ No ☐

LAB ID# (Do not use)	Sampling Date	Sampling Time	Composite	Grab	Matrix	FIELD ID #	FIELD DESCRIPTION	No. of Containers	VOCs	SVOCs	TAL Metals				REMARKS (Preservation, Size/Amount, Etc.)
	9/08/09	✓		X	Water	TB	Trip Blank	2	X						
	"	0845		X	water	EQB1	Equipment Blank	7 ~~8~~	X	X	X				A.P. changed No. of Containers
	"	1640		X	water	MW2	MW2-unfiltered	7	X	X	X				
	"	1645		X	Water	MW2F	MW2-filtered	1			X				*Call Phyllis
	9/9/09	1045		X	Water	EQB2	Equipment Blank	4	X	X	X				
		1216			water	MW3	MW3 unfiltered	4	X	X	X				
	"	1300			"	MW3F	MW3 filtered	4	X	X	X				— call Phyllis
	9/9/09	1754			Water	MW1	MW1 unfiltered	7	X	X	X				

Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
B. P. Phyllis Primrose	9/10/09	1216	
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Relinquished by: (Signature / Print Name)	Date	Time	Received for Laboratory by: (Signature)

Headspace			If Yes, Amt.
Properly Sealed			If No, Explain
Chilled ≤4° C			If No, Temp.

Comments: refer to Work Plan for CRQLs + other LORPs

Phyllis 512 694 9326

00120671

Lone Overnight

WWW.LSO.COM
Questions? Call 800-800-8984

Airbill No. P2385990

Print Name (Person): Don Williams Phone (Important): (210) 340-8121	Print Name (Person): Phyllis Primrose Phone (Important): 5126949326
Company Name: Alamo Analytical Laboratories	Company Name: RCG
Street Address (No P.O. Box Deliveries): 10526 Gulfdale	Street Address: 2101 Colston Drive
Suite / Floor:	Suite / Floor:
City: San Antonio State: TX Zip: 78216	City: TYLER State: TX Zip: 75703

Weight: | Declared Value:

Your Company's Billing Reference Information: LHAAP-19

Ship Date: (mm/dd/yy): 9 / 10 / 09

Bill To Account Number:

Bill To Credit Card - MC, VISA, AMEX, DISCOVER

Credit Card Number:

Expiration Date: (mm/yy) /

- [x] End of Next Business Day (Most Cities)
- [ ] By 3:00 pm Delivery (Extra Charge)
- [ ] **Saturday Delivery** By 1:00 pm (Extra Charge)
- [ ] Deliver Without Delivery Signature **(See Limits of Liability below)**

Release Signature

L ____ x W ____ x H ____

Courier Number: 1939

[ ] Check here if LSO Supplies are used

Pick-up Location: OC

Date: 9.10

Time: 1640

City Code:

LIMIT OF LIABILITY: We are not responsible for claims in excess of $100 for any reason unless you: 1) declare a greater value (not to exceed $25,000); 2) pay an additional fee; and 3) document your actual loss in a timely manner. We will not pay a claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. Maximum weight per package is 70 lbs. A package should not measure more than 72" in length and/or 130" of length plus girth. **Residential deliveries do not require signatures. Express, 10:30 am packaging provided by LSO is not intended for use on ground service. Delivery commitments may vary. Additional fees may apply. Money back guarantee does not apply for shipments over 60" in length. Oversize rates may apply.**

Lone Overnight

WWW.LSO.COM
Questions? Call 800-800-8984

Airbill No. P2385987

Print Name (Person): DON WILLIAMS Phone (Important): 210 340 8121	Print Name (Person): PHYLLIS PRIMROSE Phone (Important): 5126949326
Company Name: Alamo Analytical Laboratories	Company Name: RCG
Street Address (No P.O. Box Deliveries): 10526 Gulfdale	Street Address: 2101 COLSTON DR
Suite / Floor: ~~San~~	Suite / Floor:
City: SAN ANTONIO State: TX Zip: 78216	City: TYLER State: TX Zip: 75703

Weight: | Declared Value:

Your Company's Billing Reference Information: LHAAP-19

Ship Date: (mm/dd/yy): 9 / 10 / 09

Bill To Account Number:

Bill To Credit Card - MC, VISA, AMEX, DISCOVER

Credit Card Number:

Expiration Date: (mm/yy) /

- [x] End of Next Business Day (Most Cities)
- [ ] By 3:00 pm Delivery (Extra Charge)
- [ ] **Saturday Delivery** By 1:00 pm (Extra Charge)
- [ ] Deliver Without Delivery Signature **(See Limits of Liability below)**

Release Signature

L ____ x W ____ x H ____

Courier Number: 1939

[ ] Check here if LSO Supplies are used.

Pick-up Location: OC

Date: 9.10

Time: 1640

City Code:

LIMIT OF LIABILITY: We are not responsible for claims in excess of $100 for any reason unless you: 1) declare a greater value (not to exceed $25,000), 2) pay an additional fee, and 3) document your actual loss in a timely manner. We will not pay a claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. Maximum weight per package is 70 lbs. A package should not measure more than 72" in length and/or 130" of length plus girth. **Residential deliveries do not require signatures. Express, 10:30 am packaging provided by LSO is not intended for use on ground service. Delivery commitments may vary. Additional fees may apply. Money back guarantee does not apply for shipments over 60" in length. Oversize rates may apply.**

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APPENDIX 2

BOREHOLE LOGS AND WELL CONSTRUCTION DIAGRAMS

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FIELD BOREHOLE LOG

BOREHOLE NUMBER: **B1**

TOTAL DEPTH: **15'**

RCG

15632 SH110 South, Suite #4 Whitehouse, TX 75791

www.rcgtex.com ph: 512.694.9326

PROJECT NAME: **Landfill Closure Assessment**

PROJECT NUMBER: **AR09-195**

LOCATION: **LHAAP-19**
Karnack, TX

GEOLOGIST: **P. Primrose**

DRILLING CO: **ETTL**

DRILLING METHOD: **DPT**

INSTALLATION DATE: **8/31/09**

NORTHING: **6952023.13** EASTING: **3316435.29**

GROUND SURFACE ELEVATION: **195.02**

TOP OF CASING ELEVATION: **NA**

WELL DIAMETER (INCHES): **NA**

DEPTH	RECOVERY (%)	ORGANIC VAPOR	LEL	BLOW COUNTS	LAB SAMPLE	DESCRIPTION	LITHOLOGY	WELL COMPLETION
0.0						SILT (MH), brown (7.5YR5/4).		
-1.0	100	0			X	CLAY (CL), red (2.5YR4/6) and light gray (7.5YR7/1 - 6/1), dry, hard, high toughness, high plasticity, no dilatancy, does not react with HCl.		
-2.0								
-3.0								
-4.0								
-5.0	100					Silty CLAY (CL), reddish-yellow (7.5YR6/6 - 6/8), medium toughness, high plasticity, no dilatancy.		
-6.0								
-7.0								
-8.0						- gray (7.5YR6/1) and reddish-yellow (7.5YR6/6) with black iron staining from 8 - 10', medium dry strength.		
-9.0		(0.1)						
-10.0	100	0						
-11.0								
-12.0						Clayey SILT (MH), gray (7.5YR6/1), medium toughness, low to medium dry strength.		
-13.0					X			
-14.0					X			
-15.0								

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FIELD BOREHOLE LOG

BOREHOLE NUMBER: **B2/MW2**

TOTAL DEPTH: **30'**

RCG

15632 SH110 South, Suite #4 Whitehouse, TX 75791

www.rcgtex.com *ph: 512.694.9326*

PROJECT NAME: **Landfill Closure Assessment**

PROJECT NUMBER: **AR09-195**

LOCATION: **LHAAP-19**
Karnack, TX

GEOLOGIST: **P. Primrose**

DRILLING CO: **ETTL**

DRILLING METHOD: **DPT and HSA**

INSTALLATION DATE: **9/1/09**

NORTHING: **6952053.21** EASTING: **3316633.97**

GROUND SURFACE ELEVATION: **193.09**

TOP OF CASING ELEVATION: **194.65**

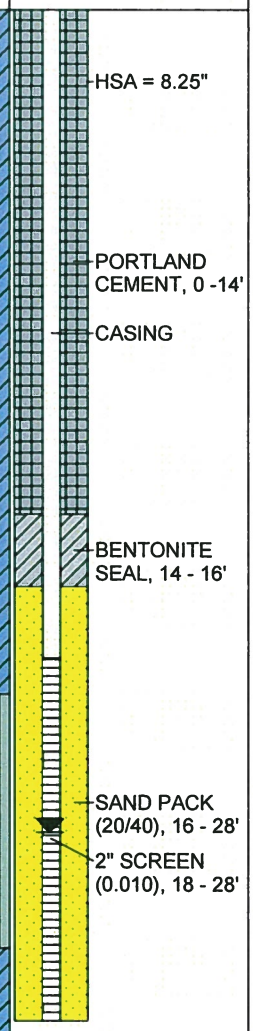
WELL DIAMETER (INCHES): **2-inch**

STATE OF TEXAS
PHYLLIS PRIMROSE
GEOLOGY
2586
LICENSED
PROFESSIONAL GEOLOGIST

DEPTH	RECOVERY (%)	ORGANIC VAPOR	LEL	BLOW COUNTS	LAB SAMPLE	DESCRIPTION
0.0 – -5.0	100	0				CLAY (CL), red (2.5YR4/6) and light gray (7.5YR7/1 - 6/1), dry, blocky, medium dry strength. - with roots from 2 - 3'.
-5.0 – -10.0	100	0				- reddish-yellow (7.5YR6/6 - 6/8) and gray (7.5YR6/1) with occasional black iron staining, hard consistency, medium to high toughness, medium to high plasticity, medium dry strength from 5 to 13'. - with iron at 8.5'.
-10.0 – -15.0	100	0				- light gray to gray (7.5YR7/1 - 6/1), hard, medium dry strength, no iron from 13 - 15'.
-15.0 – -20.0	100	0				- with reddish-yellow (7.5YR7/6) and black staining, medium dry strength from 15 - 18'. - very hard below 18'.
-20.0 – -25.0	100	0				Clayey SILT (MH), pinkish-gray (7.5YR7/2 - 6/2), dry, soft to firm, low to medium toughness, medium plasticity, low dry strength. -clay content decreases with depth. - wet below 25'.
-25.0 – -30.0	100	0				CLAY (CL), pinkish-gray (7.5YR7/2 - 6/2), dry, high dry strength.

LITHOLOGY

WELL COMPLETION



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FIELD BOREHOLE LOG

BOREHOLE NUMBER: **B3**

TOTAL DEPTH: **15'**

RCG

15632 SH110 South, Suite #4 Whitehouse, TX 75791

www.rcgtex.com ph: 512.694.9326

PROJECT NAME: Landfill Closure Assessment

PROJECT NUMBER: AR09-195

LOCATION: LHAAP-19

Karnack, TX

GEOLOGIST: P. Primrose

DRILLING CO: ETTL

DRILLING METHOD: DPT

INSTALLATION DATE: 8/31/09

NORTHING: 6952010.01 EASTING: 3316874.26

GROUND SURFACE ELEVATION: 198.97

TOP OF CASING ELEVATION: NA

WELL DIAMETER (INCHES): NA

STATE OF TEXAS
PHYLLIS PRIMROSE
GEOLOGY 6-27-10
2586
LICENSED
PROFESSIONAL GEOLOGIST

DEPTH	RECOVERY (%)	ORGANIC VAPOR	LEL	BLOW COUNTS	LAB SAMPLE	DESCRIPTION	LITHOLOGY	WELL COMPLETION
0.0						SILT (MH), brown (7.5YR4/3), dry.		
-1.0					X			
-2.0	100	0			X	CLAY (CL), mottled light gray to gray (7.5YR7/1 - 6/1) and red (2.5YR5/8), dry.		
-3.0								
-4.0								
-5.0						SILT (MH), gray (7.5YR6/1), dry, low toughness, medium plasticity, low to medium dry strength.		
-6.0								
-7.0	100	(0.2)						
-8.0								
-9.0								
-10.0								
-11.0								
-12.0	100	0			X			
-13.0								
-14.0					X	CLAY (CL), gray (7.5YR6/1), dry.		
-15.0								

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FIELD BOREHOLE LOG

BOREHOLE NUMBER: **B4**

TOTAL DEPTH: **15'**

RCG

15632 SH110 South, Suite #4 Whitehouse, TX 75791

www.rcgtex.com ph: 512.694.9326

PROJECT NAME: **Landfill Closure Assessment**

PROJECT NUMBER: **AR09-195**

LOCATION: **LHAAP-19**
Karnack, TX

GEOLOGIST: **P. Primrose**

DRILLING CO: **ETTL**

DRILLING METHOD: **DPT**

INSTALLATION DATE: **9/1/09**

NORTHING: **6951881.32** EASTING: **3316975.83**

GROUND SURFACE ELEVATION: **198.20**

TOP OF CASING ELEVATION: **NA**

WELL DIAMETER (INCHES): **NA**

STATE OF TEXAS
PHYLLIS PRIMROSE
GEOLOGY
2586
LICENSED
PROFESSIONAL GEOLOGIST

DEPTH	RECOVERY (%)	ORGANIC VAPOR	LEL	BLOW COUNTS	LAB SAMPLE	DESCRIPTION	LITHOLOGY	WELL COMPLETION
0.0						SILT (ML), brown (7.5YR5/4).		
-1.0								
-2.0	100	0			X	Silty CLAY (CL), mottled red (2.5YR5/8) and light gray to gray (7.5YR7/1 - 6/1), dry, hard, high toughness, high plasticity.		
-3.0					X			
-4.0								
-5.0	100	0				SILT (ML), reddish-yellow (7.5YR6/6) to strong brown (7.5YR5/6), moist, low toughness, low plasticity, medium dry strength.		
-6.0								
-7.0								
-8.0						SILT (MH), white to light gray (2.5YR8/1 - 7/1) and reddish-yellow (7.5YR7/6), dry, with iron staining (black stringers), low to medium toughness, medium plasticity.		
-9.0								
-10.0	100	0				Silty CLAY (CL), reddish-yellow (7.5YR6/8) and light gray (7.5YR7/1) with iron staining and black stringers, hard, medium dry strength.		
-11.0								
-12.0								
-13.0					X	- gray (7.5YR6/1) below 13'.		
-14.0					X			
-15.0					X			

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FIELD BOREHOLE LOG

BOREHOLE NUMBER: **B6**

TOTAL DEPTH: **15'**

RCG

15632 SH110 South, Suite #4 Whitehouse, TX 75791

www.rcgtex.com ph: 512.694.9326

PROJECT NAME: **Landfill Closure Assessment**

PROJECT NUMBER: **AR09-195**

LOCATION: **LHAAP-19**
Karnack, TX

GEOLOGIST: **P. Primrose**

DRILLING CO: **ETTL**

DRILLING METHOD: **DPT**

INSTALLATION DATE: **9/2/09**

NORTHING: **6951486.25** EASTING: **3316893.22**

GROUND SURFACE ELEVATION: **199.20**

TOP OF CASING ELEVATION: **NA**

WELL DIAMETER (INCHES): **NA**

STATE OF TEXAS
PHYLLIS PRIMROSE
GEOLOGY 6-29-10
2586
LICENSED
PROFESSIONAL GEOLOGIST

DEPTH	RECOVERY (%)	ORGANIC VAPOR	LEL	BLOW COUNTS	LAB SAMPLE	DESCRIPTION	LITHOLOGY	WELL COMPLETION
0.0						SILT (ML), brown (7.5YR5/4), dry.		
-1.0					X	CLAY (CL), brown (7.5YR5/2) mottled with red (2.5YR5/8), dry, hard, high toughness, high plasticity, very high dry strength.		
-2.0	100	0						
-3.0								
-4.0								
-5.0						SILT (ML), gray (7.5YR7/1) mottled with reddish yellow (7.5YR7/8), dry, soft, low toughness, non-plastic, low dry strength.		
-6.0								
-7.0	100	0						
-8.0								
-9.0								
-10.0						Silty CLAY (CL), white (7.5YR8/1) mottled occasionally with strong brown (7.5YR5/8), dry, with black iron staining, medium toughness, medium plasticity, medium dry strength.		
-11.0								
-12.0	100	0						
-13.0								
-14.0					X			
-15.0								

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FIELD BOREHOLE LOG

BOREHOLE NUMBER: **B7**

TOTAL DEPTH: **15'**

RCG

15632 SH110 South, Suite #4 Whitehouse, TX 75791

www.rcgtex.com ph: 512.694.9326

PROJECT NAME: **Landfill Closure Assessment**

PROJECT NUMBER: **AR09-195**

LOCATION: **LHAAP-19**
Karnack, TX

GEOLOGIST: **P. Primrose**

DRILLING CO: **ETTL**

DRILLING METHOD: **DPT**

INSTALLATION DATE: **8/31/09**

NORTHING: **6951339.68** EASTING: **3316661.86**

GROUND SURFACE ELEVATION: **200.08**

TOP OF CASING ELEVATION: **NA**

WELL DIAMETER (INCHES): **NA**

STATE OF TEXAS
PHYLLIS PRIMROSE
GEOLOGY
2586
LICENSED
PROFESSIONAL GEOLOGIST

DEPTH	RECOVERY (%)	ORGANIC VAPOR	LEL	BLOW COUNTS	LAB SAMPLE	DESCRIPTION	LITHOLOGY	WELL COMPLETION
0.0					X	SILT (ML), brown (7.5YR5/4), dry.		
-1.0						SILT (ML), brown (7.5YR4/3), blocky.		
-2.0	100	0						
-3.0						CLAY (CL), light gray to gray (7.5YR7/1 - 6/1) with red (2.5YR5/8) mottling, dry, very hard, high toughness, high plasticity, high dry strength, does not react with HCl.		
-4.0								
-5.0								
-6.0						Clayey SILT (MH), reddish-yellow (7.5YR6/8), dry, low toughness, low to medium plasticity, low dry strength, no reaction with HCl.		
-7.0	100	0						
-8.0						- with 3-inch clay seam starting at 8'.		
-9.0								
-10.0						- light gray (7.5YR7/1) with reddish-yellow mottling (7.5YR6/8), with iron staining, dry, very hard, low toughness, medium plasticity, medium to high dry strength, no reaction with HCl below 10'.		
-11.0								
-12.0	100	(0.7)						
-13.0								
-14.0					X			
-15.0								

Unless a signed seal is present, this log is DRAFT and released only for interim review under the authority of Phyllis Primrose, P.G. #2586. Any other use of this information without written consent from Phyllis Primrose is prohibited.

FIELD BOREHOLE LOG

BOREHOLE NUMBER: **B5/MW1**

TOTAL DEPTH: **30'**

RCG

15632 SH110 South, Suite #4 Whitehouse, TX 75791

www.rcgtex.com ph: 512.694.9326

PROJECT NAME: Landfill Closure Assessment

PROJECT NUMBER: AR09-195

LOCATION: LHAAP-19
Karnack, TX

GEOLOGIST: P. Primrose

DRILLING CO: ETTL

DRILLING METHOD: DPT and HSA

INSTALLATION DATE: 9/2/09

NORTHING: 6951676.35 EASTING: 3316943.07

GROUND SURFACE ELEVATION: 198.49

TOP OF CASING ELEVATION: 200.99

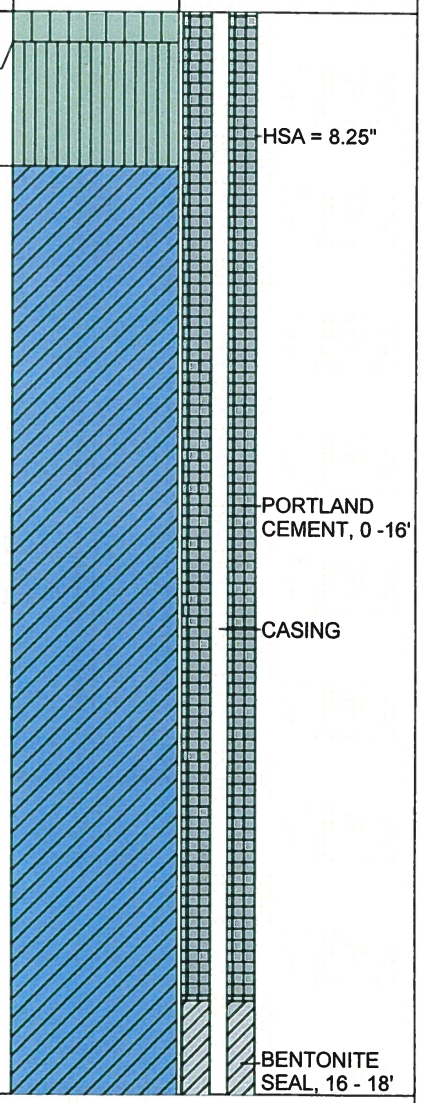
WELL DIAMETER (INCHES): 2-inch

STATE OF TEXAS
PHYLLIS PRIMROSE
GEOLOGY
2586
LICENSED
PROFESSIONAL GEOLOGIST

DEPTH	RECOVERY (%)	ORGANIC VAPOR	LEL	BLOW COUNTS	LAB SAMPLE	DESCRIPTION
0.0						SILT (ML), brown (7.5YR5/4), dry.
-1.0					X	
					X	SILT (MH), brown (7.5YR4/3).
-2.0	100	0				
-3.0						CLAY (CL), red (2.5YR4/6) and gray (7.5YR7/1 - 6/1).
-4.0						
-5.0						
-6.0						- soft to firm from 5 - 6'.
-7.0	100	0				- white to light gray (7.5YR8/1 - 7/1) and reddish-yellow (7.5YR6/6 - 6/8) below 6'. - with silt from 7 - 7.5', pinkish-gray, low to medium toughness and plasticity. - with black iron staining below 7'.
-8.0						
-9.0						
-10.0						
-11.0						- increasing hardness with depth from 10' to 15'. - moist from 10 - 11'.
-12.0	100	0				
-13.0						
-14.0					X	
-15.0					X	
-16.0						- hard from 15 - 19'.
-17.0	100	0				

LITHOLOGY

WELL COMPLETION



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FIELD BOREHOLE LOG

BOREHOLE NUMBER: **B5/MW1**

TOTAL DEPTH: **30'**

RCG

15632 SH110 South, Suite #4 Whitehouse, TX 75791

www.rcgtex.com ph: 512.694.9326

PROJECT NAME: Landfill Closure Assessment

PROJECT NUMBER: AR09-195

LOCATION: LHAAP-19
Karnack, TX

GEOLOGIST: P. Primrose

DRILLING CO: ETTL

DRILLING METHOD: DPT and HSA

INSTALLATION DATE: 9/2/09

NORTHING: 6951676.35 EASTING: 3316943.07

GROUND SURFACE ELEVATION: 198.49

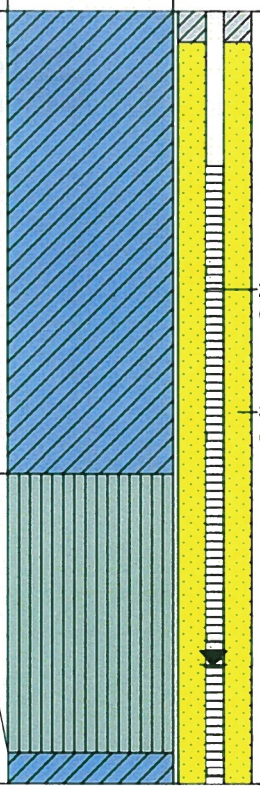
TOP OF CASING ELEVATION: 200.99

WELL DIAMETER (INCHES): 2-inch

STATE OF TEXAS
PHYLLIS PRIMROSE
GEOLOGY 6-29-10
2586
LICENSED
PROFESSIONAL GEOLOGIST

DEPTH	RECOVERY (%)	ORGANIC VAPOR	LEL	BLOW COUNTS	LAB SAMPLE	DESCRIPTION
-18.0						
-19.0						- firm below 19'.
-20.0						
-21.0						
-22.0	100	0				- decreasing hardness below 22'.
-23.0						
-24.0						
-25.0						SILT (MH), reddish-yellow (7.5YR 7/8), moist.
-26.0						- clayey to 28'.
-27.0	100	0				- wet from 28 - 28.5'.
-28.0						
-29.0						CLAY (CL), reddish-yellow (7.5YR7/8), dry, with 2-inch iron-rich seam at 29.5'.
-30.0						

LITHOLOGY



WELL COMPLETION

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FIELD BOREHOLE LOG

BOREHOLE NUMBER: **B8**

TOTAL DEPTH: **15'**

RCG

15632 SH110 South, Suite #4 Whitehouse, TX 75791

www.rcgtex.com *ph: 512.694.9326*

PROJECT NAME: **Landfill Closure Assessment**

PROJECT NUMBER: **AR09-195**

LOCATION: **LHAAP-19**
Karnack, TX

GEOLOGIST: **P. Primrose**

DRILLING CO: **ETTL**

DRILLING METHOD: **DPT**

INSTALLATION DATE: **9/2/09**

NORTHING: **6951492.03** EASTING: **3316467.95**

GROUND SURFACE ELEVATION: **199.99**

TOP OF CASING ELEVATION: **NA**

WELL DIAMETER (INCHES): **NA**

STATE OF TEXAS
PHYLLIS PRIMROSE
GEOLOGY
2586
LICENSED
PROFESSIONAL GEOLOGIST
6-29-10

DEPTH	RECOVERY (%)	ORGANIC VAPOR	LEL	BLOW COUNTS	LAB SAMPLE	DESCRIPTION	LITHOLOGY	WELL COMPLETION
0.0						SILT (ML), brown (7.5YR5/4), dry.		
-1.0					X	SILT (MH), brown (7.5YR4/3), dry.		
-2.0	80	0				CLAY (CL), white to light gray (7.5YR8/1 - 7/1) with red (7.5YR5/8) mottling, dry.		
-3.0					X	- with scattered iron nodules at 2.5'.		
-4.0								
-5.0						Clayey SILT (ML), light gray (7.5YR8/1 - 7/1) with reddish-yellow (7.5YR6/8), moist, soft to very soft, low toughness, medium plasticity with scattered roots to 8'.		
-6.0								
-7.0	100	0						
-8.0					X	- wet below 8'.		
-9.0						Silty CLAY (CL), light gray (7.5YR7/1) with reddish-yellow (7.5YR7/8) mottling and with black iron staining, dry, hard, medium to high toughness, high plasticity.		
-10.0								
-11.0								
-12.0	100	0						
-13.0					X			
-14.0					X			
-15.0					X			

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FIELD BOREHOLE LOG

BOREHOLE NUMBER: **B9/MW3**

TOTAL DEPTH: **30'**

RCG

15632 SH110 South, Suite #4 Whitehouse, TX 75791

www.rcgtex.com ph: 512.694.9326

PROJECT NAME: Landfill Closure Assessment

PROJECT NUMBER: AR09-195

LOCATION: LHAAP-19
Karnack, TX

GEOLOGIST: P. Primrose

DRILLING CO: ETTL

DRILLING METHOD: DPT and HSA

INSTALLATION DATE: 8/31/09

NORTHING: 6951588.30 EASTING: 3316429.32

GROUND SURFACE ELEVATION: 199.90

TOP OF CASING ELEVATION: 200.50

WELL DIAMETER (INCHES): 2-inch

STATE OF TEXAS
PHYLLIS PRIMROSE
GEOLOGY 6-29-10
2586
LICENSED
PROFESSIONAL GEOLOGIST

DEPTH	RECOVERY (%)	ORGANIC VAPOR	LEL	BLOW COUNTS	LAB SAMPLE	DESCRIPTION	LITHOLOGY	WELL COMPLETION
0.0					X	SILT (ML), brown (7.5YR5/4), dry.		
-1.0								
-2.0	85	0				CLAY (CH), gray (7.5YR7/1 - 6/1) with red (2.5YR5/8) mottling, dry to moist, blocky, firm, high toughness, high plasticity.		HSA = 8.25"
-3.0								
-4.0								
-5.0								
-6.0								
-7.0	100	0				- with silt seam from 6 - 7'.		
-8.0						- with silt seam from 8 - 9'.		PORTLAND CEMENT, 0 -16'
-9.0								
-10.0						CLAY (CL), light gray (7.5YR7/1) with reddish-yellow (7.5YR7/8) mottling, dry to moist, soft to firm, medium toughness, medium plasticity.		CASING
-11.0								
-12.0	100	0						
-13.0								
-14.0					X			
-15.0								
-16.0						Clayey SILT (MH), light gray (7.5YR7/1) with reddish-yellow (7.5YR7/8) mottling, dry, firm, low toughness, low plasticity, medium dry strength, with clay lenses.		
-17.0	100	0						BENTONITE SEAL, 16 - 18'

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FIELD BOREHOLE LOG

BOREHOLE NUMBER: **B9/MW3**

TOTAL DEPTH: **30'**

RCG

15632 SH110 South, Suite #4 Whitehouse, TX 75791

www.rcgtex.com ph: 512.694.9326

PROJECT NAME: Landfill Closure Assessment

PROJECT NUMBER: AR09-195

LOCATION: LHAAP-19

Karnack, TX

GEOLOGIST: P. Primrose

DRILLING CO: ETTL

DRILLING METHOD: DPT and HSA

INSTALLATION DATE: 8/31/09

NORTHING: 6951588.30 EASTING: 3316429.32

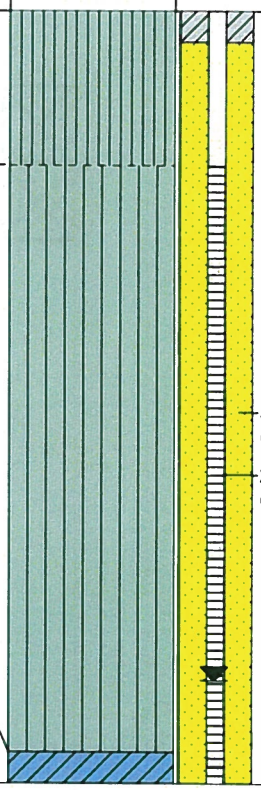
GROUND SURFACE ELEVATION: 199.90

TOP OF CASING ELEVATION: 200.50

WELL DIAMETER (INCHES): 2-inch

STATE OF TEXAS
PHYLLIS PRIMROSE
GEOLOGY
2586
LICENSED
PROFESSIONAL GEOLOGIST

DEPTH	RECOVERY (%)	ORGANIC VAPOR	LEL	BLOW COUNTS	LAB SAMPLE	DESCRIPTION	LITHOLOGY	WELL COMPLETION
-18.0								
-19.0								
-20.0						SILT (ML), pinkish-gray (7.5YR7/2), dry, crumbles easily, low toughness, non - low plasticity, low dry strength, - with 3" clay seam at 20'.		
-21.0								
-22.0	100	0						
-23.0								
-24.0								SAND PACK (20/40), 18 - 30'
-25.0								2" SCREEN (0.010), 20 - 30'
-26.0						- with clayey seam from 25-26.5 (dry, medium toughness, medium plasticity, crumbles).		
-27.0						- wet below 26.5'.		
-28.0	100	0						
-29.0								
-30.0						CLAY (CL), pinkish-gray (7.5YR7/2), dry.		



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FIELD BOREHOLE LOG

BOREHOLE NUMBER: **B10**

TOTAL DEPTH: **15'**

RCG

15632 SH110 South, Suite #4 Whitehouse, TX 75791

www.rcgtex.com ph: 512.694.9326

PROJECT NAME: **Landfill Closure Assessment**

PROJECT NUMBER: **AR09-195**

LOCATION: **LHAAP-19**
Karnack, TX

GEOLOGIST: **P. Primrose**

DRILLING CO: **ETTL**

DRILLING METHOD: **DPT**

INSTALLATION DATE: **9/2/09**

NORTHING: **6951803.34** EASTING: **3316350.11**

GROUND SURFACE ELEVATION: **194.22**

TOP OF CASING ELEVATION: **NA**

WELL DIAMETER (INCHES): **NA**

STATE OF TEXAS
PHYLLIS PRIMROSE
GEOLOGY
2586
LICENSED
PROFESSIONAL GEOLOGIST

DEPTH	RECOVERY (%)	ORGANIC VAPOR	LEL	BLOW COUNTS	LAB SAMPLE	DESCRIPTION	LITHOLOGY	WELL COMPLETION
0.0						SILT (ML), brown (7.5YR5/4), dry.		
-1.0					X	SILT (ML), brown (7.5YR4/3), dry, low to no dry strength.		
-2.0	100	0			X	CLAY (CH), pinkish-gray (7.5YR6/2) with red (2.5YR5/8) mottling, dry, hard to very hard, high toughness, high plasticity, high to very high dry strength.		
-3.0								
-4.0								
-5.0						Clayey SILT (ML), white to light gray (7.5YR8/1 to 7/1) with reddish-yellow (7.5YR7/1) mottling, moist, soft, low toughness, low plasticity, low dry strength.		
-6.0								
-7.0	100	0						
-8.0								
-9.0								
-10.0								
-11.0								
-12.0					X	- moist from 11.5 - 12'.		
-13.0	100	0			X			
-14.0					X	CLAY (CL), pinkish-gray (7.5YR6/2), dry, medium toughness, high plasticity, very high dry strength.		
-15.0								

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APPENDIX 3

STATE OF TEXAS WELL REPORTS

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00120689

STATE OF TEXAS WELL REPORT for Tracking #193471

Owner:	**Longhorn Army Ammunition Plant**	Owner Well #:	**See Comments**
Address:	**Hwy 143 @ Spur 449, LHAAP Karnack , TX 75661**	Grid #:	**35-24-7**
Well Location:	**Hwy 143 & Spur 449, LHAAP Karnack , TX 75661**	Latitude:	**32° 39' 37" N**
Well County:	**Harrison**	Longitude:	**094° 07' 03" W**
Elevation:	**No Data**	GPS Brand Used:	**Garmin e-trex**
Type of Work:	**New Well**	Proposed Use:	**Environmental Soil Boring**

Drilling Date:	Started: **8/31/2009** Completed: **9/2/2009**
Diameter of Hole:	Diameter: **2.25 in From Surface To 15 ft**
Drilling Method:	**Driven**
Borehole Completion:	**No Data**
Annular Seal Data:	1st Interval: **No Data** 2nd Interval: **No Data** 3rd Interval: **No Data**
Surface Completion:	**No Data**

Water Level:	Static level: **No Data** Artesian flow: **No Data**
Packers:	**No Data**
Plugging Info:	The well **was** plugged within 48 hours. Casing left in well: Cement/Bentonite left in well: From (ft) To (ft) From (ft) To (ft) Cem/Bent Sacks Used **---------- 0 -15 bentonite (0.5)**
Type Of Pump:	**No Data**
Well Tests:	**No Data**

Water Quality:	Type of Water: **No Data** Depth of Strata: **No Data** Chemical Analysis Made: **No Data** Did the driller knowingly penetrate any strata which contained undesirable constituents: **No Data**
Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**ETTL Engineers & Consultants Inc. 1717 E. Erwin Tyler , TX 75702**
Driller License	**58286**

00120690

Number:	
Licensed Well Driller Signature:	**Bobby Ragon**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**Represents 7 borings:** **B1,** **B3,** **B4,** **B6,** **B7,** **B8, &** **B10**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking **#193471**) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-0.5 Top soil
0.5-12 Silty lean clay - red, gray, & reddish yellow
12-15 Clayey silt - tan

CASING, BLANK PIPE & WELL SCREEN DATA

No Data

00120691

STATE OF TEXAS WELL REPORT for Tracking #193473

Owner:	**Longhorn Army Ammunition Plant**	Owner Well #:	**MW1**
Address:	**Hwy 143 @ Spur 449, LHAAP Karnack , TX 75661**	Grid #:	**35-24-7**
Well Location:	**Hwy 143 & Spur 449, LHAAP Karnack , TX 75661**	Latitude:	**32° 39' 41" N**
Well County:	**Harrison**	Longitude:	**094° 07' 01" W**
Elevation:	**No Data**	GPS Brand Used:	**Garmin e-trex**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Date: Started: **9/2/2009**
Completed: **9/2/2009**

Diameter of Hole: Diameter: **8.25 in From Surface To 30 ft**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: Gravel Packed From: **18 ft to 30 ft**
Gravel Pack Size: **20/40**

Annular Seal Data: 1st Interval: **From 0 ft to 16 ft with 3 cement (#sacks and material)**
2nd Interval: **From 16 ft to 18 ft with 1 bentonite (#sacks and material)**
3rd Interval: **No Data**
Method Used: **Tremie**
Cemented By: **Driller**
Distance to Septic Field or other Concentrated Contamination: **No Data**
Distance to Property Line: **No Data**
Method of Verification: **No Data**
Approved by Variance: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level: Static level: **No Data**
Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
Depth of Strata: **No Data**
Chemical Analysis Made: **Yes**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information: **ETTL Engineers & Consultants Inc.**
1717 E. Erwin

00120692

	Tyler , TX 75702
Driller License Number:	**58286**
Licensed Well Driller Signature:	**Bobby Ragon**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking **#193473**) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft)	To (ft)	Description
0	**0.5**	**Top soil**
0.5	**2.5**	**Silt - tan**
2.5	**25**	**Silty fat clay - red, gray, reddish yellow, & orange**
25	**28.5**	**Clayey silt - tan**
28.5	**30**	**Fat clay - tan, orange, & reddish yellow**

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
2	**New**	**PVC Sch. 40**	**0 - 20**
2	**New**	**PVC Sch. 40 - slotted**	**20 - 30 0.010"**

00120693

STATE OF TEXAS WELL REPORT for Tracking #193475

Owner:	**Longhorn Army Ammunition Plant**	Owner Well #:	**MW2**
Address:	**Hwy 143 @ Spur 449, LHAAP Karnack , TX 75661**	Grid #:	**35-24-7**
Well Location:	**Hwy 143 & Spur 449, LHAAP Karnack , TX 75661**	Latitude:	**32° 39' 45" N**
Well County:	**Harrison**	Longitude:	**094° 07' 04" W**
Elevation:	**No Data**	GPS Brand Used:	**Garmin e-trex**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Date: Started: **9/1/2009**
Completed: **9/1/2009**

Diameter of Hole: Diameter: **8.25 in From Surface To 28 ft**
Diameter: **2.25 in From 28 ft To 30 ft**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: Gravel Packed From: **16 ft to 30 ft**
Gravel Pack Size: **20/40**

Annular Seal Data: 1st Interval: **From 0 ft to 14 ft with 3 cement (#sacks and material)**
2nd Interval: **From 14 ft to 16 ft with 1 bentonite (#sacks and material)**
3rd Interval: **No Data**
Method Used: **Tremie**
Cemented By: **Driller**
Distance to Septic Field or other Concentrated Contamination: **No Data**
Distance to Property Line: **No Data**
Method of Verification: **No Data**
Approved by Variance: **No Data**

Surface Completion: **Surface Slab Installed**

Water Level: Static level: **No Data**
Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
Depth of Strata: **No Data**
Chemical Analysis Made: **Yes**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company **ETTL Engineers & Consultants Inc.**

00120694

Information:	**1717 E. Erwin Tyler , TX 75702**
Driller License Number:	**58286**
Licensed Well Driller Signature:	**Bobby Ragon**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking **#193475**) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft)	Description
0-15	**Lean clay - reddish yellow & greenish gray**
15-26	**Clayey silt - tan & orange**
26-30	**Fat clay**

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
2	**New**	**PVC Sch. 40**	**0 - 18**
2	**New**	**PVC Sch. 40 - slotted**	**18 - 28 0.010"**

00120695

STATE OF TEXAS WELL REPORT for Tracking #193474

Owner:	**Longhorn Army Ammunition Plant**	Owner Well #:	**MW3**
Address:	**Hwy 143 @ Spur 449, LHAAP Karnack , TX 75661**	Grid #:	**35-24-7**
Well Location:	**Hwy 143 & Spur 449, LHAAP Karnack , TX 75661**	Latitude:	**32° 39' 45" N**
Well County:	**Harrison**	Longitude:	**094° 07' 04" W**
Elevation:	**No Data**	GPS Brand Used:	**Garmin e-trex**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Date: Started: **8/31/2009**
Completed: **8/31/2009**

Diameter of Hole: Diameter: **8.25 in From Surface To 30 ft**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: Gravel Packed From: **18 ft to 30 ft**
Gravel Pack Size: **20/40**

Annular Seal Data: 1st Interval: **From 0 ft to 16 ft with 3 cement (#sacks and material)**
2nd Interval: **From 16 ft to 18 ft with 1 bentonite (#sacks and material)**
3rd Interval: **No Data**
Method Used: **Tremie**
Cemented By: **Driller**
Distance to Septic Field or other Concentrated Contamination: **No Data**
Distance to Property Line: **No Data**
Method of Verification: **No Data**
Approved by Variance: **No Data**

Surface Completion: **Alternative Procedure Used**

Water Level: Static level: **No Data**
Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
Depth of Strata: **No Data**
Chemical Analysis Made: **Yes**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information: **ETTL Engineers & Consultants Inc.**
1717 E. Erwin

00120696

	Tyler , TX 75702
Driller License Number:	**58286**
Licensed Well Driller Signature:	**Bobby Ragon**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking **#193474**) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-1.3 Silt
1.3-9 Fat clay - gray & red
9-15 Lean clay - gray & orange
15-29.5 Clayey silt - gray, reddish yellow, & pinkish gray
29.5-30 Lean clay

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
2 New PVC Sch. 40 0 - 20
2 New PVC Sch. 40 - slotted 20 - 30 0.010"

APPENDIX 4

SOIL DATA SUMMARY TABLE BASED ON RESIDENTIAL LAND USE

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Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,1,1,2-Tetrachloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	630-20-6	SW8260B	8/31/2009	0	-1	9.98E-04	U	9.98E-04	5.00E-03	3.28E+00	5.17E+01		
B1 0-1'	630-20-6	SW8260B	11/11/2009	0	-1	1.49E-03	U	1.49E-03	5.00E-03	3.28E+00	5.17E+01		
B1 14-15'	630-20-6	SW8260B	11/11/2009	-14	-15	1.08E-03	U	1.08E-03	5.00E-03	3.28E+00	5.17E+01		
B10-1	630-20-6	SW8260B	9/2/2009	-2	-3	1.19E-03	U	1.19E-03	5.00E-03	3.28E+00	5.17E+01		
B10-2	630-20-6	SW8260B	9/2/2009	-13	-14	1.01E-03	U	1.01E-03	5.00E-03	3.28E+00	5.17E+01		
B2 1-1.5	630-20-6	SW8260B	9/1/2009	-1	-1.5	9.43E-04	U	9.43E-04	5.00E-03	3.28E+00	5.17E+01		
B2 21-22.5	630-20-6	SW8260B	9/1/2009	-21	-22.5	1.12E-03	U	1.12E-03	5.00E-03	3.28E+00	5.17E+01		
B3 12-13	630-20-6	SW8260B	8/31/2009	-12	-13	8.97E-04	U	8.97E-04	5.00E-03	3.28E+00	5.17E+01		
B3 2-3	630-20-6	SW8260B	8/31/2009	-2	-3	1.05E-03	U	1.05E-03	5.00E-03	3.28E+00	5.17E+01		
B4 14.5-15	630-20-6	SW8260B	9/1/2009	-14.5	-15	1.02E-03	U	1.02E-03	5.00E-03	3.28E+00	5.17E+01		
B4 2-2.5	630-20-6	SW8260B	9/1/2009	-2	-2.5	1.09E-03	U	1.09E-03	5.00E-03	3.28E+00	5.17E+01		
B5-1	630-20-6	SW8260B	9/2/2009	-1	-1.5	1.07E-03	U	1.07E-03	5.00E-03	3.28E+00	5.17E+01		
B5-2	630-20-6	SW8260B	9/2/2009	-14.5	-15	1.02E-03	U	1.02E-03	5.00E-03	3.28E+00	5.17E+01		
B6-1	630-20-6	SW8260B	9/2/2009	-0.5	-1	9.89E-04	U	9.88E-04	5.00E-03	3.28E+00	5.17E+01		
B6-2	630-20-6	SW8260B	9/2/2009	-14.5	-15	1.02E-03	U	1.02E-03	5.00E-03	3.28E+00	5.17E+01		
B7 0-1'	630-20-6	SW8260B	11/11/2009	0	-1	1.18E-03	U	1.18E-03	5.00E-03	3.28E+00	5.17E+01		
B7 14-15'	630-20-6	SW8260B	11/11/2009	-14	-15	1.28E-03	U	1.28E-03	5.00E-03	3.28E+00	5.17E+01		
B8-1	630-20-6	SW8260B	9/2/2009	-1	-1.5	1.01E-03	U	1.01E-03	5.00E-03	3.28E+00	5.17E+01		
B8-2	630-20-6	SW8260B	9/2/2009	-14	-15	9.81E-04	U	9.81E-04	5.00E-03	3.28E+00	5.17E+01		
B8-3	630-20-6	SW8260B	9/2/2009	-8	-8.5	1.06E-03	U	1.06E-03	5.00E-03	3.28E+00	5.17E+01		
B9 0-1'	630-20-6	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	5.00E-03	3.28E+00	5.17E+01		
B9 14-15'	630-20-6	SW8260B	11/11/2009	-14	-15	1.26E-03	U	1.26E-03	5.00E-03	3.28E+00	5.17E+01		

1,1,1-Trichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	71-55-6	SW8260B	8/31/2009	0	-1	1.40E-03	U	1.40E-03	5.00E-03	2.00E+01	2.32E+03		
B1 0-1'	71-55-6	SW8260B	11/11/2009	0	-1	2.08E-03	U	2.08E-03	5.00E-03	2.00E+01	2.32E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,1,1-Trichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 14-15'	71-55-6	SW8260B	11/11/2009	-14	-15	1.53E-03	U	1.53E-03	5.00E-03	2.00E+01	2.32E+03		
B10-1	71-55-6	SW8260B	9/2/2009	-2	-3	1.66E-03	U	1.66E-03	5.00E-03	2.00E+01	2.32E+03		
B10-2	71-55-6	SW8260B	9/2/2009	-13	-14	1.42E-03	U	1.42E-03	5.00E-03	2.00E+01	2.32E+03		
B2 1-1.5	71-55-6	SW8260B	9/1/2009	-1	-1.5	1.32E-03	U	1.32E-03	5.00E-03	2.00E+01	2.32E+03		
B2 21-22.5	71-55-6	SW8260B	9/1/2009	-21	-22.5	1.56E-03	U	1.56E-03	5.00E-03	2.00E+01	2.32E+03		
B3 12-13	71-55-6	SW8260B	8/31/2009	-12	-13	1.25E-03	U	1.25E-03	5.00E-03	2.00E+01	2.32E+03		
B3 2-3	71-55-6	SW8260B	8/31/2009	-2	-3	1.47E-03	U	1.47E-03	5.00E-03	2.00E+01	2.32E+03		
B4 14.5-15	71-55-6	SW8260B	9/1/2009	-14.5	-15	1.43E-03	U	1.43E-03	5.00E-03	2.00E+01	2.32E+03		
B4 2-2.5	71-55-6	SW8260B	9/1/2009	-2	-2.5	1.52E-03	U	1.52E-03	5.00E-03	2.00E+01	2.32E+03		
B5-1	71-55-6	SW8260B	9/2/2009	-1	-1.5	1.50E-03	U	1.50E-03	5.00E-03	2.00E+01	2.32E+03		
B5-2	71-55-6	SW8260B	9/2/2009	-14.5	-15	1.43E-03	U	1.43E-03	5.00E-03	2.00E+01	2.32E+03		
B6-1	71-55-6	SW8260B	9/2/2009	-0.5	-1	1.38E-03	U	1.38E-03	5.00E-03	2.00E+01	2.32E+03		
B6-2	71-55-6	SW8260B	9/2/2009	-14.5	-15	1.43E-03	U	1.43E-03	5.00E-03	2.00E+01	2.32E+03		
B7 0-1'	71-55-6	SW8260B	11/11/2009	0	-1	1.64E-03	U	1.64E-03	5.00E-03	2.00E+01	2.32E+03		
B7 14-15'	71-55-6	SW8260B	11/11/2009	-14	-15	1.80E-03	U	1.80E-03	5.00E-03	2.00E+01	2.32E+03		
B8-1	71-55-6	SW8260B	9/2/2009	-1	-1.5	1.41E-03	U	1.41E-03	5.00E-03	2.00E+01	2.32E+03		
B8-2	71-55-6	SW8260B	9/2/2009	-14	-15	1.37E-03	U	1.37E-03	5.00E-03	2.00E+01	2.32E+03		
B8-3	71-55-6	SW8260B	9/2/2009	-8	-8.5	1.49E-03	U	1.49E-03	5.00E-03	2.00E+01	2.32E+03		
B9 0-1'	71-55-6	SW8260B	11/11/2009	0	-1	1.93E-03	U	1.93E-03	5.00E-03	2.00E+01	2.32E+03		
B9 14-15'	71-55-6	SW8260B	11/11/2009	-14	-15	1.78E-03	U	1.78E-03	5.00E-03	2.00E+01	2.32E+03		

1,1,2,2-Tetrachloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	79-34-5	SW8260B	8/31/2009	0	-1	6.70E-04	U	6.70E-04	5.00E-03	4.26E-01	5.08E+00		
B1 0-1'	79-34-5	SW8260B	11/11/2009	0	-1	1.00E-03	U	1.00E-03	5.00E-03	4.26E-01	5.08E+00		
B1 14-15'	79-34-5	SW8260B	11/11/2009	-14	-15	7.29E-04	U	7.29E-04	5.00E-03	4.26E-01	5.08E+00		
B10-1	79-34-5	SW8260B	9/2/2009	-2	-3	7.99E-04	U	7.99E-04	5.00E-03	4.26E-01	5.08E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,1,2,2-Tetrachloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-2	79-34-5	SW8260B	9/2/2009	-13	-14	6.80E-04	U	6.80E-04	5.00E-03	4.26E-01	5.08E+00		
B2 1-1.5	79-34-5	SW8260B	9/1/2009	-1	-1.5	6.33E-04	U	6.33E-04	5.00E-03	4.26E-01	5.08E+00		
B2 21-22.5	79-34-5	SW8260B	9/1/2009	-21	-22.5	7.49E-04	U	7.49E-04	5.00E-03	4.26E-01	5.08E+00		
B3 12-13	79-34-5	SW8260B	8/31/2009	-12	-13	6.02E-04	U	6.02E-04	5.00E-03	4.26E-01	5.08E+00		
B3 2-3	79-34-5	SW8260B	8/31/2009	-2	-3	7.04E-04	U	7.04E-04	5.00E-03	4.26E-01	5.08E+00		
B4 14.5-15	79-34-5	SW8260B	9/1/2009	-14.5	-15	6.84E-04	U	6.84E-04	5.00E-03	4.26E-01	5.08E+00		
B4 2-2.5	79-34-5	SW8260B	9/1/2009	-2	-2.5	7.30E-04	U	7.30E-04	5.00E-03	4.26E-01	5.08E+00		
B5-1	79-34-5	SW8260B	9/2/2009	-1	-1.5	7.18E-04	U	7.18E-04	5.00E-03	4.26E-01	5.08E+00		
B5-2	79-34-5	SW8260B	9/2/2009	-14.5	-15	6.84E-04	U	6.84E-04	5.00E-03	4.26E-01	5.08E+00		
B6-1	79-34-5	SW8260B	9/2/2009	-0.5	-1	6.64E-04	U	6.64E-04	5.00E-03	4.26E-01	5.08E+00		
B6-2	79-34-5	SW8260B	9/2/2009	-14.5	-15	6.84E-04	U	6.84E-04	5.00E-03	4.26E-01	5.08E+00		
B7 0-1'	79-34-5	SW8260B	11/11/2009	0	-1	7.87E-04	U	7.87E-04	5.00E-03	4.26E-01	5.08E+00		
B7 14-15'	79-34-5	SW8260B	11/11/2009	-14	-15	8.63E-04	U	8.63E-04	5.00E-03	4.26E-01	5.08E+00		
B8-1	79-34-5	SW8260B	9/2/2009	-1	-1.5	6.77E-04	U	6.77E-04	5.00E-03	4.26E-01	5.08E+00		
B8-2	79-34-5	SW8260B	9/2/2009	-14	-15	6.58E-04	U	6.58E-04	5.00E-03	4.26E-01	5.08E+00		
B8-3	79-34-5	SW8260B	9/2/2009	-8	-8.5	7.14E-04	U	7.14E-04	5.00E-03	4.26E-01	5.08E+00		
B9 0-1'	79-34-5	SW8260B	11/11/2009	0	-1	9.27E-04	U	9.27E-04	5.00E-03	4.26E-01	5.08E+00		
B9 14-15'	79-34-5	SW8260B	11/11/2009	-14	-15	8.51E-04	U	8.51E-04	5.00E-03	4.26E-01	5.08E+00		

1,1,2-Trichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	79-00-5	SW8260B	8/31/2009	0	-1	1.10E-03	U	1.10E-03	5.00E-03	5.00E-01	9.69E+00		
B1 0-1'	79-00-5	SW8260B	11/11/2009	0	-1	1.63E-03	U	1.63E-03	5.00E-03	5.00E-01	9.69E+00		
B1 14-15'	79-00-5	SW8260B	11/11/2009	-14	-15	1.19E-03	U	1.19E-03	5.00E-03	5.00E-01	9.69E+00		
B10-1	79-00-5	SW8260B	9/2/2009	-2	-3	1.31E-03	U	1.31E-03	5.00E-03	5.00E-01	9.69E+00		
B10-2	79-00-5	SW8260B	9/2/2009	-13	-14	1.11E-03	U	1.11E-03	5.00E-03	5.00E-01	9.69E+00		
B2 1-1.5	79-00-5	SW8260B	9/1/2009	-1	-1.5	1.04E-03	U	1.04E-03	5.00E-03	5.00E-01	9.69E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,1,2-Trichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B2 21-22.5	79-00-5	SW8260B	9/1/2009	-21	-22.5	1.23E-03	U	1.22E-03	5.00E-03	5.00E-01	9.69E+00		
B3 12-13	79-00-5	SW8260B	8/31/2009	-12	-13	9.85E-04	U	9.85E-04	5.00E-03	5.00E-01	9.69E+00		
B3 2-3	79-00-5	SW8260B	8/31/2009	-2	-3	1.15E-03	U	1.15E-03	5.00E-03	5.00E-01	9.69E+00		
B4 14.5-15	79-00-5	SW8260B	9/1/2009	-14.5	-15	1.12E-03	U	1.12E-03	5.00E-03	5.00E-01	9.69E+00		
B4 2-2.5	79-00-5	SW8260B	9/1/2009	-2	-2.5	1.19E-03	U	1.19E-03	5.00E-03	5.00E-01	9.69E+00		
B5-1	79-00-5	SW8260B	9/2/2009	-1	-1.5	1.17E-03	U	1.17E-03	5.00E-03	5.00E-01	9.69E+00		
B5-2	79-00-5	SW8260B	9/2/2009	-14.5	-15	1.12E-03	U	1.12E-03	5.00E-03	5.00E-01	9.69E+00		
B6-1	79-00-5	SW8260B	9/2/2009	-0.5	-1	1.09E-03	U	1.09E-03	5.00E-03	5.00E-01	9.69E+00		
B6-2	79-00-5	SW8260B	9/2/2009	-14.5	-15	1.12E-03	U	1.12E-03	5.00E-03	5.00E-01	9.69E+00		
B7 0-1'	79-00-5	SW8260B	11/11/2009	0	-1	1.30E-03	U	1.30E-03	5.00E-03	5.00E-01	9.69E+00		
B7 14-15'	79-00-5	SW8260B	11/11/2009	-14	-15	1.42E-03	U	1.42E-03	5.00E-03	5.00E-01	9.69E+00		
B8-1	79-00-5	SW8260B	9/2/2009	-1	-1.5	1.11E-03	U	1.11E-03	5.00E-03	5.00E-01	9.69E+00		
B8-2	79-00-5	SW8260B	9/2/2009	-14	-15	1.08E-03	U	1.08E-03	5.00E-03	5.00E-01	9.69E+00		
B8-3	79-00-5	SW8260B	9/2/2009	-8	-8.5	1.17E-03	U	1.17E-03	5.00E-03	5.00E-01	9.69E+00		
B9 0-1'	79-00-5	SW8260B	11/11/2009	0	-1	1.51E-03	U	1.51E-03	5.00E-03	5.00E-01	9.69E+00		
B9 14-15'	79-00-5	SW8260B	11/11/2009	-14	-15	1.39E-03	U	1.39E-03	5.00E-03	5.00E-01	9.69E+00		

1,1-Dichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	75-34-3	SW8260B	8/31/2009	0	-1	1.02E-03	U	1.02E-03	5.00E-03	3.65E+02	8.89E+02		
B1 0-1'	74-34-3	SW8260B	11/11/2009	0	-1	1.51E-03	U	1.51E-03	5.00E-03				
B1 14-15'	74-34-3	SW8260B	11/11/2009	-14	-15	1.10E-03	U	1.10E-03	5.00E-03				
B10-1	75-34-3	SW8260B	9/2/2009	-2	-3	1.21E-03	U	1.21E-03	5.00E-03	3.65E+02	8.89E+02		
B10-2	75-34-3	SW8260B	9/2/2009	-13	-14	1.03E-03	U	1.03E-03	5.00E-03	3.65E+02	8.89E+02		
B2 1-1.5	75-34-3	SW8260B	9/1/2009	-1	-1.5	9.62E-04	U	9.62E-04	5.00E-03	3.65E+02	8.89E+02		
B2 21-22.5	75-34-3	SW8260B	9/1/2009	-21	-22.5	1.14E-03	U	1.14E-03	5.00E-03	3.65E+02	8.89E+02		
B3 12-13	75-34-3	SW8260B	8/31/2009	-12	-13	9.15E-04	U	9.15E-04	5.00E-03	3.65E+02	8.89E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,1-Dichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 2-3	75-34-3	SW8260B	8/31/2009	-2	-3	1.07E-03	U	1.07E-03	5.00E-03	3.65E+02	8.89E+02		
B4 14.5-15	75-34-3	SW8260B	9/1/2009	-14.5	-15	1.04E-03	U	1.04E-03	5.00E-03	3.65E+02	8.89E+02		
B4 2-2.5	75-34-3	SW8260B	9/1/2009	-2	-2.5	1.11E-03	U	1.11E-03	5.00E-03	3.65E+02	8.89E+02		
B5-1	75-34-3	SW8260B	9/2/2009	-1	-1.5	1.09E-03	U	1.09E-03	5.00E-03	3.65E+02	8.89E+02		
B5-2	75-34-3	SW8260B	9/2/2009	-14.5	-15	1.04E-03	U	1.04E-03	5.00E-03	3.65E+02	8.89E+02		
B6-1	75-34-3	SW8260B	9/2/2009	-0.5	-1	1.01E-03	U	1.01E-03	5.00E-03	3.65E+02	8.89E+02		
B6-2	75-34-3	SW8260B	9/2/2009	-14.5	-15	1.04E-03	U	1.04E-03	5.00E-03	3.65E+02	8.89E+02		
B7 0-1'	74-34-3	SW8260B	11/11/2009	0	-1	1.20E-03	U	1.20E-03	5.00E-03				
B7 14-15'	74-34-3	SW8260B	11/11/2009	-14	-15	1.30E-03	U	1.30E-03	5.00E-03				
B8-1	75-34-3	SW8260B	9/2/2009	-1	-1.5	1.03E-03	U	1.03E-03	5.00E-03	3.65E+02	8.89E+02		
B8-2	75-34-3	SW8260B	9/2/2009	-14	-15	1.00E-03	U	1.00E-03	5.00E-03	3.65E+02	8.89E+02		
B8-3	75-34-3	SW8260B	9/2/2009	-8	-8.5	1.08E-03	U	1.08E-03	5.00E-03	3.65E+02	8.89E+02		
B9 0-1'	74-34-3	SW8260B	11/11/2009	0	-1	1.42E-03	U	1.42E-03	5.00E-03				
B9 14-15'	74-34-3	SW8260B	11/11/2009	-14	-15	1.30E-03	U	1.30E-03	5.00E-03				

1,1-Dichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	75-35-4	SW8260B	8/31/2009	0	-1	1.17E-03	U	1.17E-03	5.00E-03	7.00E-01	2.68E+02		
B1 0-1'	75-35-4	SW8260B	11/11/2009	0	-1	1.74E-03	U	1.74E-03	5.00E-03	7.00E-01	2.68E+02		
B1 14-15'	75-35-4	SW8260B	11/11/2009	-14	-15	1.28E-03	U	1.28E-03	5.00E-03	7.00E-01	2.68E+02		
B10-1	75-35-4	SW8260B	9/2/2009	-2	-3	1.40E-03	U	1.40E-03	5.00E-03	7.00E-01	2.68E+02		
B10-2	75-35-4	SW8260B	9/2/2009	-13	-14	1.19E-03	U	1.19E-03	5.00E-03	7.00E-01	2.68E+02		
B2 1-1.5	75-35-4	SW8260B	9/1/2009	-1	-1.5	1.11E-03	U	1.11E-03	5.00E-03	7.00E-01	2.68E+02		
B2 21-22.5	75-35-4	SW8260B	9/1/2009	-21	-22.5	1.31E-03	U	1.31E-03	5.00E-03	7.00E-01	2.68E+02		
B3 12-13	75-35-4	SW8260B	8/31/2009	-12	-13	1.06E-03	U	1.06E-03	5.00E-03	7.00E-01	2.68E+02		
B3 2-3	75-35-4	SW8260B	8/31/2009	-2	-3	1.23E-03	U	1.23E-03	5.00E-03	7.00E-01	2.68E+02		
B4 14.5-15	75-35-4	SW8260B	9/1/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	7.00E-01	2.68E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,1-Dichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 2-2.5	75-35-4	SW8260B	9/1/2009	-2	-2.5	1.28E-03	U	1.28E-03	5.00E-03	7.00E-01	2.68E+02		
B5-1	75-35-4	SW8260B	9/2/2009	-1	-1.5	1.26E-03	U	1.26E-03	5.00E-03	7.00E-01	2.68E+02		
B5-2	75-35-4	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	7.00E-01	2.68E+02		
B6-1	75-35-4	SW8260B	9/2/2009	-0.5	-1	1.16E-03	U	1.16E-03	5.00E-03	7.00E-01	2.68E+02		
B6-2	75-35-4	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	7.00E-01	2.68E+02		
B7 0-1'	75-35-4	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	5.00E-03	7.00E-01	2.68E+02		
B7 14-15'	75-35-4	SW8260B	11/11/2009	-14	-15	1.52E-03	U	1.52E-03	5.00E-03	7.00E-01	2.68E+02		
B8-1	75-35-4	SW8260B	9/2/2009	-1	-1.5	1.19E-03	U	1.19E-03	5.00E-03	7.00E-01	2.68E+02		
B8-2	75-35-4	SW8260B	9/2/2009	-14	-15	1.15E-03	U	1.15E-03	5.00E-03	7.00E-01	2.68E+02		
B8-3	75-35-4	SW8260B	9/2/2009	-8	-8.5	1.25E-03	U	1.25E-03	5.00E-03	7.00E-01	2.68E+02		
B9 0-1'	75-35-4	SW8260B	11/11/2009	0	-1	1.62E-03	U	1.62E-03	5.00E-03	7.00E-01	2.68E+02		
B9 14-15'	75-35-4	SW8260B	11/11/2009	-14	-15	1.49E-03	U	1.49E-03	5.00E-03	7.00E-01	2.68E+02		

1,1-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	563-58-6	SW8260B	8/31/2009	0	-1	7.66E-04	U	7.66E-04	5.00E-03	8.52E-02	9.92E-01		
B1 0-1'	563-58-6	SW8260B	11/11/2009	0	-1	1.14E-03	U	1.14E-03	5.00E-03	8.52E-02	9.92E-01		
B1 0-1'	563-58-6	SW8260B	11/11/2009	0	-1	6.50E-04	U	6.50E-04	1.00E-03	8.52E-02	9.92E-01		
B1 14-15'	563-58-6	SW8260B	11/11/2009	-14	-15	5.27E-04	U	5.27E-04	1.00E-03	8.52E-02	9.92E-01		
B1 14-15'	563-58-6	SW8260B	11/11/2009	-14	-15	8.34E-04	U	8.34E-04	5.00E-03	8.52E-02	9.92E-01		
B10-1	563-58-6	SW8260B	9/2/2009	-2	-3	9.14E-04	U	9.14E-04	5.00E-03	8.52E-02	9.92E-01		
B10-2	563-58-6	SW8260B	9/2/2009	-13	-14	7.78E-04	U	7.78E-04	5.00E-03	8.52E-02	9.92E-01		
B2 1-1.5	563-58-6	SW8260B	9/1/2009	-1	-1.5	7.24E-04	U	7.24E-04	5.00E-03	8.52E-02	9.92E-01		
B2 21-22.5	563-58-6	SW8260B	9/1/2009	-21	-22.5	8.57E-04	U	8.57E-04	5.00E-03	8.52E-02	9.92E-01		
B3 12-13	563-58-6	SW8260B	8/31/2009	-12	-13	6.89E-04	U	6.89E-04	5.00E-03	8.52E-02	9.92E-01		
B3 2-3	563-58-6	SW8260B	8/31/2009	-2	-3	8.06E-04	U	8.06E-04	5.00E-03	8.52E-02	9.92E-01		
B4 14.5-15	563-58-6	SW8260B	9/1/2009	-14.5	-15	7.83E-04	U	7.83E-04	5.00E-03	8.52E-02	9.92E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,1-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 2-2.5	563-58-6	SW8260B	9/1/2009	-2	-2.5	8.35E-04	U	8.35E-04	5.00E-03	8.52E-02	9.92E-01		
B5-1	563-58-6	SW8260B	9/2/2009	-1	-1.5	8.22E-04	U	8.22E-04	5.00E-03	8.52E-02	9.92E-01		
B5-2	563-58-6	SW8260B	9/2/2009	-14.5	-15	7.83E-04	U	7.83E-04	5.00E-03	8.52E-02	9.92E-01		
B6-1	563-58-6	SW8260B	9/2/2009	-0.5	-1	7.59E-04	U	7.59E-04	5.00E-03	8.52E-02	9.92E-01		
B6-2	563-58-6	SW8260B	9/2/2009	-14.5	-15	7.83E-04	U	7.83E-04	5.00E-03	8.52E-02	9.92E-01		
B7 0-1'	563-58-6	SW8260B	11/11/2009	0	-1	5.55E-04	U	5.55E-04	1.00E-03	8.52E-02	9.92E-01		
B7 0-1'	563-58-6	SW8260B	11/11/2009	0	-1	9.02E-04	U	9.03E-04	5.00E-03	8.52E-02	9.92E-01		
B7 14-15'	563-58-6	SW8260B	11/11/2009	-14	-15	9.87E-04	U	9.87E-04	5.00E-03	8.52E-02	9.92E-01		
B7 14-15'	563-58-6	SW8260B	11/11/2009	-14	-15	5.89E-04	U	5.89E-04	1.00E-03	8.52E-02	9.92E-01		
B8-1	563-58-6	SW8260B	9/2/2009	-1	-1.5	7.74E-04	U	7.74E-04	5.00E-03	8.52E-02	9.92E-01		
B8-2	563-58-6	SW8260B	9/2/2009	-14	-15	7.53E-04	U	7.53E-04	5.00E-03	8.52E-02	9.92E-01		
B8-3	563-58-6	SW8260B	9/2/2009	-8	-8.5	8.17E-04	U	8.17E-04	5.00E-03	8.52E-02	9.92E-01		
B9 0-1'	563-58-6	SW8260B	11/11/2009	0	-1	1.06E-03	U	1.06E-03	5.00E-03	8.52E-02	9.92E-01		
B9 0-1'	563-58-6	SW8260B	11/11/2009	0	-1	6.19E-04	U	6.19E-04	1.00E-03	8.52E-02	9.92E-01		
B9 14-15'	563-58-6	SW8260B	11/11/2009	-14	-15	9.74E-04	U	9.74E-04	5.00E-03	8.52E-02	9.92E-01		
B9 14-15'	563-58-6	SW8260B	11/11/2009	-14	-15	5.84E-04	U	5.84E-04	1.00E-03	8.52E-02	9.92E-01		

1,2,3-Trichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	87-61-6	SW8260B	8/31/2009	0	-1	9.91E-04	U	9.91E-04	5.00E-03	1.09E+01	4.20E+02		
B1 0-1'	87-61-6	SW8260B	11/11/2009	0	-1	1.48E-03	U	1.48E-03	5.00E-03	1.09E+01	4.20E+02		
B1 14-15'	87-61-6	SW8260B	11/11/2009	-14	-15	1.08E-03	U	1.08E-03	5.00E-03	1.09E+01	4.20E+02		
B10-1	87-61-6	SW8260B	9/2/2009	-2	-3	1.18E-03	U	1.18E-03	5.00E-03	1.09E+01	4.20E+02		
B10-2	87-61-6	SW8260B	9/2/2009	-13	-14	1.01E-03	U	1.01E-03	5.00E-03	1.09E+01	4.20E+02		
B2 1-1.5	87-61-6	SW8260B	9/1/2009	-1	-1.5	9.36E-04	U	9.36E-04	5.00E-03	1.09E+01	4.20E+02		
B2 21-22.5	87-61-6	SW8260B	9/1/2009	-21	-22.5	1.11E-03	U	1.11E-03	5.00E-03	1.09E+01	4.20E+02		
B3 12-13	87-61-6	SW8260B	8/31/2009	-12	-13	8.91E-04	U	8.91E-04	5.00E-03	1.09E+01	4.20E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,2,3-Trichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 2-3	87-61-6	SW8260B	8/31/2009	-2	-3	1.04E-03	U	1.04E-03	5.00E-03	1.09E+01	4.20E+02		
B4 14.5-15	87-61-6	SW8260B	9/1/2009	-14.5	-15	1.01E-03	U	1.01E-03	5.00E-03	1.09E+01	4.20E+02		
B4 2-2.5	87-61-6	SW8260B	9/1/2009	-2	-2.5	1.08E-03	U	1.08E-03	5.00E-03	1.09E+01	4.20E+02		
B5-1	87-61-6	SW8260B	9/2/2009	-1	-1.5	1.06E-03	U	1.06E-03	5.00E-03	1.09E+01	4.20E+02		
B5-2	87-61-6	SW8260B	9/2/2009	-14.5	-15	1.01E-03	U	1.01E-03	5.00E-03	1.09E+01	4.20E+02		
B6-1	87-61-6	SW8260B	9/2/2009	-0.5	-1	9.82E-04	U	9.82E-04	5.00E-03	1.09E+01	4.20E+02		
B6-2	87-61-6	SW8260B	9/2/2009	-14.5	-15	1.01E-03	U	1.01E-03	5.00E-03	1.09E+01	4.20E+02		
B7 0-1'	87-61-6	SW8260B	11/11/2009	0	-1	1.17E-03	U	1.17E-03	5.00E-03	1.09E+01	4.20E+02		
B7 14-15'	87-61-6	SW8260B	11/11/2009	-14	-15	1.28E-03	U	1.28E-03	5.00E-03	1.09E+01	4.20E+02		
B8-1	87-61-6	SW8260B	9/2/2009	-1	-1.5	1.00E-03	U	1.00E-03	5.00E-03	1.09E+01	4.20E+02		
B8-2	87-61-6	SW8260B	9/2/2009	-14	-15	9.74E-04	U	9.74E-04	5.00E-03	1.09E+01	4.20E+02		
B8-3	87-61-6	SW8260B	9/2/2009	-8	-8.5	1.06E-03	U	1.06E-03	5.00E-03	1.09E+01	4.20E+02		
B9 0-1'	87-61-6	SW8260B	11/11/2009	0	-1	1.37E-03	U	1.37E-03	5.00E-03	1.09E+01	4.20E+02		
B9 14-15'	87-61-6	SW8260B	11/11/2009	-14	-15	1.25E-03	U	1.25E-03	5.00E-03	1.09E+01	4.20E+02		

1,2,3-Trichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	96-18-4	SW8260B	8/31/2009	0	-1	1.26E-03	U	1.26E-03	5.00E-03	1.22E-03	9.15E-02		
B1 0-1'	96-18-4	SW8260B	11/11/2009	0	-1	1.87E-03	U	1.87E-03	5.00E-03	1.22E-03	9.15E-02		
B1 0-1'	96-18-4	SW8260B	11/11/2009	0	-1	7.94E-05	U	7.94E-05	2.50E-04	1.22E-03	9.15E-02		
B1 14-15'	96-18-4	SW8260B	11/11/2009	-14	-15	1.37E-03	U	1.37E-03	5.00E-03	1.22E-03	9.15E-02		
B1 14-15'	96-18-4	SW8260B	11/11/2009	-14	-15	6.44E-05	U	6.44E-05	2.50E-04	1.22E-03	9.15E-02		
B10-1	96-18-4	SW8260B	9/2/2009	-2	-3	1.50E-03	U	1.50E-03	5.00E-03	1.22E-03	9.15E-02		
B10-2	96-18-4	SW8260B	9/2/2009	-13	-14	1.28E-03	U	1.28E-03	5.00E-03	1.22E-03	9.15E-02		
B2 1-1.5	96-18-4	SW8260B	9/1/2009	-1	-1.5	1.19E-03	U	1.19E-03	5.00E-03	1.22E-03	9.15E-02		
B2 21-22.5	96-18-4	SW8260B	9/1/2009	-21	-22.5	1.40E-03	U	1.40E-03	5.00E-03	1.22E-03	9.15E-02		
B3 12-13	96-18-4	SW8260B	8/31/2009	-12	-13	1.13E-03	U	1.13E-03	5.00E-03	1.22E-03	9.15E-02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,2,3-Trichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 2-3	96-18-4	SW8260B	8/31/2009	-2	-3	1.32E-03	U	1.32E-03	5.00E-03	1.22E-03	9.15E-02		
B4 14.5-15	96-18-4	SW8260B	9/1/2009	-14.5	-15	1.28E-03	U	1.28E-03	5.00E-03	1.22E-03	9.15E-02		
B4 2-2.5	96-18-4	SW8260B	9/1/2009	-2	-2.5	1.37E-03	U	1.37E-03	5.00E-03	1.22E-03	9.15E-02		
B5-1	96-18-4	SW8260B	9/2/2009	-1	-1.5	1.35E-03	U	1.35E-03	5.00E-03	1.22E-03	9.15E-02		
B5-2	96-18-4	SW8260B	9/2/2009	-14.5	-15	1.28E-03	U	1.28E-03	5.00E-03	1.22E-03	9.15E-02		
B6-1	96-18-4	SW8260B	9/2/2009	-0.5	-1	1.24E-03	U	1.24E-03	5.00E-03	1.22E-03	9.15E-02		
B6-2	96-18-4	SW8260B	9/2/2009	-14.5	-15	1.28E-03	U	1.28E-03	5.00E-03	1.22E-03	9.15E-02		
B7 0-1'	96-18-4	SW8260B	11/11/2009	0	-1	6.78E-05	U	6.78E-05	2.50E-04	1.22E-03	9.15E-02		
B7 0-1'	96-18-4	SW8260B	11/11/2009	0	-1	1.48E-03	U	1.48E-03	5.00E-03	1.22E-03	9.15E-02		
B7 14-15'	96-18-4	SW8260B	11/11/2009	-14	-15	1.62E-03	U	1.62E-03	5.00E-03	1.22E-03	9.15E-02		
B7 14-15'	96-18-4	SW8260B	11/11/2009	-14	-15	7.20E-05	U	7.20E-05	2.50E-04	1.22E-03	9.15E-02		
B8-1	96-18-4	SW8260B	9/2/2009	-1	-1.5	1.27E-03	U	1.27E-03	5.00E-03	1.22E-03	9.15E-02		
B8-2	96-18-4	SW8260B	9/2/2009	-14	-15	1.23E-03	U	1.23E-03	5.00E-03	1.22E-03	9.15E-02		
B8-3	96-18-4	SW8260B	9/2/2009	-8	-8.5	1.34E-03	U	1.34E-03	5.00E-03	1.22E-03	9.15E-02		
B9 0-1'	96-18-4	SW8260B	11/11/2009	0	-1	1.75E-03	U	1.75E-03	5.00E-03	1.22E-03	9.15E-02		
B9 0-1'	96-18-4	SW8260B	11/11/2009	0	-1	7.56E-05	U	7.56E-05	2.50E-04	1.22E-03	9.15E-02		
B9 14-15'	96-18-4	SW8260B	11/11/2009	-14	-15	7.13E-05	U	7.13E-05	2.50E-04	1.22E-03	9.15E-02		
B9 14-15'	96-18-4	SW8260B	11/11/2009	-14	-15	1.59E-03	U	1.59E-03	5.00E-03	1.22E-03	9.15E-02		

1,2,4,5-Tetrachlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	95-94-3	SW8270C	8/31/2009	0	-1	1.55E-01	U	1.55E-01	3.30E-01	1.10E+00	4.64E+01		
B1 0-1'	95-94-3	SW8270C	11/11/2009	0	-1	1.60E-01	U	1.60E-01	3.30E-01	1.10E+00	4.64E+01		
B1 14-15'	95-94-3	SW8270C	11/11/2009	-14	-15	1.44E-01	U	1.44E-01	3.30E-01	1.10E+00	4.64E+01		
B10-1	95-94-3	SW8270C	9/2/2009	-2	-3	1.85E-01	U	1.84E-01	3.30E-01	1.10E+00	4.64E+01		
B10-2	95-94-3	SW8270C	9/2/2009	-13	-14	1.57E-01	U	1.57E-01	3.30E-01	1.10E+00	4.64E+01		
B2 1-1.5	95-94-3	SW8270C	9/1/2009	-1	-1.5	1.46E-01	U	1.46E-01	3.30E-01	1.10E+00	4.64E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,2,4,5-Tetrachlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B2 21-22.5	95-94-3	SW8270C	9/1/2009	-21	-22.5	1.73E-01	U	1.73E-01	3.30E-01	1.10E+00	4.64E+01		
B3 12-13	95-94-3	SW8270C	8/31/2009	-12	-13	1.39E-01	U	1.39E-01	3.30E-01	1.10E+00	4.64E+01		
B3 2-3	95-94-3	SW8270C	8/31/2009	-2	-3	1.63E-01	U	1.63E-01	3.30E-01	1.10E+00	4.64E+01		
B4 14-14.5	95-94-3	SW8270C	9/1/2009	-14	-14.5	1.56E-01	U	1.56E-01	3.30E-01	1.10E+00	4.64E+01		
B4 2-2.5	95-94-3	SW8270C	9/1/2009	-2	-2.5	1.69E-01	U	1.69E-01	3.30E-01	1.10E+00	4.64E+01		
B5-1	95-94-3	SW8270C	9/2/2009	-1	-1.5	1.66E-01	U	1.66E-01	3.30E-01	1.10E+00	4.64E+01		
B5-2	95-94-3	SW8270C	9/2/2009	-14.5	-15	1.58E-01	U	1.58E-01	3.30E-01	1.10E+00	4.64E+01		
B6-1	95-94-3	SW8270C	9/2/2009	-0.5	-1	1.53E-01	U	1.53E-01	3.30E-01	1.10E+00	4.64E+01		
B6-2	95-94-3	SW8270C	9/2/2009	-14.5	-15	1.58E-01	U	1.58E-01	3.30E-01	1.10E+00	4.64E+01		
B7 0-1'	95-94-3	SW8270C	11/11/2009	0	-1	1.48E-01	U	1.48E-01	3.30E-01	1.10E+00	4.64E+01		
B7 14-15'	95-94-3	SW8270C	11/11/2009	-14	-15	1.52E-01	U	1.52E-01	3.30E-01	1.10E+00	4.64E+01		
B8-1	95-94-3	SW8270C	9/2/2009	-1	-1.5	1.56E-01	U	1.56E-01	3.30E-01	1.10E+00	4.64E+01		
B8-2	95-94-3	SW8270C	9/2/2009	-14	-15	1.52E-01	U	1.52E-01	3.30E-01	1.10E+00	4.64E+01		
B9 0-1'	95-94-3	SW8270C	11/11/2009	0	-1	1.56E-01	U	1.56E-01	3.30E-01	1.10E+00	4.64E+01		
B9 14-15'	95-94-3	SW8270C	11/11/2009	-14	-15	1.52E-01	U	1.51E-01	3.30E-01	1.10E+00	4.64E+01		

1,2,4-Trichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	120-82-1	SW8270C	8/31/2009	0	-1	5.06E-02	U	5.06E-02	3.30E-01	7.00E+00	1.36E+03		
B1 0-1	120-82-1	SW8260B	8/31/2009	0	-1	2.91E-03	U	2.91E-03	5.00E-03	7.00E+00	1.36E+03		
B1 0-1'	120-82-1	SW8260B	11/11/2009	0	-1	2.78E-03	U	2.78E-03	5.00E-03	7.00E+00	1.36E+03		
B1 0-1'	120-82-1	SW8270C	11/11/2009	0	-1	5.23E-02	U	5.23E-02	3.30E-01	7.00E+00	1.36E+03		
B1 14-15'	120-82-1	SW8260B	11/11/2009	-14	-15	2.02E-03	U	2.02E-03	5.00E-03	7.00E+00	1.36E+03		
B1 14-15'	120-82-1	SW8270C	11/11/2009	-14	-15	4.71E-02	U	4.71E-02	3.30E-01	7.00E+00	1.36E+03		
B10-1	120-82-1	SW8260B	9/2/2009	-2	-3	3.47E-03	U	3.47E-03	5.00E-03	7.00E+00	1.36E+03		
B10-1	120-82-1	SW8270C	9/2/2009	-2	-3	6.03E-02	U	6.03E-02	3.30E-01	7.00E+00	1.36E+03		
B10-2	120-82-1	SW8260B	9/2/2009	-13	-14	2.95E-03	U	2.95E-03	5.00E-03	7.00E+00	1.36E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,2,4-Trichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-2	120-82-1	SW8270C	9/2/2009	-13	-14	5.14E-02	U	5.14E-02	3.30E-01	7.00E+00	1.36E+03		
B2 1-1.5	120-82-1	SW8260B	9/1/2009	-1	-1.5	2.75E-03	U	2.75E-03	5.00E-03	7.00E+00	1.36E+03		
B2 1-1.5	120-82-1	SW8270C	9/1/2009	-1	-1.5	4.78E-02	U	4.78E-02	3.30E-01	7.00E+00	1.36E+03		
B2 21-22.5	120-82-1	SW8260B	9/1/2009	-21	-22.5	3.25E-03	U	3.25E-03	5.00E-03	7.00E+00	1.36E+03		
B2 21-22.5	120-82-1	SW8270C	9/1/2009	-21	-22.5	5.66E-02	U	5.66E-02	3.30E-01	7.00E+00	1.36E+03		
B3 12-13	120-82-1	SW8260B	8/31/2009	-12	-13	2.61E-03	U	2.61E-03	5.00E-03	7.00E+00	1.36E+03		
B3 12-13	120-82-1	SW8270C	8/31/2009	-12	-13	4.55E-02	U	4.55E-02	3.30E-01	7.00E+00	1.36E+03		
B3 2-3	120-82-1	SW8260B	8/31/2009	-2	-3	3.06E-03	U	3.06E-03	5.00E-03	7.00E+00	1.36E+03		
B3 2-3	120-82-1	SW8270C	8/31/2009	-2	-3	5.32E-02	U	5.32E-02	3.30E-01	7.00E+00	1.36E+03		
B4 14.5-15	120-82-1	SW8260B	9/1/2009	-14.5	-15	2.97E-03	U	2.97E-03	5.00E-03	7.00E+00	1.36E+03		
B4 14-14.5	120-82-1	SW8270C	9/1/2009	-14	-14.5	5.11E-02	U	5.11E-02	3.30E-01	7.00E+00	1.36E+03		
B4 2-2.5	120-82-1	SW8260B	9/1/2009	-2	-2.5	3.17E-03	U	3.17E-03	5.00E-03	7.00E+00	1.36E+03		
B4 2-2.5	120-82-1	SW8270C	9/1/2009	-2	-2.5	5.51E-02	U	5.51E-02	3.30E-01	7.00E+00	1.36E+03		
B5-1	120-82-1	SW8270C	9/2/2009	-1	-1.5	5.42E-02	U	5.42E-02	3.30E-01	7.00E+00	1.36E+03		
B5-1	120-82-1	SW8260B	9/2/2009	-1	-1.5	3.12E-03	U	3.12E-03	5.00E-03	7.00E+00	1.36E+03		
B5-2	120-82-1	SW8260B	9/2/2009	-14.5	-15	2.97E-03	U	2.97E-03	5.00E-03	7.00E+00	1.36E+03		
B5-2	120-82-1	SW8270C	9/2/2009	-14.5	-15	5.17E-02	U	5.17E-02	3.30E-01	7.00E+00	1.36E+03		
B6-1	120-82-1	SW8270C	9/2/2009	-0.5	-1	5.01E-02	U	5.01E-02	3.30E-01	7.00E+00	1.36E+03		
B6-1	120-82-1	SW8260B	9/2/2009	-0.5	-1	2.88E-03	U	2.88E-03	5.00E-03	7.00E+00	1.36E+03		
B6-2	120-82-1	SW8270C	9/2/2009	-14.5	-15	5.17E-02	U	5.17E-02	3.30E-01	7.00E+00	1.36E+03		
B6-2	120-82-1	SW8260B	9/2/2009	-14.5	-15	2.97E-03	U	2.97E-03	5.00E-03	7.00E+00	1.36E+03		
B7 0-1'	120-82-1	SW8260B	11/11/2009	0	-1	2.20E-03	U	2.20E-03	5.00E-03	7.00E+00	1.36E+03		
B7 0-1'	120-82-1	SW8270C	11/11/2009	0	-1	4.83E-02	U	4.83E-02	3.30E-01	7.00E+00	1.36E+03		
B7 14-15'	120-82-1	SW8260B	11/11/2009	-14	-15	2.39E-03	U	2.39E-03	5.00E-03	7.00E+00	1.36E+03		
B7 14-15'	120-82-1	SW8270C	11/11/2009	-14	-15	4.98E-02	U	4.98E-02	3.30E-01	7.00E+00	1.36E+03		
B8-1	120-82-1	SW8260B	9/2/2009	-1	-1.5	2.94E-03	U	2.94E-03	5.00E-03	7.00E+00	1.36E+03		
B8-1	120-82-1	SW8270C	9/2/2009	-1	-1.5	5.11E-02	U	5.11E-02	3.30E-01	7.00E+00	1.36E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,2,4-Trichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-2	120-82-1	SW8270C	9/2/2009	-14	-15	4.97E-02	U	4.97E-02	3.30E-01	7.00E+00	1.36E+03		
B8-2	120-82-1	SW8260B	9/2/2009	-14	-15	2.86E-03	U	2.86E-03	5.00E-03	7.00E+00	1.36E+03		
B8-3	120-82-1	SW8260B	9/2/2009	-8	-8.5	3.10E-03	U	3.10E-03	5.00E-03	7.00E+00	1.36E+03		
B9 0-1'	120-82-1	SW8270C	11/11/2009	0	-1	5.10E-02	U	5.10E-02	3.30E-01	7.00E+00	1.36E+03		
B9 0-1'	120-82-1	SW8260B	11/11/2009	0	-1	2.58E-03	U	2.58E-03	5.00E-03	7.00E+00	1.36E+03		
B9 14-15'	120-82-1	SW8270C	11/11/2009	-14	-15	4.95E-02	U	4.95E-02	3.30E-01	7.00E+00	1.36E+03		
B9 14-15'	120-82-1	SW8260B	11/11/2009	-14	-15	2.36E-03	U	2.36E-03	5.00E-03	7.00E+00	1.36E+03		

1,2,4-Trimethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	95-63-6	SW8260B	8/31/2009	0	-1	7.38E-04	U	7.38E-04	5.00E-03	1.83E+02	9.60E+01		
B1 0-1'	95-63-6	SW8260B	11/11/2009	0	-1	1.10E-03	U	1.10E-03	5.00E-03	1.83E+02	9.60E+01		
B1 14-15'	95-63-6	SW8260B	11/11/2009	-14	-15	8.04E-04	U	8.04E-04	5.00E-03	1.83E+02	9.60E+01		
B10-1	95-63-6	SW8260B	9/2/2009	-2	-3	8.81E-04	U	8.81E-04	5.00E-03	1.83E+02	9.60E+01		
B10-2	95-63-6	SW8260B	9/2/2009	-13	-14	7.50E-04	U	7.50E-04	5.00E-03	1.83E+02	9.60E+01		
B2 1-1.5	95-63-6	SW8260B	9/1/2009	-1	-1.5	6.98E-04	U	6.98E-04	5.00E-03	1.83E+02	9.60E+01		
B2 21-22.5	95-63-6	SW8260B	9/1/2009	-21	-22.5	8.26E-04	U	8.26E-04	5.00E-03	1.83E+02	9.60E+01		
B3 12-13	95-63-6	SW8260B	8/31/2009	-12	-13	6.64E-04	U	6.64E-04	5.00E-03	1.83E+02	9.60E+01		
B3 2-3	95-63-6	SW8260B	8/31/2009	-2	-3	7.76E-04	U	7.76E-04	5.00E-03	1.83E+02	9.60E+01		
B4 14.5-15	95-63-6	SW8260B	9/1/2009	-14.5	-15	7.54E-04	U	7.54E-04	5.00E-03	1.83E+02	9.60E+01		
B4 2-2.5	95-63-6	SW8260B	9/1/2009	-2	-2.5	8.05E-04	U	8.05E-04	5.00E-03	1.83E+02	9.60E+01		
B5-1	95-63-6	SW8260B	9/2/2009	-1	-1.5	7.92E-04	U	7.92E-04	5.00E-03	1.83E+02	9.60E+01		
B5-2	95-63-6	SW8260B	9/2/2009	-14.5	-15	7.54E-04	U	7.54E-04	5.00E-03	1.83E+02	9.60E+01		
B6-1	95-63-6	SW8260B	9/2/2009	-0.5	-1	7.32E-04	U	7.32E-04	5.00E-03	1.83E+02	9.60E+01		
B6-2	95-63-6	SW8260B	9/2/2009	-14.5	-15	7.54E-04	U	7.54E-04	5.00E-03	1.83E+02	9.60E+01		
B7 0-1'	95-63-6	SW8260B	11/11/2009	0	-1	8.69E-04	U	8.69E-04	5.00E-03	1.83E+02	9.60E+01		
B7 14-15'	95-63-6	SW8260B	11/11/2009	-14	-15	9.52E-04	U	9.52E-04	5.00E-03	1.83E+02	9.60E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,2,4-Trimethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-1	95-63-6	SW8260B	9/2/2009	-1	-1.5	7.46E-04	U	7.46E-04	5.00E-03	1.83E+02	9.60E+01		
B8-2	95-63-6	SW8260B	9/2/2009	-14	-15	7.26E-04	U	7.26E-04	5.00E-03	1.83E+02	9.60E+01		
B8-3	95-63-6	SW8260B	9/2/2009	-8	-8.5	7.87E-04	U	7.87E-04	5.00E-03	1.83E+02	9.60E+01		
B9 0-1'	95-63-6	SW8260B	11/11/2009	0	-1	1.02E-03	U	1.02E-03	5.00E-03	1.83E+02	9.60E+01		
B9 14-15'	95-63-6	SW8260B	11/11/2009	-14	-15	9.37E-04	U	9.37E-04	5.00E-03	1.83E+02	9.60E+01		

1,2-Dibromo-3-chloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	96-12-8	SW8260B	8/31/2009	0	-1	1.70E-03	U	1.70E-03	5.00E-03	2.00E-02	3.48E-01		
B1 0-1'	96-12-8	SW8260B	11/11/2009	0	-1	9.39E-05	U	9.39E-05	2.50E-04	2.00E-02	3.48E-01		
B1 0-1'	96-12-8	SW8260B	11/11/2009	0	-1	2.52E-03	U	2.52E-03	5.00E-03	2.00E-02	3.48E-01		
B1 14-15'	96-12-8	SW8260B	11/11/2009	-14	-15	7.61E-05	U	7.61E-05	2.50E-04	2.00E-02	3.48E-01		
B1 14-15'	96-12-8	SW8260B	11/11/2009	-14	-15	1.85E-03	U	1.85E-03	5.00E-03	2.00E-02	3.48E-01		
B10-1	96-12-8	SW8260B	9/2/2009	-2	-3	2.02E-03	U	2.02E-03	5.00E-03	2.00E-02	3.48E-01		
B10-2	96-12-8	SW8260B	9/2/2009	-13	-14	1.72E-03	U	1.72E-03	5.00E-03	2.00E-02	3.48E-01		
B2 1-1.5	96-12-8	SW8260B	9/1/2009	-1	-1.5	1.60E-03	U	1.60E-03	5.00E-03	2.00E-02	3.48E-01		
B2 21-22.5	96-12-8	SW8260B	9/1/2009	-21	-22.5	1.90E-03	U	1.90E-03	5.00E-03	2.00E-02	3.48E-01		
B3 12-13	96-12-8	SW8260B	8/31/2009	-12	-13	1.53E-03	U	1.53E-03	5.00E-03	2.00E-02	3.48E-01		
B3 2-3	96-12-8	SW8260B	8/31/2009	-2	-3	1.78E-03	U	1.78E-03	5.00E-03	2.00E-02	3.48E-01		
B4 14.5-15	96-12-8	SW8260B	9/1/2009	-14.5	-15	1.73E-03	U	1.73E-03	5.00E-03	2.00E-02	3.48E-01		
B4 2-2.5	96-12-8	SW8260B	9/1/2009	-2	-2.5	1.85E-03	U	1.85E-03	5.00E-03	2.00E-02	3.48E-01		
B5-1	96-12-8	SW8260B	9/2/2009	-1	-1.5	1.82E-03	U	1.82E-03	5.00E-03	2.00E-02	3.48E-01		
B5-2	96-12-8	SW8260B	9/2/2009	-14.5	-15	1.73E-03	U	1.73E-03	5.00E-03	2.00E-02	3.48E-01		
B6-1	96-12-8	SW8260B	9/2/2009	-0.5	-1	1.68E-03	U	1.68E-03	5.00E-03	2.00E-02	3.48E-01		
B6-2	96-12-8	SW8260B	9/2/2009	-14.5	-15	1.73E-03	U	1.73E-03	5.00E-03	2.00E-02	3.48E-01		
B7 0-1'	96-12-8	SW8260B	11/11/2009	0	-1	2.00E-03	U	2.00E-03	5.00E-03	2.00E-02	3.48E-01		
B7 0-1'	96-12-8	SW8260B	11/11/2009	0	-1	8.02E-05	U	8.02E-05	2.50E-04	2.00E-02	3.48E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,2-Dibromo-3-chloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 14-15'	96-12-8	SW8260B	11/11/2009	-14	-15	8.51E-05	U	8.51E-05	2.50E-04	2.00E-02	3.48E-01		
B7 14-15'	96-12-8	SW8260B	11/11/2009	-14	-15	2.19E-03	U	2.19E-03	5.00E-03	2.00E-02	3.48E-01		
B8-1	96-12-8	SW8260B	9/2/2009	-1	-1.5	1.72E-03	U	1.72E-03	5.00E-03	2.00E-02	3.48E-01		
B8-2	96-12-8	SW8260B	9/2/2009	-14	-15	1.67E-03	U	1.67E-03	5.00E-03	2.00E-02	3.48E-01		
B8-3	96-12-8	SW8260B	9/2/2009	-8	-8.5	1.81E-03	U	1.81E-03	5.00E-03	2.00E-02	3.48E-01		
B9 0-1'	96-12-8	SW8260B	11/11/2009	0	-1	8.93E-05	U	8.93E-05	2.50E-04	2.00E-02	3.48E-01		
B9 0-1'	96-12-8	SW8260B	11/11/2009	0	-1	2.34E-03	U	2.34E-03	5.00E-03	2.00E-02	3.48E-01		
B9 14-15'	96-12-8	SW8260B	11/11/2009	-14	-15	8.43E-05	U	8.43E-05	2.50E-04	2.00E-02	3.48E-01		
B9 14-15'	96-12-8	SW8260B	11/11/2009	-14	-15	2.15E-03	U	2.15E-03	5.00E-03	2.00E-02	3.48E-01		

1,2-Dibromoethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	106-93-4	SW8260B	8/31/2009	0	-1	8.63E-04	U	8.63E-04	5.00E-03	5.00E-03	5.31E-02		
B1 0-1'	106-93-4	SW8260B	11/11/2009	0	-1	6.07E-05	U	6.07E-05	2.50E-04	5.00E-03	5.31E-02		
B1 0-1'	106-93-4	SW8260B	11/11/2009	0	-1	1.29E-03	U	1.29E-03	5.00E-03	5.00E-03	5.31E-02		
B1 14-15'	106-93-4	SW8260B	11/11/2009	-14	-15	9.40E-04	U	9.40E-04	5.00E-03	5.00E-03	5.31E-02		
B1 14-15'	106-93-4	SW8260B	11/11/2009	-14	-15	4.91E-05	U	4.91E-05	2.50E-04	5.00E-03	5.31E-02		
B10-1	106-93-4	SW8260B	9/2/2009	-2	-3	1.03E-03	U	1.03E-03	5.00E-03	5.00E-03	5.31E-02		
B10-2	106-93-4	SW8260B	9/2/2009	-13	-14	8.76E-04	U	8.76E-04	5.00E-03	5.00E-03	5.31E-02		
B2 1-1.5	106-93-4	SW8260B	9/1/2009	-1	-1.5	8.15E-04	U	8.15E-04	5.00E-03	5.00E-03	5.31E-02		
B2 21-22.5	106-93-4	SW8260B	9/1/2009	-21	-22.5	9.65E-04	U	9.65E-04	5.00E-03	5.00E-03	5.31E-02		
B3 12-13	106-93-4	SW8260B	8/31/2009	-12	-13	7.76E-04	U	7.76E-04	5.00E-03	5.00E-03	5.31E-02		
B3 2-3	106-93-4	SW8260B	8/31/2009	-2	-3	9.07E-04	U	9.07E-04	5.00E-03	5.00E-03	5.31E-02		
B4 14.5-15	106-93-4	SW8260B	9/1/2009	-14.5	-15	8.81E-04	U	8.81E-04	5.00E-03	5.00E-03	5.31E-02		
B4 2-2.5	106-93-4	SW8260B	9/1/2009	-2	-2.5	9.40E-04	U	9.40E-04	5.00E-03	5.00E-03	5.31E-02		
B5-1	106-93-4	SW8260B	9/2/2009	-1	-1.5	9.25E-04	U	9.25E-04	5.00E-03	5.00E-03	5.31E-02		
B5-2	106-93-4	SW8260B	9/2/2009	-14.5	-15	8.81E-04	U	8.81E-04	5.00E-03	5.00E-03	5.31E-02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,2-Dibromoethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B6-1	106-93-4	SW8260B	9/2/2009	-0.5	-1	8.55E-04	U	8.55E-04	5.00E-03	5.00E-03	5.31E-02		
B6-2	106-93-4	SW8260B	9/2/2009	-14.5	-15	8.81E-04	U	8.81E-04	5.00E-03	5.00E-03	5.31E-02		
B7 0-1'	106-93-4	SW8260B	11/11/2009	0	-1	5.17E-05	U	5.17E-05	2.50E-04	5.00E-03	5.31E-02		
B7 0-1'	106-93-4	SW8260B	11/11/2009	0	-1	1.02E-03	U	1.02E-03	5.00E-03	5.00E-03	5.31E-02		
B7 14-15'	106-93-4	SW8260B	11/11/2009	-14	-15	5.50E-05	U	5.50E-05	2.50E-04	5.00E-03	5.31E-02		
B7 14-15'	106-93-4	SW8260B	11/11/2009	-14	-15	1.11E-03	U	1.11E-03	5.00E-03	5.00E-03	5.31E-02		
B8-1	106-93-4	SW8260B	9/2/2009	-1	-1.5	8.72E-04	U	8.72E-04	5.00E-03	5.00E-03	5.31E-02		
B8-2	106-93-4	SW8260B	9/2/2009	-14	-15	8.48E-04	U	8.48E-04	5.00E-03	5.00E-03	5.31E-02		
B8-3	106-93-4	SW8260B	9/2/2009	-8	-8.5	9.19E-04	U	9.19E-04	5.00E-03	5.00E-03	5.31E-02		
B9 0-1'	106-93-4	SW8260B	11/11/2009	0	-1	1.20E-03	U	1.20E-03	5.00E-03	5.00E-03	5.31E-02		
B9 0-1'	106-93-4	SW8260B	11/11/2009	0	-1	5.77E-05	U	5.77E-05	2.50E-04	5.00E-03	5.31E-02		
B9 14-15'	106-93-4	SW8260B	11/11/2009	-14	-15	5.44E-05	U	5.44E-05	2.50E-04	5.00E-03	5.31E-02		
B9 14-15'	106-93-4	SW8260B	11/11/2009	-14	-15	1.10E-03	U	1.10E-03	5.00E-03	5.00E-03	5.31E-02		

1,2-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	95-50-1	SW8260B	8/31/2009	0	-1	7.20E-04	U	7.20E-04	5.00E-03	6.00E+01	5.61E+02		
B1 0-1	95-50-1	SW8270C	8/31/2009	0	-1	7.29E-02	U	7.29E-02	3.30E-01	6.00E+01	5.61E+02		
B1 0-1'	95-50-1	SW8270C	11/11/2009	0	-1	7.54E-02	U	7.54E-02	3.30E-01	6.00E+01	5.61E+02		
B1 0-1'	95-50-1	SW8260B	11/11/2009	0	-1	1.07E-03	U	1.07E-03	5.00E-03	6.00E+01	5.61E+02		
B1 14-15'	95-50-1	SW8270C	11/11/2009	-14	-15	6.78E-02	U	6.78E-02	3.30E-01	6.00E+01	5.61E+02		
B1 14-15'	95-50-1	SW8260B	11/11/2009	-14	-15	7.84E-04	U	7.84E-04	5.00E-03	6.00E+01	5.61E+02		
B10-1	95-50-1	SW8260B	9/2/2009	-2	-3	8.59E-04	U	8.59E-04	5.00E-03	6.00E+01	5.61E+02		
B10-1	95-50-1	SW8270C	9/2/2009	-2	-3	8.70E-02	U	8.70E-02	3.30E-01	6.00E+01	5.61E+02		
B10-2	95-50-1	SW8270C	9/2/2009	-13	-14	7.40E-02	U	7.40E-02	3.30E-01	6.00E+01	5.61E+02		
B10-2	95-50-1	SW8260B	9/2/2009	-13	-14	7.31E-04	U	7.31E-04	5.00E-03	6.00E+01	5.61E+02		
B2 1-1.5	95-50-1	SW8260B	9/1/2009	-1	-1.5	6.80E-04	U	6.80E-04	5.00E-03	6.00E+01	5.61E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,2-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B2 1-1.5	95-50-1	SW8270C	9/1/2009	-1	-1.5	6.89E-02	U	6.89E-02	3.30E-01	6.00E+01	5.61E+02		
B2 21-22.5	95-50-1	SW8270C	9/1/2009	-21	-22.5	8.15E-02	U	8.15E-02	3.30E-01	6.00E+01	5.61E+02		
B2 21-22.5	95-50-1	SW8260B	9/1/2009	-21	-22.5	8.05E-04	U	8.05E-04	5.00E-03	6.00E+01	5.61E+02		
B3 12-13	95-50-1	SW8270C	8/31/2009	-12	-13	6.56E-02	U	6.56E-02	3.30E-01	6.00E+01	5.61E+02		
B3 12-13	95-50-1	SW8260B	8/31/2009	-12	-13	6.47E-04	U	6.47E-04	5.00E-03	6.00E+01	5.61E+02		
B3 2-3	95-50-1	SW8270C	8/31/2009	-2	-3	7.67E-02	U	7.67E-02	3.30E-01	6.00E+01	5.61E+02		
B3 2-3	95-50-1	SW8260B	8/31/2009	-2	-3	7.57E-04	U	7.57E-04	5.00E-03	6.00E+01	5.61E+02		
B4 14.5-15	95-50-1	SW8260B	9/1/2009	-14.5	-15	7.35E-04	U	7.35E-04	5.00E-03	6.00E+01	5.61E+02		
B4 14-14.5	95-50-1	SW8270C	9/1/2009	-14	-14.5	7.36E-02	U	7.36E-02	3.30E-01	6.00E+01	5.61E+02		
B4 2-2.5	95-50-1	SW8270C	9/1/2009	-2	-2.5	7.95E-02	U	7.95E-02	3.30E-01	6.00E+01	5.61E+02		
B4 2-2.5	95-50-1	SW8260B	9/1/2009	-2	-2.5	7.85E-04	U	7.85E-04	5.00E-03	6.00E+01	5.61E+02		
B5-1	95-50-1	SW8270C	9/2/2009	-1	-1.5	7.82E-02	U	7.82E-02	3.30E-01	6.00E+01	5.61E+02		
B5-1	95-50-1	SW8260B	9/2/2009	-1	-1.5	7.72E-04	U	7.72E-04	5.00E-03	6.00E+01	5.61E+02		
B5-2	95-50-1	SW8270C	9/2/2009	-14.5	-15	7.45E-02	U	7.45E-02	3.30E-01	6.00E+01	5.61E+02		
B5-2	95-50-1	SW8260B	9/2/2009	-14.5	-15	7.35E-04	U	7.35E-04	5.00E-03	6.00E+01	5.61E+02		
B6-1	95-50-1	SW8260B	9/2/2009	-0.5	-1	7.13E-04	U	7.13E-04	5.00E-03	6.00E+01	5.61E+02		
B6-1	95-50-1	SW8270C	9/2/2009	-0.5	-1	7.22E-02	U	7.22E-02	3.30E-01	6.00E+01	5.61E+02		
B6-2	95-50-1	SW8270C	9/2/2009	-14.5	-15	7.45E-02	U	7.45E-02	3.30E-01	6.00E+01	5.61E+02		
B6-2	95-50-1	SW8260B	9/2/2009	-14.5	-15	7.35E-04	U	7.35E-04	5.00E-03	6.00E+01	5.61E+02		
B7 0-1'	95-50-1	SW8260B	11/11/2009	0	-1	8.47E-04	U	8.47E-04	5.00E-03	6.00E+01	5.61E+02		
B7 0-1'	95-50-1	SW8270C	11/11/2009	0	-1	6.96E-02	U	6.96E-02	3.30E-01	6.00E+01	5.61E+02		
B7 14-15'	95-50-1	SW8270C	11/11/2009	-14	-15	7.17E-02	U	7.17E-02	3.30E-01	6.00E+01	5.61E+02		
B7 14-15'	95-50-1	SW8260B	11/11/2009	-14	-15	9.27E-04	U	9.27E-04	5.00E-03	6.00E+01	5.61E+02		
B8-1	95-50-1	SW8260B	9/2/2009	-1	-1.5	7.27E-04	U	7.27E-04	5.00E-03	6.00E+01	5.61E+02		
B8-1	95-50-1	SW8270C	9/2/2009	-1	-1.5	7.37E-02	U	7.37E-02	3.30E-01	6.00E+01	5.61E+02		
B8-2	95-50-1	SW8270C	9/2/2009	-14	-15	7.17E-02	U	7.17E-02	3.30E-01	6.00E+01	5.61E+02		
B8-2	95-50-1	SW8260B	9/2/2009	-14	-15	7.07E-04	U	7.07E-04	5.00E-03	6.00E+01	5.61E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,2-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-3	95-50-1	SW8260B	9/2/2009	-8	-8.5	7.67E-04	U	7.67E-04	5.00E-03	6.00E+01	5.61E+02		
B9 0-1'	95-50-1	SW8260B	11/11/2009	0	-1	9.98E-04	U	9.98E-04	5.00E-03	6.00E+01	5.61E+02		
B9 0-1'	95-50-1	SW8270C	11/11/2009	0	-1	7.35E-02	U	7.35E-02	3.30E-01	6.00E+01	5.61E+02		
B9 14-15'	95-50-1	SW8260B	11/11/2009	-14	-15	9.15E-04	U	9.15E-04	5.00E-03	6.00E+01	5.61E+02		
B9 14-15'	95-50-1	SW8270C	11/11/2009	-14	-15	7.14E-02	U	7.14E-02	3.30E-01	6.00E+01	5.61E+02		

1,2-Dichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	107-06-2	SW8260B	8/31/2009	0	-1	7.85E-04	U	7.85E-04	5.00E-03	5.00E-01	2.69E-01		
B1 0-1'	107-06-2	SW8260B	11/11/2009	0	-1	1.17E-03	U	1.17E-03	5.00E-03	5.00E-01	2.69E-01		
B1 14-15'	107-06-2	SW8260B	11/11/2009	-14	-15	8.55E-04	U	8.55E-04	5.00E-03	5.00E-01	2.69E-01		
B10-1	107-06-2	SW8260B	9/2/2009	-2	-3	9.36E-04	U	9.36E-04	5.00E-03	5.00E-01	2.69E-01		
B10-2	107-06-2	SW8260B	9/2/2009	-13	-14	7.97E-04	U	7.97E-04	5.00E-03	5.00E-01	2.69E-01		
B2 1-1.5	107-06-2	SW8260B	9/1/2009	-1	-1.5	7.42E-04	U	7.42E-04	5.00E-03	5.00E-01	2.69E-01		
B2 21-22.5	107-06-2	SW8260B	9/1/2009	-21	-22.5	8.78E-04	U	8.78E-04	5.00E-03	5.00E-01	2.69E-01		
B3 12-13	107-06-2	SW8260B	8/31/2009	-12	-13	7.06E-04	U	7.06E-04	5.00E-03	5.00E-01	2.69E-01		
B3 2-3	107-06-2	SW8260B	8/31/2009	-2	-3	8.25E-04	U	8.25E-04	5.00E-03	5.00E-01	2.69E-01		
B4 14.5-15	107-06-2	SW8260B	9/1/2009	-14.5	-15	8.02E-04	U	8.02E-04	5.00E-03	5.00E-01	2.69E-01		
B4 2-2.5	107-06-2	SW8260B	9/1/2009	-2	-2.5	8.56E-04	U	8.56E-04	5.00E-03	5.00E-01	2.69E-01		
B5-1	107-06-2	SW8260B	9/2/2009	-1	-1.5	8.42E-04	U	8.42E-04	5.00E-03	5.00E-01	2.69E-01		
B5-2	107-06-2	SW8260B	9/2/2009	-14.5	-15	8.02E-04	U	8.02E-04	5.00E-03	5.00E-01	2.69E-01		
B6-1	107-06-2	SW8260B	9/2/2009	-0.5	-1	7.78E-04	U	7.78E-04	5.00E-03	5.00E-01	2.69E-01		
B6-2	107-06-2	SW8260B	9/2/2009	-14.5	-15	8.02E-04	U	8.02E-04	5.00E-03	5.00E-01	2.69E-01		
B7 0-1'	107-06-2	SW8260B	11/11/2009	0	-1	9.23E-04	U	9.23E-04	5.00E-03	5.00E-01	2.69E-01		
B7 14-15'	107-06-2	SW8260B	11/11/2009	-14	-15	1.01E-03	U	1.01E-03	5.00E-03	5.00E-01	2.69E-01		
B8-1	107-06-2	SW8260B	9/2/2009	-1	-1.5	7.93E-04	U	7.93E-04	5.00E-03	5.00E-01	2.69E-01		
B8-2	107-06-2	SW8260B	9/2/2009	-14	-15	7.71E-04	U	7.71E-04	5.00E-03	5.00E-01	2.69E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,2-Dichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-3	107-06-2	SW8260B	9/2/2009	-8	-8.5	8.36E-04	U	8.36E-04	5.00E-03	5.00E-01	2.69E-01		
B9 0-1'	107-06-2	SW8260B	11/11/2009	0	-1	1.09E-03	U	1.09E-03	5.00E-03	5.00E-01	2.69E-01		
B9 14-15'	107-06-2	SW8260B	11/11/2009	-14	-15	9.98E-04	U	9.98E-04	5.00E-03	5.00E-01	2.69E-01		

1,2-Dichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	78-87-5	SW8260B	8/31/2009	0	-1	1.00E-03	U	1.00E-03	5.00E-03	5.00E-01	9.42E+00		
B1 0-1'	78-87-5	SW8260B	11/11/2009	0	-1	1.50E-03	U	1.50E-03	5.00E-03	5.00E-01	9.42E+00		
B1 14-15'	78-87-5	SW8260B	11/11/2009	-14	-15	1.09E-03	U	1.09E-03	5.00E-03	5.00E-01	9.42E+00		
B10-1	78-87-5	SW8260B	9/2/2009	-2	-3	1.20E-03	U	1.20E-03	5.00E-03	5.00E-01	9.42E+00		
B10-2	78-87-5	SW8260B	9/2/2009	-13	-14	1.02E-03	U	1.02E-03	5.00E-03	5.00E-01	9.42E+00		
B2 1-1.5	78-87-5	SW8260B	9/1/2009	-1	-1.5	9.50E-04	U	9.49E-04	5.00E-03	5.00E-01	9.42E+00		
B2 21-22.5	78-87-5	SW8260B	9/1/2009	-21	-22.5	1.12E-03	U	1.12E-03	5.00E-03	5.00E-01	9.42E+00		
B3 12-13	78-87-5	SW8260B	8/31/2009	-12	-13	9.04E-04	U	9.03E-04	5.00E-03	5.00E-01	9.42E+00		
B3 2-3	78-87-5	SW8260B	8/31/2009	-2	-3	1.06E-03	U	1.06E-03	5.00E-03	5.00E-01	9.42E+00		
B4 14.5-15	78-87-5	SW8260B	9/1/2009	-14.5	-15	1.03E-03	U	1.03E-03	5.00E-03	5.00E-01	9.42E+00		
B4 2-2.5	78-87-5	SW8260B	9/1/2009	-2	-2.5	1.10E-03	U	1.10E-03	5.00E-03	5.00E-01	9.42E+00		
B5-1	78-87-5	SW8260B	9/2/2009	-1	-1.5	1.08E-03	U	1.08E-03	5.00E-03	5.00E-01	9.42E+00		
B5-2	78-87-5	SW8260B	9/2/2009	-14.5	-15	1.03E-03	U	1.03E-03	5.00E-03	5.00E-01	9.42E+00		
B6-1	78-87-5	SW8260B	9/2/2009	-0.5	-1	9.95E-04	U	9.95E-04	5.00E-03	5.00E-01	9.42E+00		
B6-2	78-87-5	SW8260B	9/2/2009	-14.5	-15	1.03E-03	U	1.03E-03	5.00E-03	5.00E-01	9.42E+00		
B7 0-1'	78-87-5	SW8260B	11/11/2009	0	-1	1.18E-03	U	1.18E-03	5.00E-03	5.00E-01	9.42E+00		
B7 14-15'	78-87-5	SW8260B	11/11/2009	-14	-15	1.29E-03	U	1.29E-03	5.00E-03	5.00E-01	9.42E+00		
B8-1	78-87-5	SW8260B	9/2/2009	-1	-1.5	1.02E-03	U	1.02E-03	5.00E-03	5.00E-01	9.42E+00		
B8-2	78-87-5	SW8260B	9/2/2009	-14	-15	9.87E-04	U	9.87E-04	5.00E-03	5.00E-01	9.42E+00		
B8-3	78-87-5	SW8260B	9/2/2009	-8	-8.5	1.07E-03	U	1.07E-03	5.00E-03	5.00E-01	9.42E+00		
B9 0-1'	78-87-5	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	5.00E-03	5.00E-01	9.42E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,2-Dichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B9 14-15'	78-87-5	SW8260B	11/11/2009	-14	-15	1.28E-03	U	1.28E-03	5.00E-03	5.00E-01	9.42E+00		

1,2-Diphenylhydrazine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	122-66-7	SW8270C	8/31/2009	0	-1	1.07E-02	U	1.07E-02	3.33E-02	1.06E-02	6.12E-01		
B1 0-1	122-66-7	SW8270C	8/31/2009	0	-1	2.31E-02	U	2.31E-02	3.30E-01	1.06E-02	6.12E-01		
B1 0-1'	122-66-7	SW8270C	11/11/2009	0	-1	1.11E-02	U	1.11E-02	3.30E-02	1.06E-02	6.12E-01		
B1 14-15'	122-66-7	SW8270C	11/11/2009	-14	-15	1.00E-02	U	9.95E-03	3.30E-02	1.06E-02	6.12E-01		
B10-1	122-66-7	SW8270C	9/2/2009	-2	-3	2.76E-02	U	2.76E-02	3.30E-01	1.06E-02	6.12E-01		
B10-1	122-66-7	SW8270C	9/2/2009	-2	-3	1.28E-02	U	1.28E-02	3.33E-02	1.06E-02	6.12E-01		
B10-2	122-66-7	SW8270C	9/2/2009	-13	-14	1.09E-02	U	1.09E-02	3.33E-02	1.06E-02	6.12E-01		
B10-2	122-66-7	SW8270C	9/2/2009	-13	-14	2.35E-02	U	2.35E-02	3.30E-01	1.06E-02	6.12E-01		
B2 1-1.5	122-66-7	SW8270C	9/1/2009	-1	-1.5	1.01E-02	U	1.01E-02	3.33E-02	1.06E-02	6.12E-01		
B2 1-1.5	122-66-7	SW8270C	9/1/2009	-1	-1.5	2.19E-02	U	2.19E-02	3.30E-01	1.06E-02	6.12E-01		
B2 21-22.5	122-66-7	SW8270C	9/1/2009	-21	-22.5	2.59E-02	U	2.59E-02	3.30E-01	1.06E-02	6.12E-01		
B2 21-22.5	122-66-7	SW8270C	9/1/2009	-21	-22.5	1.20E-02	U	1.20E-02	3.33E-02	1.06E-02	6.12E-01		
B3 12-13	122-66-7	SW8270C	8/31/2009	-12	-13	2.08E-02	U	2.08E-02	3.30E-01	1.06E-02	6.12E-01		
B3 12-13	122-66-7	SW8270C	8/31/2009	-12	-13	9.65E-03	U	9.65E-03	3.33E-02	1.06E-02	6.12E-01		
B3 2-3	122-66-7	SW8270C	8/31/2009	-2	-3	1.13E-02	U	1.13E-02	3.33E-02	1.06E-02	6.12E-01		
B3 2-3	122-66-7	SW8270C	8/31/2009	-2	-3	2.43E-02	U	2.43E-02	3.30E-01	1.06E-02	6.12E-01		
B4 14-14.5	122-66-7	SW8270C	9/1/2009	-14	-14.5	2.34E-02	U	2.34E-02	3.30E-01	1.06E-02	6.12E-01		
B4 14-14.5	122-66-7	SW8270C	9/1/2009	-14	-14.5	1.08E-02	U	1.08E-02	3.33E-02	1.06E-02	6.12E-01		
B4 2-2.5	122-66-7	SW8270C	9/1/2009	-2	-2.5	1.17E-02	U	1.17E-02	3.33E-02	1.06E-02	6.12E-01		
B4 2-2.5	122-66-7	SW8270C	9/1/2009	-2	-2.5	2.52E-02	U	2.52E-02	3.30E-01	1.06E-02	6.12E-01		
B5-1	122-66-7	SW8270C	9/2/2009	-1	-1.5	2.48E-02	U	2.48E-02	3.30E-01	1.06E-02	6.12E-01		
B5-1	122-66-7	SW8270C	9/2/2009	-1	-1.5	1.15E-02	U	1.15E-02	3.33E-02	1.06E-02	6.12E-01		
B5-2	122-66-7	SW8270C	9/2/2009	-14.5	-15	1.10E-02	U	1.10E-02	3.33E-02	1.06E-02	6.12E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,2-Diphenylhydrazine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B5-2	122-66-7	SW8270C	9/2/2009	-14.5	-15	2.36E-02	U	2.36E-02	3.30E-01	1.06E-02	6.12E-01		
B6-1	122-66-7	SW8270C	9/2/2009	-0.5	-1	1.06E-02	U	1.06E-02	3.33E-02	1.06E-02	6.12E-01		
B6-1	122-66-7	SW8270C	9/2/2009	-0.5	-1	2.29E-02	U	2.29E-02	3.30E-01	1.06E-02	6.12E-01		
B6-2	122-66-7	SW8270C	9/2/2009	-14.5	-15	1.10E-02	U	1.10E-02	3.33E-02	1.06E-02	6.12E-01		
B6-2	122-66-7	SW8270C	9/2/2009	-14.5	-15	2.36E-02	U	2.36E-02	3.30E-01	1.06E-02	6.12E-01		
B7 0-1'	122-66-7	SW8270C	11/11/2009	0	-1	1.02E-02	U	1.02E-02	3.30E-02	1.06E-02	6.12E-01		
B7 14-15'	122-66-7	SW8270C	11/11/2009	-14	-15	1.05E-02	U	1.05E-02	3.30E-02	1.06E-02	6.12E-01		
B8-1	122-66-7	SW8270C	9/2/2009	-1	-1.5	2.34E-02	U	2.34E-02	3.30E-01	1.06E-02	6.12E-01		
B8-1	122-66-7	SW8270C	9/2/2009	-1	-1.5	1.08E-02	U	1.08E-02	3.33E-02	1.06E-02	6.12E-01		
B8-2	122-66-7	SW8270C	9/2/2009	-14	-15	1.05E-02	U	1.05E-02	3.33E-02	1.06E-02	6.12E-01		
B8-2	122-66-7	SW8270C	9/2/2009	-14	-15	2.27E-02	U	2.27E-02	3.30E-01	1.06E-02	6.12E-01		
B9 0-1'	122-66-7	SW8270C	11/11/2009	0	-1	1.08E-02	U	1.08E-02	3.30E-02	1.06E-02	6.12E-01		
B9 14-15'	122-66-7	SW8270C	11/11/2009	-14	-15	1.05E-02	U	1.05E-02	3.30E-02	1.06E-02	6.12E-01		

1,3,5 Trinitrobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 1-2 FT	99-35-4	SW-846 83	8/31/2009	-1	-2	3.82E-01	U	3.82E-01	1.00E-01	1.10E+02	4.65E+03		
B1 13-14	99-35-4	SW-846 83	8/31/2009	-13	-14	3.82E-01	U	3.82E-01	1.00E-01	1.10E+02	4.65E+03		
B10 1 - 2	99-35-4	SW-846 83	9/2/2009	-1	-2	4.54E-01	U	4.54E-01	1.00E-01	1.10E+02	4.65E+03		
B10 11.5 - 1	99-35-4	SW-846 83	9/2/2009	-11.5	-12	4.69E-01	U	4.69E-01	1.00E-01	1.10E+02	4.65E+03		
B2 0.5-1.0	99-35-4	SW-846 83	9/1/2009	-0.5	-1	3.82E-01	U	3.82E-01	1.00E-01	1.10E+02	4.65E+03		
B2 21-21.5	99-35-4	SW-846 83	9/1/2009	-21	-21.5	3.82E-01	U	3.82E-01	1.00E-01	1.10E+02	4.65E+03		
B3 0-1	99-35-4	SW-846 83	8/31/2009	0	-1	3.82E-01	U	3.82E-01	1.00E-01	1.10E+02	4.65E+03		
B3 14-15	99-35-4	SW-846 83	8/31/2009	-14	-15	3.82E-01	U	3.82E-01	1.00E-01	1.10E+02	4.65E+03		
B4 13-14	99-35-4	SW-846 83	9/1/2009	-13	-14	3.82E-01	U	3.82E-01	1.00E-01	1.10E+02	4.65E+03		
B4 3-3.5	99-35-4	SW-846 83	9/1/2009	-3	-3.5	3.82E-01	U	3.82E-01	1.00E-01	1.10E+02	4.65E+03		
B5 14 - 14.	99-35-4	SW-846 83	9/2/2009	-14	-14.5	4.48E-01	U	4.48E-01	1.00E-01	1.10E+02	4.65E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,3,5 Trinitrobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B5 0.5 - 1 M	99-35-4	SW-846 83	9/2/2009	-0.5	-1	4.66E-01	U	4.66E-01	1.00E-01	1.10E+02	4.65E+03		
B6 1 - 1.5	99-35-4	SW-846 83	9/2/2009	-1	-1.5	4.49E-01	U	4.49E-01	1.00E-01	1.10E+02	4.65E+03		
B6 14 - 14.5	99-35-4	SW-846 83	9/2/2009	-14	-14.5	4.40E-01	U	4.40E-01	1.00E-01	1.10E+02	4.65E+03		
B7 0-1 FT	99-35-4	SW-846 83	8/31/2009	0	-1	3.82E-01	U	3.82E-01	1.00E-01	1.10E+02	4.65E+03		
B7 14-15	99-35-4	SW-846 83	8/31/2009	-14	-15	3.82E-01	U	3.82E-01	1.00E-01	1.10E+02	4.65E+03		
B8 13 - 14	99-35-4	SW-846 83	9/2/2009	-13	-14	4.34E-01	U	4.34E-01	1.00E-01	1.10E+02	4.65E+03		
B8 2.75 - 3	99-35-4	SW-846 83	9/2/2009	-2.75	-3	4.79E-01	U	4.79E-01	1.00E-01	1.10E+02	4.65E+03		
B9 14-15	99-35-4	SW-846 83	8/31/2009	-14	-15	3.82E-01	U	3.82E-01	1.00E-01	1.10E+02	4.65E+03		
B9-0-2 FT	99-35-4	SW-846 83	8/31/2009	0	-2	3.82E-01	U	3.82E-01	1.00E-01	1.10E+02	4.65E+03		

1,3,5-Trimethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	108-67-8	SW8260B	8/31/2009	0	-1	8.61E-04	U	8.60E-04	5.00E-03	1.83E+02	8.28E+01		
B1 0-1'	108-67-8	SW8260B	11/11/2009	0	-1	1.29E-03	U	1.29E-03	5.00E-03	1.83E+02	8.28E+01		
B1 14-15'	108-67-8	SW8260B	11/11/2009	-14	-15	9.38E-04	U	9.38E-04	5.00E-03	1.83E+02	8.28E+01		
B10-1	108-67-8	SW8260B	9/2/2009	-2	-3	1.03E-03	U	1.03E-03	5.00E-03	1.83E+02	8.28E+01		
B10-2	108-67-8	SW8260B	9/2/2009	-13	-14	8.74E-04	U	8.74E-04	5.00E-03	1.83E+02	8.28E+01		
B2 1-1.5	108-67-8	SW8260B	9/1/2009	-1	-1.5	8.13E-04	U	8.13E-04	5.00E-03	1.83E+02	8.28E+01		
B2 21-22.5	108-67-8	SW8260B	9/1/2009	-21	-22.5	9.62E-04	U	9.62E-04	5.00E-03	1.83E+02	8.28E+01		
B3 12-13	108-67-8	SW8260B	8/31/2009	-12	-13	7.74E-04	U	7.74E-04	5.00E-03	1.83E+02	8.28E+01		
B3 2-3	108-67-8	SW8260B	8/31/2009	-2	-3	9.05E-04	U	9.05E-04	5.00E-03	1.83E+02	8.28E+01		
B4 14.5-15	108-67-8	SW8260B	9/1/2009	-14.5	-15	8.79E-04	U	8.79E-04	5.00E-03	1.83E+02	8.28E+01		
B4 2-2.5	108-67-8	SW8260B	9/1/2009	-2	-2.5	9.38E-04	U	9.38E-04	5.00E-03	1.83E+02	8.28E+01		
B5-1	108-67-8	SW8260B	9/2/2009	-1	-1.5	9.23E-04	U	9.23E-04	5.00E-03	1.83E+02	8.28E+01		
B5-2	108-67-8	SW8260B	9/2/2009	-14.5	-15	8.79E-04	U	8.79E-04	5.00E-03	1.83E+02	8.28E+01		
B6-1	108-67-8	SW8260B	9/2/2009	-0.5	-1	8.52E-04	U	8.53E-04	5.00E-03	1.83E+02	8.28E+01		
B6-2	108-67-8	SW8260B	9/2/2009	-14.5	-15	8.79E-04	U	8.79E-04	5.00E-03	1.83E+02	8.28E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,3,5-Trimethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 0-1'	108-67-8	SW8260B	11/11/2009	0	-1	1.01E-03	U	1.01E-03	5.00E-03	1.83E+02	8.28E+01		
B7 14-15'	108-67-8	SW8260B	11/11/2009	-14	-15	1.11E-03	U	1.11E-03	5.00E-03	1.83E+02	8.28E+01		
B8-1	108-67-8	SW8260B	9/2/2009	-1	-1.5	8.70E-04	U	8.70E-04	5.00E-03	1.83E+02	8.28E+01		
B8-2	108-67-8	SW8260B	9/2/2009	-14	-15	8.46E-04	U	8.46E-04	5.00E-03	1.83E+02	8.28E+01		
B8-3	108-67-8	SW8260B	9/2/2009	-8	-8.5	9.17E-04	U	9.17E-04	5.00E-03	1.83E+02	8.28E+01		
B9 0-1'	108-67-8	SW8260B	11/11/2009	0	-1	1.20E-03	U	1.20E-03	5.00E-03	1.83E+02	8.28E+01		
B9 14-15'	108-67-8	SW8260B	11/11/2009	-14	-15	1.09E-03	U	1.09E-03	5.00E-03	1.83E+02	8.28E+01		

1,3-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	541-73-1	SW8270C	8/31/2009	0	-1	8.12E-02	U	8.12E-02	3.30E-01	1.10E+02	5.05E+01		
B1 0-1	541-73-1	SW8260B	8/31/2009	0	-1	9.10E-04	U	9.10E-04	5.00E-03	1.10E+02	5.05E+01		
B1 0-1'	541-73-1	SW8260B	11/11/2009	0	-1	1.36E-03	U	1.36E-03	5.00E-03	1.10E+02	5.05E+01		
B1 0-1'	541-73-1	SW8270C	11/11/2009	0	-1	8.39E-02	U	8.39E-02	3.30E-01	1.10E+02	5.05E+01		
B1 14-15'	541-73-1	SW8260B	11/11/2009	-14	-15	9.91E-04	U	9.91E-04	5.00E-03	1.10E+02	5.05E+01		
B1 14-15'	541-73-1	SW8270C	11/11/2009	-14	-15	7.55E-02	U	7.55E-02	3.30E-01	1.10E+02	5.05E+01		
B10-1	541-73-1	SW8270C	9/2/2009	-2	-3	9.68E-02	U	9.68E-02	3.30E-01	1.10E+02	5.05E+01		
B10-1	541-73-1	SW8260B	9/2/2009	-2	-3	1.09E-03	U	1.09E-03	5.00E-03	1.10E+02	5.05E+01		
B10-2	541-73-1	SW8270C	9/2/2009	-13	-14	8.24E-02	U	8.24E-02	3.30E-01	1.10E+02	5.05E+01		
B10-2	541-73-1	SW8260B	9/2/2009	-13	-14	9.24E-04	U	9.24E-04	5.00E-03	1.10E+02	5.05E+01		
B2 1-1.5	541-73-1	SW8260B	9/1/2009	-1	-1.5	8.60E-04	U	8.60E-04	5.00E-03	1.10E+02	5.05E+01		
B2 1-1.5	541-73-1	SW8270C	9/1/2009	-1	-1.5	7.67E-02	U	7.67E-02	3.30E-01	1.10E+02	5.05E+01		
B2 21-22.5	541-73-1	SW8260B	9/1/2009	-21	-22.5	1.02E-03	U	1.02E-03	5.00E-03	1.10E+02	5.05E+01		
B2 21-22.5	541-73-1	SW8270C	9/1/2009	-21	-22.5	9.08E-02	U	9.08E-02	3.30E-01	1.10E+02	5.05E+01		
B3 12-13	541-73-1	SW8260B	8/31/2009	-12	-13	8.19E-04	U	8.19E-04	5.00E-03	1.10E+02	5.05E+01		
B3 12-13	541-73-1	SW8270C	8/31/2009	-12	-13	7.30E-02	U	7.30E-02	3.30E-01	1.10E+02	5.05E+01		
B3 2-3	541-73-1	SW8270C	8/31/2009	-2	-3	8.53E-02	U	8.53E-02	3.30E-01	1.10E+02	5.05E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,3-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 2-3	541-73-1	SW8260B	8/31/2009	-2	-3	9.57E-04	U	9.57E-04	5.00E-03	1.10E+02	5.05E+01		
B4 14.5-15	541-73-1	SW8260B	9/1/2009	-14.5	-15	9.30E-04	U	9.30E-04	5.00E-03	1.10E+02	5.05E+01		
B4 14-14.5	541-73-1	SW8270C	9/1/2009	-14	-14.5	8.19E-02	U	8.19E-02	3.30E-01	1.10E+02	5.05E+01		
B4 2-2.5	541-73-1	SW8270C	9/1/2009	-2	-2.5	8.85E-02	U	8.85E-02	3.30E-01	1.10E+02	5.05E+01		
B4 2-2.5	541-73-1	SW8260B	9/1/2009	-2	-2.5	9.92E-04	U	9.92E-04	5.00E-03	1.10E+02	5.05E+01		
B5-1	541-73-1	SW8270C	9/2/2009	-1	-1.5	8.70E-02	U	8.70E-02	3.30E-01	1.10E+02	5.05E+01		
B5-1	541-73-1	SW8260B	9/2/2009	-1	-1.5	9.76E-04	U	9.76E-04	5.00E-03	1.10E+02	5.05E+01		
B5-2	541-73-1	SW8260B	9/2/2009	-14.5	-15	9.30E-04	U	9.30E-04	5.00E-03	1.10E+02	5.05E+01		
B5-2	541-73-1	SW8270C	9/2/2009	-14.5	-15	8.29E-02	U	8.29E-02	3.30E-01	1.10E+02	5.05E+01		
B6-1	541-73-1	SW8260B	9/2/2009	-0.5	-1	9.02E-04	U	9.02E-04	5.00E-03	1.10E+02	5.05E+01		
B6-1	541-73-1	SW8270C	9/2/2009	-0.5	-1	8.04E-02	U	8.04E-02	3.30E-01	1.10E+02	5.05E+01		
B6-2	541-73-1	SW8260B	9/2/2009	-14.5	-15	9.30E-04	U	9.30E-04	5.00E-03	1.10E+02	5.05E+01		
B6-2	541-73-1	SW8270C	9/2/2009	-14.5	-15	8.29E-02	U	8.29E-02	3.30E-01	1.10E+02	5.05E+01		
B7 0-1'	541-73-1	SW8260B	11/11/2009	0	-1	1.07E-03	U	1.07E-03	5.00E-03	1.10E+02	5.05E+01		
B7 0-1'	541-73-1	SW8270C	11/11/2009	0	-1	7.75E-02	U	7.75E-02	3.30E-01	1.10E+02	5.05E+01		
B7 14-15'	541-73-1	SW8270C	11/11/2009	-14	-15	7.99E-02	U	7.99E-02	3.30E-01	1.10E+02	5.05E+01		
B7 14-15'	541-73-1	SW8260B	11/11/2009	-14	-15	1.18E-03	U	1.18E-03	5.00E-03	1.10E+02	5.05E+01		
B8-1	541-73-1	SW8270C	9/2/2009	-1	-1.5	8.20E-02	U	8.20E-02	3.30E-01	1.10E+02	5.05E+01		
B8-1	541-73-1	SW8260B	9/2/2009	-1	-1.5	9.20E-04	U	9.20E-04	5.00E-03	1.10E+02	5.05E+01		
B8-2	541-73-1	SW8260B	9/2/2009	-14	-15	8.95E-04	U	8.95E-04	5.00E-03	1.10E+02	5.05E+01		
B8-2	541-73-1	SW8270C	9/2/2009	-14	-15	7.98E-02	U	7.98E-02	3.30E-01	1.10E+02	5.05E+01		
B8-3	541-73-1	SW8260B	9/2/2009	-8	-8.5	9.70E-04	U	9.70E-04	5.00E-03	1.10E+02	5.05E+01		
B9 0-1'	541-73-1	SW8260B	11/11/2009	0	-1	1.27E-03	U	1.27E-03	5.00E-03	1.10E+02	5.05E+01		
B9 0-1'	541-73-1	SW8270C	11/11/2009	0	-1	8.18E-02	U	8.18E-02	3.30E-01	1.10E+02	5.05E+01		
B9 14-15'	541-73-1	SW8260B	11/11/2009	-14	-15	1.16E-03	U	1.16E-03	5.00E-03	1.10E+02	5.05E+01		
B9 14-15'	541-73-1	SW8270C	11/11/2009	-14	-15	7.95E-02	U	7.95E-02	3.30E-01	1.10E+02	5.05E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,3-Dichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	142-28-9	SW8260B	8/31/2009	0	-1	6.76E-04	U	6.76E-04	5.00E-03	8.52E-01	2.98E+01		
B1 0-1'	142-28-9	SW8260B	11/11/2009	0	-1	1.01E-03	U	1.01E-03	5.00E-03	8.52E-01	2.98E+01		
B1 14-15'	142-28-9	SW8260B	11/11/2009	-14	-15	7.37E-04	U	7.37E-04	5.00E-03	8.52E-01	2.98E+01		
B10-1	142-28-9	SW8260B	9/2/2009	-2	-3	8.06E-04	U	8.06E-04	5.00E-03	8.52E-01	2.98E+01		
B10-2	142-28-9	SW8260B	9/2/2009	-13	-14	6.86E-04	U	6.86E-04	5.00E-03	8.52E-01	2.98E+01		
B2 1-1.5	142-28-9	SW8260B	9/1/2009	-1	-1.5	6.38E-04	U	6.38E-04	5.00E-03	8.52E-01	2.98E+01		
B2 21-22.5	142-28-9	SW8260B	9/1/2009	-21	-22.5	7.55E-04	U	7.56E-04	5.00E-03	8.52E-01	2.98E+01		
B3 12-13	142-28-9	SW8260B	8/31/2009	-12	-13	6.07E-04	U	6.08E-04	5.00E-03	8.52E-01	2.98E+01		
B3 2-3	142-28-9	SW8260B	8/31/2009	-2	-3	7.10E-04	U	7.10E-04	5.00E-03	8.52E-01	2.98E+01		
B4 14.5-15	142-28-9	SW8260B	9/1/2009	-14.5	-15	6.90E-04	U	6.90E-04	5.00E-03	8.52E-01	2.98E+01		
B4 2-2.5	142-28-9	SW8260B	9/1/2009	-2	-2.5	7.36E-04	U	7.36E-04	5.00E-03	8.52E-01	2.98E+01		
B5-1	142-28-9	SW8260B	9/2/2009	-1	-1.5	7.24E-04	U	7.24E-04	5.00E-03	8.52E-01	2.98E+01		
B5-2	142-28-9	SW8260B	9/2/2009	-14.5	-15	6.90E-04	U	6.90E-04	5.00E-03	8.52E-01	2.98E+01		
B6-1	142-28-9	SW8260B	9/2/2009	-0.5	-1	6.69E-04	U	6.69E-04	5.00E-03	8.52E-01	2.98E+01		
B6-2	142-28-9	SW8260B	9/2/2009	-14.5	-15	6.90E-04	U	6.90E-04	5.00E-03	8.52E-01	2.98E+01		
B7 0-1'	142-28-9	SW8260B	11/11/2009	0	-1	7.95E-04	U	7.95E-04	5.00E-03	8.52E-01	2.98E+01		
B7 14-15'	142-28-9	SW8260B	11/11/2009	-14	-15	8.71E-04	U	8.71E-04	5.00E-03	8.52E-01	2.98E+01		
B8-1	142-28-9	SW8260B	9/2/2009	-1	-1.5	6.83E-04	U	6.83E-04	5.00E-03	8.52E-01	2.98E+01		
B8-2	142-28-9	SW8260B	9/2/2009	-14	-15	6.64E-04	U	6.64E-04	5.00E-03	8.52E-01	2.98E+01		
B8-3	142-28-9	SW8260B	9/2/2009	-8	-8.5	7.20E-04	U	7.20E-04	5.00E-03	8.52E-01	2.98E+01		
B9 0-1'	142-28-9	SW8260B	11/11/2009	0	-1	9.36E-04	U	9.36E-04	5.00E-03	8.52E-01	2.98E+01		
B9 14-15'	142-28-9	SW8260B	11/11/2009	-14	-15	8.59E-04	U	8.59E-04	5.00E-03	8.52E-01	2.98E+01		

1,3-Dinitrobenzene (DNB)

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 1-2 FT	99-65-0	SW-846 83	8/31/2009	-1	-2	4.91E-01	U	4.91E-01	1.00E-01	3.65E-01	1.55E+01		
B1 13-14	99-65-0	SW-846 83	8/31/2009	-13	-14	4.91E-01	U	4.91E-01	1.00E-01	3.65E-01	1.55E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,3-Dinitrobenzene (DNB)

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10 1 - 2	99-65-0	SW-846 83	9/2/2009	-1	-2	5.83E-01	U	5.83E-01	1.00E-01	3.65E-01	1.55E+01		
B10 11.5 - 1	99-65-0	SW-846 83	9/2/2009	-11.5	-12	6.03E-01	U	6.03E-01	1.00E-01	3.65E-01	1.55E+01		
B2 0.5-1.0	99-65-0	SW-846 83	9/1/2009	-0.5	-1	4.91E-01	U	4.91E-01	1.00E-01	3.65E-01	1.55E+01		
B2 21-21.5	99-65-0	SW-846 83	9/1/2009	-21	-21.5	4.91E-01	U	4.91E-01	1.00E-01	3.65E-01	1.55E+01		
B3 0-1	99-65-0	SW-846 83	8/31/2009	0	-1	4.91E-01	U	4.91E-01	1.00E-01	3.65E-01	1.55E+01		
B3 14-15	99-65-0	SW-846 83	8/31/2009	-14	-15	4.91E-01	U	4.91E-01	1.00E-01	3.65E-01	1.55E+01		
B4 13-14	99-65-0	SW-846 83	9/1/2009	-13	-14	4.91E-01	U	4.91E-01	1.00E-01	3.65E-01	1.55E+01		
B4 3-3.5	99-65-0	SW-846 83	9/1/2009	-3	-3.5	4.91E-01	U	4.91E-01	1.00E-01	3.65E-01	1.55E+01		
B5 14 - 14.	99-65-0	SW-846 83	9/2/2009	-14	-14.5	5.76E-01	U	5.76E-01	1.00E-01	3.65E-01	1.55E+01		
B5 0.5 - 1 M	99-65-0	SW-846 83	9/2/2009	-0.5	-1	6.00E-01	U	6.00E-01	1.00E-01	3.65E-01	1.55E+01		
B6 1 - 1.5	99-65-0	SW-846 83	9/2/2009	-1	-1.5	5.78E-01	U	5.78E-01	1.00E-01	3.65E-01	1.55E+01		
B6 14 - 14.5	99-65-0	SW-846 83	9/2/2009	-14	-14.5	5.65E-01	U	5.65E-01	1.00E-01	3.65E-01	1.55E+01		
B7 0-1 FT	99-65-0	SW-846 83	8/31/2009	0	-1	4.91E-01	U	4.91E-01	1.00E-01	3.65E-01	1.55E+01		
B7 14-15	99-65-0	SW-846 83	8/31/2009	-14	-15	4.91E-01	U	4.91E-01	1.00E-01	3.65E-01	1.55E+01		
B8 13 - 14	99-65-0	SW-846 83	9/2/2009	-13	-14	5.57E-01	U	5.57E-01	1.00E-01	3.65E-01	1.55E+01		
B8 2.75 - 3	99-65-0	SW-846 83	9/2/2009	-2.75	-3	6.16E-01	U	6.16E-01	1.00E-01	3.65E-01	1.55E+01		
B9 14-15	99-65-0	SW-846 83	8/31/2009	-14	-15	4.91E-01	U	4.91E-01	1.00E-01	3.65E-01	1.55E+01		
B9-0-2 FT	99-65-0	SW-846 83	8/31/2009	0	-2	4.91E-01	U	4.91E-01	1.00E-01	3.65E-01	1.55E+01		

1,4-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	106-46-7	SW8270C	8/31/2009	0	-1	7.44E-02	U	7.44E-02	3.30E-01	7.50E+00	2.67E+02		
B1 0-1	106-46-7	SW8260B	8/31/2009	0	-1	7.37E-04	U	7.37E-04	5.00E-03	7.50E+00	2.67E+02		
B1 0-1'	106-46-7	SW8260B	11/11/2009	0	-1	1.10E-03	U	1.10E-03	5.00E-03	7.50E+00	2.67E+02		
B1 0-1'	106-46-7	SW8270C	11/11/2009	0	-1	7.69E-02	U	7.69E-02	3.30E-01	7.50E+00	2.67E+02		
B1 14-15'	106-46-7	SW8260B	11/11/2009	-14	-15	8.03E-04	U	8.03E-04	5.00E-03	7.50E+00	2.67E+02		
B1 14-15'	106-46-7	SW8270C	11/11/2009	-14	-15	6.92E-02	U	6.92E-02	3.30E-01	7.50E+00	2.67E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,4-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-1	106-46-7	SW8270C	9/2/2009	-2	-3	8.88E-02	U	8.88E-02	3.30E-01	7.50E+00	2.67E+02		
B10-1	106-46-7	SW8260B	9/2/2009	-2	-3	8.79E-04	U	8.79E-04	5.00E-03	7.50E+00	2.67E+02		
B10-2	106-46-7	SW8260B	9/2/2009	-13	-14	7.49E-04	U	7.49E-04	5.00E-03	7.50E+00	2.67E+02		
B10-2	106-46-7	SW8270C	9/2/2009	-13	-14	7.56E-02	U	7.56E-02	3.30E-01	7.50E+00	2.67E+02		
B2 1-1.5	106-46-7	SW8260B	9/1/2009	-1	-1.5	6.97E-04	U	6.97E-04	5.00E-03	7.50E+00	2.67E+02		
B2 1-1.5	106-46-7	SW8270C	9/1/2009	-1	-1.5	7.03E-02	U	7.03E-02	3.30E-01	7.50E+00	2.67E+02		
B2 21-22.5	106-46-7	SW8260B	9/1/2009	-21	-22.5	8.24E-04	U	8.24E-04	5.00E-03	7.50E+00	2.67E+02		
B2 21-22.5	106-46-7	SW8270C	9/1/2009	-21	-22.5	8.32E-02	U	8.32E-02	3.30E-01	7.50E+00	2.67E+02		
B3 12-13	106-46-7	SW8260B	8/31/2009	-12	-13	6.63E-04	U	6.63E-04	5.00E-03	7.50E+00	2.67E+02		
B3 12-13	106-46-7	SW8270C	8/31/2009	-12	-13	6.69E-02	U	6.69E-02	3.30E-01	7.50E+00	2.67E+02		
B3 2-3	106-46-7	SW8270C	8/31/2009	-2	-3	7.82E-02	U	7.82E-02	3.30E-01	7.50E+00	2.67E+02		
B3 2-3	106-46-7	SW8260B	8/31/2009	-2	-3	7.75E-04	U	7.75E-04	5.00E-03	7.50E+00	2.67E+02		
B4 14.5-15	106-46-7	SW8260B	9/1/2009	-14.5	-15	7.53E-04	U	7.53E-04	5.00E-03	7.50E+00	2.67E+02		
B4 14-14.5	106-46-7	SW8270C	9/1/2009	-14	-14.5	7.51E-02	U	7.51E-02	3.30E-01	7.50E+00	2.67E+02		
B4 2-2.5	106-46-7	SW8260B	9/1/2009	-2	-2.5	8.03E-04	U	8.04E-04	5.00E-03	7.50E+00	2.67E+02		
B4 2-2.5	106-46-7	SW8270C	9/1/2009	-2	-2.5	8.11E-02	U	8.11E-02	3.30E-01	7.50E+00	2.67E+02		
B5-1	106-46-7	SW8270C	9/2/2009	-1	-1.5	7.98E-02	U	7.98E-02	3.30E-01	7.50E+00	2.67E+02		
B5-1	106-46-7	SW8260B	9/2/2009	-1	-1.5	7.90E-04	U	7.91E-04	5.00E-03	7.50E+00	2.67E+02		
B5-2	106-46-7	SW8270C	9/2/2009	-14.5	-15	7.60E-02	U	7.60E-02	3.30E-01	7.50E+00	2.67E+02		
B5-2	106-46-7	SW8260B	9/2/2009	-14.5	-15	7.53E-04	U	7.53E-04	5.00E-03	7.50E+00	2.67E+02		
B6-1	106-46-7	SW8260B	9/2/2009	-0.5	-1	7.30E-04	U	7.30E-04	5.00E-03	7.50E+00	2.67E+02		
B6-1	106-46-7	SW8270C	9/2/2009	-0.5	-1	7.37E-02	U	7.37E-02	3.30E-01	7.50E+00	2.67E+02		
B6-2	106-46-7	SW8260B	9/2/2009	-14.5	-15	7.53E-04	U	7.53E-04	5.00E-03	7.50E+00	2.67E+02		
B6-2	106-46-7	SW8270C	9/2/2009	-14.5	-15	7.60E-02	U	7.60E-02	3.30E-01	7.50E+00	2.67E+02		
B7 0-1'	106-46-7	SW8260B	11/11/2009	0	-1	8.68E-04	U	8.68E-04	5.00E-03	7.50E+00	2.67E+02		
B7 0-1'	106-46-7	SW8270C	11/11/2009	0	-1	7.10E-02	U	7.10E-02	3.30E-01	7.50E+00	2.67E+02		
B7 14-15'	106-46-7	SW8270C	11/11/2009	-14	-15	7.32E-02	U	7.32E-02	3.30E-01	7.50E+00	2.67E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1,4-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 14-15'	106-46-7	SW8260B	11/11/2009	-14	-15	9.50E-04	U	9.50E-04	5.00E-03	7.50E+00	2.67E+02		
B8-1	106-46-7	SW8270C	9/2/2009	-1	-1.5	7.52E-02	U	7.52E-02	3.30E-01	7.50E+00	2.67E+02		
B8-1	106-46-7	SW8260B	9/2/2009	-1	-1.5	7.45E-04	U	7.45E-04	5.00E-03	7.50E+00	2.67E+02		
B8-2	106-46-7	SW8260B	9/2/2009	-14	-15	7.25E-04	U	7.25E-04	5.00E-03	7.50E+00	2.67E+02		
B8-2	106-46-7	SW8270C	9/2/2009	-14	-15	7.31E-02	U	7.31E-02	3.30E-01	7.50E+00	2.67E+02		
B8-3	106-46-7	SW8260B	9/2/2009	-8	-8.5	7.86E-04	U	7.86E-04	5.00E-03	7.50E+00	2.67E+02		
B9 0-1'	106-46-7	SW8260B	11/11/2009	0	-1	1.02E-03	U	1.02E-03	5.00E-03	7.50E+00	2.67E+02		
B9 0-1'	106-46-7	SW8270C	11/11/2009	0	-1	7.50E-02	U	7.50E-02	3.30E-01	7.50E+00	2.67E+02		
B9 14-15'	106-46-7	SW8270C	11/11/2009	-14	-15	7.29E-02	U	7.29E-02	3.30E-01	7.50E+00	2.67E+02		
B9 14-15'	106-46-7	SW8260B	11/11/2009	-14	-15	9.36E-04	U	9.36E-04	5.00E-03	7.50E+00	2.67E+02		

1-Chlorohexane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	544-10-5	SW8260B	8/31/2009	0	-1	4.92E-04	U	4.92E-04	5.00E-03	1.46E+02	4.15E+03		
B1 0-1'	544-10-5	SW8260B	11/11/2009	0	-1	7.34E-04	U	7.34E-04	5.00E-03	1.46E+02	4.15E+03		
B1 14-15'	544-10-5	SW8260B	11/11/2009	-14	-15	5.37E-04	U	5.37E-04	5.00E-03	1.46E+02	4.15E+03		
B10-1	544-10-5	SW8260B	9/2/2009	-2	-3	5.87E-04	U	5.87E-04	5.00E-03	1.46E+02	4.15E+03		
B10-2	544-10-5	SW8260B	9/2/2009	-13	-14	4.99E-04	U	4.99E-04	5.00E-03	1.46E+02	4.15E+03		
B2 1-1.5	544-10-5	SW8260B	9/1/2009	-1	-1.5	4.65E-04	U	4.65E-04	5.00E-03	1.46E+02	4.15E+03		
B2 21-22.5	544-10-5	SW8260B	9/1/2009	-21	-22.5	5.50E-04	U	5.50E-04	5.00E-03	1.46E+02	4.15E+03		
B3 12-13	544-10-5	SW8260B	8/31/2009	-12	-13	4.42E-04	U	4.42E-04	5.00E-03	1.46E+02	4.15E+03		
B3 2-3	544-10-5	SW8260B	8/31/2009	-2	-3	5.17E-04	U	5.17E-04	5.00E-03	1.46E+02	4.15E+03		
B4 14.5-15	544-10-5	SW8260B	9/1/2009	-14.5	-15	5.02E-04	U	5.02E-04	5.00E-03	1.46E+02	4.15E+03		
B4 2-2.5	544-10-5	SW8260B	9/1/2009	-2	-2.5	5.36E-04	U	5.36E-04	5.00E-03	1.46E+02	4.15E+03		
B5-1	544-10-5	SW8260B	9/2/2009	-1	-1.5	5.27E-04	U	5.27E-04	5.00E-03	1.46E+02	4.15E+03		
B5-2	544-10-5	SW8260B	9/2/2009	-14.5	-15	5.02E-04	U	5.02E-04	5.00E-03	1.46E+02	4.15E+03		
B6-1	544-10-5	SW8260B	9/2/2009	-0.5	-1	4.87E-04	U	4.87E-04	5.00E-03	1.46E+02	4.15E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

1-Chlorohexane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B6-2	544-10-5	SW8260B	9/2/2009	-14.5	-15	5.02E-04	U	5.02E-04	5.00E-03	1.46E+02	4.15E+03		
B7 0-1'	544-10-5	SW8260B	11/11/2009	0	-1	5.80E-04	U	5.79E-04	5.00E-03	1.46E+02	4.15E+03		
B7 14-15'	544-10-5	SW8260B	11/11/2009	-14	-15	6.34E-04	U	6.34E-04	5.00E-03	1.46E+02	4.15E+03		
B8-1	544-10-5	SW8260B	9/2/2009	-1	-1.5	4.97E-04	U	4.97E-04	5.00E-03	1.46E+02	4.15E+03		
B8-2	544-10-5	SW8260B	9/2/2009	-14	-15	4.83E-04	U	4.83E-04	5.00E-03	1.46E+02	4.15E+03		
B8-3	544-10-5	SW8260B	9/2/2009	-8	-8.5	5.24E-04	U	5.24E-04	5.00E-03	1.46E+02	4.15E+03		
B9 0-1'	544-10-5	SW8260B	11/11/2009	0	-1	6.81E-04	U	6.81E-04	5.00E-03	1.46E+02	4.15E+03		
B9 14-15'	544-10-5	SW8260B	11/11/2009	-14	-15	6.25E-04	U	6.25E-04	5.00E-03	1.46E+02	4.15E+03		

2,2-Dichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	594-20-7	SW8260B	8/31/2009	0	-1	9.26E-04	U	9.26E-04	5.00E-03	1.25E+00	1.70E+01		
B1 0-1'	590-20-7	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	5.00E-03				
B1 14-15'	590-20-7	SW8260B	11/11/2009	-14	-15	1.01E-03	U	1.01E-03	5.00E-03				
B10-1	594-20-7	SW8260B	9/2/2009	-2	-3	1.10E-03	U	1.10E-03	5.00E-03	1.25E+00	1.70E+01		
B10-2	594-20-7	SW8260B	9/2/2009	-13	-14	9.40E-04	U	9.40E-04	5.00E-03	1.25E+00	1.70E+01		
B2 1-1.5	594-20-7	SW8260B	9/1/2009	-1	-1.5	8.75E-04	U	8.75E-04	5.00E-03	1.25E+00	1.70E+01		
B2 21-22.5	594-20-7	SW8260B	9/1/2009	-21	-22.5	1.04E-03	U	1.04E-03	5.00E-03	1.25E+00	1.70E+01		
B3 12-13	594-20-7	SW8260B	8/31/2009	-12	-13	8.32E-04	U	8.32E-04	5.00E-03	1.25E+00	1.70E+01		
B3 2-3	594-20-7	SW8260B	8/31/2009	-2	-3	9.73E-04	U	9.73E-04	5.00E-03	1.25E+00	1.70E+01		
B4 14.5-15	594-20-7	SW8260B	9/1/2009	-14.5	-15	9.45E-04	U	9.45E-04	5.00E-03	1.25E+00	1.70E+01		
B4 2-2.5	594-20-7	SW8260B	9/1/2009	-2	-2.5	1.01E-03	U	1.01E-03	5.00E-03	1.25E+00	1.70E+01		
B5-1	594-20-7	SW8260B	9/2/2009	-1	-1.5	9.92E-04	U	9.93E-04	5.00E-03	1.25E+00	1.70E+01		
B5-2	594-20-7	SW8260B	9/2/2009	-14.5	-15	9.45E-04	U	9.45E-04	5.00E-03	1.25E+00	1.70E+01		
B6-1	594-20-7	SW8260B	9/2/2009	-0.5	-1	9.17E-04	U	9.17E-04	5.00E-03	1.25E+00	1.70E+01		
B6-2	594-20-7	SW8260B	9/2/2009	-14.5	-15	9.45E-04	U	9.45E-04	5.00E-03	1.25E+00	1.70E+01		
B7 0-1'	590-20-7	SW8260B	11/11/2009	0	-1	1.09E-03	U	1.09E-03	5.00E-03				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2,2-Dichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 14-15'	590-20-7	SW8260B	11/11/2009	-14	-15	1.19E-03	U	1.19E-03	5.00E-03				
B8-1	594-20-7	SW8260B	9/2/2009	-1	-1.5	9.35E-04	U	9.35E-04	5.00E-03	1.25E+00	1.70E+01		
B8-2	594-20-7	SW8260B	9/2/2009	-14	-15	9.10E-04	U	9.10E-04	5.00E-03	1.25E+00	1.70E+01		
B8-3	594-20-7	SW8260B	9/2/2009	-8	-8.5	9.86E-04	U	9.86E-04	5.00E-03	1.25E+00	1.70E+01		
B9 0-1'	590-20-7	SW8260B	11/11/2009	0	-1	1.28E-03	U	1.28E-03	5.00E-03				
B9 14-15'	590-20-7	SW8260B	11/11/2009	-14	-15	1.17E-03	U	1.17E-03	5.00E-03				

2,3,4,6-Tetrachlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	58-90-2	SW8270C	8/31/2009	0	-1	1.98E-01	U	1.98E-01	3.30E-01	1.10E+02	4.65E+03		
B1 0-1'	58-90-2	SW8270C	11/11/2009	0	-1	2.04E-01	U	2.04E-01	3.30E-01	1.10E+02	4.65E+03		
B1 14-15'	58-90-2	SW8270C	11/11/2009	-14	-15	1.84E-01	U	1.84E-01	3.30E-01	1.10E+02	4.65E+03		
B10-1	58-90-2	SW8270C	9/2/2009	-2	-3	2.36E-01	U	2.36E-01	3.30E-01	1.10E+02	4.65E+03		
B10-2	58-90-2	SW8270C	9/2/2009	-13	-14	2.01E-01	U	2.01E-01	3.30E-01	1.10E+02	4.65E+03		
B2 1-1.5	58-90-2	SW8270C	9/1/2009	-1	-1.5	1.87E-01	U	1.87E-01	3.30E-01	1.10E+02	4.65E+03		
B2 21-22.5	58-90-2	SW8270C	9/1/2009	-21	-22.5	2.21E-01	U	2.21E-01	3.30E-01	1.10E+02	4.65E+03		
B3 12-13	58-90-2	SW8270C	8/31/2009	-12	-13	1.78E-01	U	1.78E-01	3.30E-01	1.10E+02	4.65E+03		
B3 2-3	58-90-2	SW8270C	8/31/2009	-2	-3	2.08E-01	U	2.08E-01	3.30E-01	1.10E+02	4.65E+03		
B4 14-14.5	58-90-2	SW8270C	9/1/2009	-14	-14.5	2.00E-01	U	2.00E-01	3.30E-01	1.10E+02	4.65E+03		
B4 2-2.5	58-90-2	SW8270C	9/1/2009	-2	-2.5	2.16E-01	U	2.15E-01	3.30E-01	1.10E+02	4.65E+03		
B5-1	58-90-2	SW8270C	9/2/2009	-1	-1.5	2.12E-01	U	2.12E-01	3.30E-01	1.10E+02	4.65E+03		
B5-2	58-90-2	SW8270C	9/2/2009	-14.5	-15	2.02E-01	U	2.02E-01	3.30E-01	1.10E+02	4.65E+03		
B6-1	58-90-2	SW8270C	9/2/2009	-0.5	-1	1.96E-01	U	1.96E-01	3.30E-01	1.10E+02	4.65E+03		
B6-2	58-90-2	SW8270C	9/2/2009	-14.5	-15	2.02E-01	U	2.02E-01	3.30E-01	1.10E+02	4.65E+03		
B7 0-1'	58-90-2	SW8270C	11/11/2009	0	-1	1.89E-01	U	1.89E-01	3.30E-01	1.10E+02	4.65E+03		
B7 14-15'	58-90-2	SW8270C	11/11/2009	-14	-15	1.95E-01	U	1.95E-01	3.30E-01	1.10E+02	4.65E+03		
B8-1	58-90-2	SW8270C	9/2/2009	-1	-1.5	2.00E-01	U	2.00E-01	3.30E-01	1.10E+02	4.65E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2,3,4,6-Tetrachlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-2	58-90-2	SW8270C	9/2/2009	-14	-15	1.94E-01	U	1.94E-01	3.30E-01	1.10E+02	4.65E+03		
B9 0-1'	58-90-2	SW8270C	11/11/2009	0	-1	1.99E-01	U	1.99E-01	3.30E-01	1.10E+02	4.65E+03		
B9 14-15'	58-90-2	SW8270C	11/11/2009	-14	-15	1.94E-01	U	1.94E-01	3.30E-01	1.10E+02	4.65E+03		

2,4,5-Trichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	95-95-4	SW8270C	8/31/2009	0	-1	2.24E-02	U	2.24E-02	3.30E-01	3.65E+02	1.55E+04		
B1 0-1'	95-95-4	SW8270C	11/11/2009	0	-1	2.32E-02	U	2.32E-02	3.30E-01	3.65E+02	1.55E+04		
B1 14-15'	95-95-4	SW8270C	11/11/2009	-14	-15	2.09E-02	U	2.09E-02	3.30E-01	3.65E+02	1.55E+04		
B10-1	95-95-4	SW8270C	9/2/2009	-2	-3	2.68E-02	U	2.68E-02	3.30E-01	3.65E+02	1.55E+04		
B10-2	95-95-4	SW8270C	9/2/2009	-13	-14	2.28E-02	U	2.28E-02	3.30E-01	3.65E+02	1.55E+04		
B2 1-1.5	95-95-4	SW8270C	9/1/2009	-1	-1.5	2.12E-02	U	2.12E-02	3.30E-01	3.65E+02	1.55E+04		
B2 21-22.5	95-95-4	SW8270C	9/1/2009	-21	-22.5	2.51E-02	U	2.51E-02	3.30E-01	3.65E+02	1.55E+04		
B3 12-13	95-95-4	SW8270C	8/31/2009	-12	-13	2.02E-02	U	2.02E-02	3.30E-01	3.65E+02	1.55E+04		
B3 2-3	95-95-4	SW8270C	8/31/2009	-2	-3	2.36E-02	U	2.36E-02	3.30E-01	3.65E+02	1.55E+04		
B4 14-14.5	95-95-4	SW8270C	9/1/2009	-14	-14.5	2.27E-02	U	2.27E-02	3.30E-01	3.65E+02	1.55E+04		
B4 2-2.5	95-95-4	SW8270C	9/1/2009	-2	-2.5	2.45E-02	U	2.45E-02	3.30E-01	3.65E+02	1.55E+04		
B5-1	95-95-4	SW8270C	9/2/2009	-1	-1.5	2.41E-02	U	2.41E-02	3.30E-01	3.65E+02	1.55E+04		
B5-2	95-95-4	SW8270C	9/2/2009	-14.5	-15	2.29E-02	U	2.29E-02	3.30E-01	3.65E+02	1.55E+04		
B6-1	95-95-4	SW8270C	9/2/2009	-0.5	-1	2.22E-02	U	2.22E-02	3.30E-01	3.65E+02	1.55E+04		
B6-2	95-95-4	SW8270C	9/2/2009	-14.5	-15	2.29E-02	U	2.29E-02	3.30E-01	3.65E+02	1.55E+04		
B7 0-1'	95-95-4	SW8270C	11/11/2009	0	-1	2.14E-02	U	2.14E-02	3.30E-01	3.65E+02	1.55E+04		
B7 14-15'	95-95-4	SW8270C	11/11/2009	-14	-15	2.21E-02	U	2.21E-02	3.30E-01	3.65E+02	1.55E+04		
B8-1	95-95-4	SW8270C	9/2/2009	-1	-1.5	2.27E-02	U	2.27E-02	3.30E-01	3.65E+02	1.55E+04		
B8-2	95-95-4	SW8270C	9/2/2009	-14	-15	2.21E-02	U	2.21E-02	3.30E-01	3.65E+02	1.55E+04		
B9 0-1'	95-95-4	SW8270C	11/11/2009	0	-1	2.26E-02	U	2.26E-02	3.30E-01	3.65E+02	1.55E+04		
B9 14-15'	95-95-4	SW8270C	11/11/2009	-14	-15	2.20E-02	U	2.20E-02	3.30E-01	3.65E+02	1.55E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2,4,6-Trichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	88-06-2	SW8270C	8/31/2009	0	-1	3.02E-02	U	3.02E-02	3.30E-01	7.74E-01	4.45E+01		
B1 0-1'	88-06-2	SW8270C	11/11/2009	0	-1	3.13E-02	U	3.13E-02	3.30E-01	7.74E-01	4.45E+01		
B1 14-15'	88-06-2	SW8270C	11/11/2009	-14	-15	2.81E-02	U	2.81E-02	3.30E-01	7.74E-01	4.45E+01		
B10-1	88-06-2	SW8270C	9/2/2009	-2	-3	3.61E-02	U	3.61E-02	3.30E-01	7.74E-01	4.45E+01		
B10-2	88-06-2	SW8270C	9/2/2009	-13	-14	3.07E-02	U	3.07E-02	3.30E-01	7.74E-01	4.45E+01		
B2 1-1.5	88-06-2	SW8270C	9/1/2009	-1	-1.5	2.86E-02	U	2.86E-02	3.30E-01	7.74E-01	4.45E+01		
B2 21-22.5	88-06-2	SW8270C	9/1/2009	-21	-22.5	3.38E-02	U	3.38E-02	3.30E-01	7.74E-01	4.45E+01		
B3 12-13	88-06-2	SW8270C	8/31/2009	-12	-13	2.72E-02	U	2.72E-02	3.30E-01	7.74E-01	4.45E+01		
B3 2-3	88-06-2	SW8270C	8/31/2009	-2	-3	3.18E-02	U	3.18E-02	3.30E-01	7.74E-01	4.45E+01		
B4 14-14.5	88-06-2	SW8270C	9/1/2009	-14	-14.5	3.05E-02	U	3.05E-02	3.30E-01	7.74E-01	4.45E+01		
B4 2-2.5	88-06-2	SW8270C	9/1/2009	-2	-2.5	3.30E-02	U	3.30E-02	3.30E-01	7.74E-01	4.45E+01		
B5-1	88-06-2	SW8270C	9/2/2009	-1	-1.5	3.24E-02	U	3.24E-02	3.30E-01	7.74E-01	4.45E+01		
B5-2	88-06-2	SW8270C	9/2/2009	-14.5	-15	3.09E-02	U	3.09E-02	3.30E-01	7.74E-01	4.45E+01		
B6-1	88-06-2	SW8270C	9/2/2009	-0.5	-1	3.00E-02	U	3.00E-02	3.30E-01	7.74E-01	4.45E+01		
B6-2	88-06-2	SW8270C	9/2/2009	-14.5	-15	3.09E-02	U	3.09E-02	3.30E-01	7.74E-01	4.45E+01		
B7 0-1'	88-06-2	SW8270C	11/11/2009	0	-1	2.89E-02	U	2.89E-02	3.30E-01	7.74E-01	4.45E+01		
B7 14-15'	88-06-2	SW8270C	11/11/2009	-14	-15	2.97E-02	U	2.97E-02	3.30E-01	7.74E-01	4.45E+01		
B8-1	88-06-2	SW8270C	9/2/2009	-1	-1.5	3.06E-02	U	3.06E-02	3.30E-01	7.74E-01	4.45E+01		
B8-2	88-06-2	SW8270C	9/2/2009	-14	-15	2.97E-02	U	2.97E-02	3.30E-01	7.74E-01	4.45E+01		
B9 0-1'	88-06-2	SW8270C	11/11/2009	0	-1	3.05E-02	U	3.05E-02	3.30E-01	7.74E-01	4.45E+01		
B9 14-15'	88-06-2	SW8270C	11/11/2009	-14	-15	2.96E-02	U	2.96E-02	3.30E-01	7.74E-01	4.45E+01		

2,4,6-Trinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 1-2 FT	118-96-7	SW-846 83	8/31/2009	-1	-2	1.25E+00	U	1.25E+00	1.00E-01	1.83E+00	7.74E+01		
B1 13-14	118-96-7	SW-846 83	8/31/2009	-13	-14	1.25E+00	U	1.25E+00	1.00E-01	1.83E+00	7.74E+01		
B10 1 - 2	118-96-7	SW-846 83	9/2/2009	-1	-2	1.48E+00	U	1.48E+00	1.00E-01	1.83E+00	7.74E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2,4,6-Trinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10 11.5 - 1	118-96-7	SW-846 83	9/2/2009	-11.5	-12	1.54E+00	U	1.54E+00	1.00E-01	1.83E+00	7.74E+01		
B2 0.5-1.0	118-96-7	SW-846 83	9/1/2009	-0.5	-1	1.25E+00	U	1.25E+00	1.00E-01	1.83E+00	7.74E+01		
B2 21-21.5	118-96-7	SW-846 83	9/1/2009	-21	-21.5	1.25E+00	U	1.25E+00	1.00E-01	1.83E+00	7.74E+01		
B3 0-1	118-96-7	SW-846 83	8/31/2009	0	-1	1.25E+00	U	1.25E+00	1.00E-01	1.83E+00	7.74E+01		
B3 14-15	118-96-7	SW-846 83	8/31/2009	-14	-15	1.25E+00	U	1.25E+00	1.00E-01	1.83E+00	7.74E+01		
B4 13-14	118-96-7	SW-846 83	9/1/2009	-13	-14	1.25E+00	U	1.25E+00	1.00E-01	1.83E+00	7.74E+01		
B4 3-3.5	118-96-7	SW-846 83	9/1/2009	-3	-3.5	1.25E+00	U	1.25E+00	1.00E-01	1.83E+00	7.74E+01		
B5 14 - 14.	118-96-7	SW-846 83	9/2/2009	-14	-14.5	1.47E+00	U	1.47E+00	1.00E-01	1.83E+00	7.74E+01		
B5 0.5 - 1 M	118-96-7	SW-846 83	9/2/2009	-0.5	-1	1.53E+00	U	1.53E+00	1.00E-01	1.83E+00	7.74E+01		
B6 1 - 1.5	118-96-7	SW-846 83	9/2/2009	-1	-1.5	1.47E+00	U	1.47E+00	1.00E-01	1.83E+00	7.74E+01		
B6 14 - 14.5	118-96-7	SW-846 83	9/2/2009	-14	-14.5	1.44E+00	U	1.44E+00	1.00E-01	1.83E+00	7.74E+01		
B7 0-1 FT	118-96-7	SW-846 83	8/31/2009	0	-1	1.25E+00	U	1.25E+00	1.00E-01	1.83E+00	7.74E+01		
B7 14-15	118-96-7	SW-846 83	8/31/2009	-14	-15	1.25E+00	U	1.25E+00	1.00E-01	1.83E+00	7.74E+01		
B8 13 - 14	118-96-7	SW-846 83	9/2/2009	-13	-14	1.42E+00	U	1.42E+00	1.00E-01	1.83E+00	7.74E+01		
B8 2.75 - 3	118-96-7	SW-846 83	9/2/2009	-2.75	-3	1.57E+00	U	1.57E+00	1.00E-01	1.83E+00	7.74E+01		
B9 14-15	118-96-7	SW-846 83	8/31/2009	-14	-15	1.25E+00	U	1.25E+00	1.00E-01	1.83E+00	7.74E+01		
B9-0-2 FT	118-96-7	SW-846 83	8/31/2009	0	-2	1.25E+00	U	1.25E+00	1.00E-01	1.83E+00	7.74E+01		

2,4-Dichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	120-83-2	SW8270C	8/31/2009	0	-1	4.84E-02	U	4.84E-02	3.30E-01	1.09E+01	4.65E+02		
B1 0-1'	120-83-2	SW8270C	11/11/2009	0	-1	5.00E-02	U	5.00E-02	3.30E-01	1.09E+01	4.65E+02		
B1 14-15'	120-83-2	SW8270C	11/11/2009	-14	-15	4.50E-02	U	4.50E-02	3.30E-01	1.09E+01	4.65E+02		
B10-1	120-83-2	SW8270C	9/2/2009	-2	-3	5.77E-02	U	5.77E-02	3.30E-01	1.09E+01	4.65E+02		
B10-2	120-83-2	SW8270C	9/2/2009	-13	-14	4.91E-02	U	4.91E-02	3.30E-01	1.09E+01	4.65E+02		
B2 1-1.5	120-83-2	SW8270C	9/1/2009	-1	-1.5	4.57E-02	U	4.57E-02	3.30E-01	1.09E+01	4.65E+02		
B2 21-22.5	120-83-2	SW8270C	9/1/2009	-21	-22.5	5.41E-02	U	5.41E-02	3.30E-01	1.09E+01	4.65E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2,4-Dichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 12-13	120-83-2	SW8270C	8/31/2009	-12	-13	4.35E-02	U	4.35E-02	3.30E-01	1.09E+01	4.65E+02		
B3 2-3	120-83-2	SW8270C	8/31/2009	-2	-3	5.09E-02	U	5.09E-02	3.30E-01	1.09E+01	4.65E+02		
B4 14-14.5	120-83-2	SW8270C	9/1/2009	-14	-14.5	4.88E-02	U	4.88E-02	3.30E-01	1.09E+01	4.65E+02		
B4 2-2.5	120-83-2	SW8270C	9/1/2009	-2	-2.5	5.27E-02	U	5.27E-02	3.30E-01	1.09E+01	4.65E+02		
B5-1	120-83-2	SW8270C	9/2/2009	-1	-1.5	5.19E-02	U	5.19E-02	3.30E-01	1.09E+01	4.65E+02		
B5-2	120-83-2	SW8270C	9/2/2009	-14.5	-15	4.94E-02	U	4.94E-02	3.30E-01	1.09E+01	4.65E+02		
B6-1	120-83-2	SW8270C	9/2/2009	-0.5	-1	4.79E-02	U	4.79E-02	3.30E-01	1.09E+01	4.65E+02		
B6-2	120-83-2	SW8270C	9/2/2009	-14.5	-15	4.94E-02	U	4.94E-02	3.30E-01	1.09E+01	4.65E+02		
B7 0-1'	120-83-2	SW8270C	11/11/2009	0	-1	4.62E-02	U	4.62E-02	3.30E-01	1.09E+01	4.65E+02		
B7 14-15'	120-83-2	SW8270C	11/11/2009	-14	-15	4.76E-02	U	4.76E-02	3.30E-01	1.09E+01	4.65E+02		
B8-1	120-83-2	SW8270C	9/2/2009	-1	-1.5	4.89E-02	U	4.89E-02	3.30E-01	1.09E+01	4.65E+02		
B8-2	120-83-2	SW8270C	9/2/2009	-14	-15	4.75E-02	U	4.75E-02	3.30E-01	1.09E+01	4.65E+02		
B9 0-1'	120-83-2	SW8270C	11/11/2009	0	-1	4.88E-02	U	4.88E-02	3.30E-01	1.09E+01	4.65E+02		
B9 14-15'	120-83-2	SW8270C	11/11/2009	-14	-15	4.74E-02	U	4.74E-02	3.30E-01	1.09E+01	4.65E+02		

2,4-Dimethylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	105-67-9	SW8270C	8/31/2009	0	-1	3.13E-02	U	3.13E-02	3.30E-01	7.30E+01	3.10E+03		
B1 0-1'	105-67-9	SW8270C	11/11/2009	0	-1	3.23E-02	U	3.23E-02	3.30E-01	7.30E+01	3.10E+03		
B1 14-15'	105-67-9	SW8270C	11/11/2009	-14	-15	2.91E-02	U	2.91E-02	3.30E-01	7.30E+01	3.10E+03		
B10-1	105-67-9	SW8270C	9/2/2009	-2	-3	3.73E-02	U	3.73E-02	3.30E-01	7.30E+01	3.10E+03		
B10-2	105-67-9	SW8270C	9/2/2009	-13	-14	3.18E-02	U	3.18E-02	3.30E-01	7.30E+01	3.10E+03		
B2 1-1.5	105-67-9	SW8270C	9/1/2009	-1	-1.5	2.96E-02	U	2.96E-02	3.30E-01	7.30E+01	3.10E+03		
B2 21-22.5	105-67-9	SW8270C	9/1/2009	-21	-22.5	3.50E-02	U	3.50E-02	3.30E-01	7.30E+01	3.10E+03		
B3 12-13	105-67-9	SW8270C	8/31/2009	-12	-13	2.81E-02	U	2.81E-02	3.30E-01	7.30E+01	3.10E+03		
B3 2-3	105-67-9	SW8270C	8/31/2009	-2	-3	3.29E-02	U	3.29E-02	3.30E-01	7.30E+01	3.10E+03		
B4 14-14.5	105-67-9	SW8270C	9/1/2009	-14	-14.5	3.16E-02	U	3.16E-02	3.30E-01	7.30E+01	3.10E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2,4-Dimethylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 2-2.5	105-67-9	SW8270C	9/1/2009	-2	-2.5	3.41E-02	U	3.41E-02	3.30E-01	7.30E+01	3.10E+03		
B5-1	105-67-9	SW8270C	9/2/2009	-1	-1.5	3.35E-02	U	3.35E-02	3.30E-01	7.30E+01	3.10E+03		
B5-2	105-67-9	SW8270C	9/2/2009	-14.5	-15	3.19E-02	U	3.19E-02	3.30E-01	7.30E+01	3.10E+03		
B6-1	105-67-9	SW8270C	9/2/2009	-0.5	-1	3.10E-02	U	3.10E-02	3.30E-01	7.30E+01	3.10E+03		
B6-2	105-67-9	SW8270C	9/2/2009	-14.5	-15	3.19E-02	U	3.19E-02	3.30E-01	7.30E+01	3.10E+03		
B7 0-1'	105-67-9	SW8270C	11/11/2009	0	-1	2.99E-02	U	2.99E-02	3.30E-01	7.30E+01	3.10E+03		
B7 14-15'	105-67-9	SW8270C	11/11/2009	-14	-15	3.08E-02	U	3.08E-02	3.30E-01	7.30E+01	3.10E+03		
B8-1	105-67-9	SW8270C	9/2/2009	-1	-1.5	3.16E-02	U	3.16E-02	3.30E-01	7.30E+01	3.10E+03		
B8-2	105-67-9	SW8270C	9/2/2009	-14	-15	3.07E-02	U	3.07E-02	3.30E-01	7.30E+01	3.10E+03		
B9 0-1'	105-67-9	SW8270C	11/11/2009	0	-1	3.15E-02	U	3.15E-02	3.30E-01	7.30E+01	3.10E+03		
B9 14-15'	105-67-9	SW8270C	11/11/2009	-14	-15	3.06E-02	U	3.06E-02	3.30E-01	7.30E+01	3.10E+03		

2,4-Dinitrophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	51-28-5	SW8270C	8/31/2009	0	-1	1.28E-01	U	1.28E-01	3.30E-01	7.30E+00	3.10E+02		
B1 0-1'	51-28-5	SW8270C	11/11/2009	0	-1	1.32E-01	U	1.32E-01	3.30E-01	7.30E+00	3.10E+02		
B1 14-15'	51-28-5	SW8270C	11/11/2009	-14	-15	1.19E-01	U	1.19E-01	3.30E-01	7.30E+00	3.10E+02		
B10-1	51-28-5	SW8270C	9/2/2009	-2	-3	1.53E-01	U	1.53E-01	3.30E-01	7.30E+00	3.10E+02		
B10-2	51-28-5	SW8270C	9/2/2009	-13	-14	1.30E-01	U	1.30E-01	3.30E-01	7.30E+00	3.10E+02		
B2 1-1.5	51-28-5	SW8270C	9/1/2009	-1	-1.5	1.21E-01	U	1.21E-01	3.30E-01	7.30E+00	3.10E+02		
B2 21-22.5	51-28-5	SW8270C	9/1/2009	-21	-22.5	1.43E-01	U	1.43E-01	3.30E-01	7.30E+00	3.10E+02		
B3 12-13	51-28-5	SW8270C	8/31/2009	-12	-13	1.15E-01	U	1.15E-01	3.30E-01	7.30E+00	3.10E+02		
B3 2-3	51-28-5	SW8270C	8/31/2009	-2	-3	1.35E-01	U	1.34E-01	3.30E-01	7.30E+00	3.10E+02		
B4 14-14.5	51-28-5	SW8270C	9/1/2009	-14	-14.5	1.29E-01	U	1.29E-01	3.30E-01	7.30E+00	3.10E+02		
B4 2-2.5	51-28-5	SW8270C	9/1/2009	-2	-2.5	1.39E-01	U	1.39E-01	3.30E-01	7.30E+00	3.10E+02		
B5-1	51-28-5	SW8270C	9/2/2009	-1	-1.5	1.37E-01	U	1.37E-01	3.30E-01	7.30E+00	3.10E+02		
B5-2	51-28-5	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	7.30E+00	3.10E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2,4-Dinitrophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B6-1	51-28-5	SW8270C	9/2/2009	-0.5	-1	1.27E-01	U	1.27E-01	3.30E-01	7.30E+00	3.10E+02		
B6-2	51-28-5	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	7.30E+00	3.10E+02		
B7 0-1'	51-28-5	SW8270C	11/11/2009	0	-1	1.22E-01	U	1.22E-01	3.30E-01	7.30E+00	3.10E+02		
B7 14-15'	51-28-5	SW8270C	11/11/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	7.30E+00	3.10E+02		
B8-1	51-28-5	SW8270C	9/2/2009	-1	-1.5	1.29E-01	U	1.29E-01	3.30E-01	7.30E+00	3.10E+02		
B8-2	51-28-5	SW8270C	9/2/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	7.30E+00	3.10E+02		
B9 0-1'	51-28-5	SW8270C	11/11/2009	0	-1	1.29E-01	U	1.29E-01	3.30E-01	7.30E+00	3.10E+02		
B9 14-15'	51-28-5	SW8270C	11/11/2009	-14	-15	1.25E-01	U	1.25E-01	3.30E-01	7.30E+00	3.10E+02		

2,4-Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	121-14-2	SW8270C	8/31/2009	0	-1	2.35E-02	U	2.35E-02	3.30E-01	1.25E-02	7.20E-01		
B1 0-1	121-14-2	SW8270C	8/31/2009	0	-1	1.47E-02	U	1.47E-02	3.33E-02	1.25E-02	7.20E-01		
B1 0-1'	121-14-2	SW8270C	11/11/2009	0	-1	1.51E-02	U	1.51E-02	3.30E-02	1.25E-02	7.20E-01		
B1 1-2 FT	121-14-2	SW-846 83	8/31/2009	-1	-2	8.93E-01	U	8.93E-01	1.00E-01	1.25E-02	7.20E-01		
B1 13-14	121-14-2	SW-846 83	8/31/2009	-13	-14	8.93E-01	U	8.93E-01	1.00E-01	1.25E-02	7.20E-01		
B1 14-15'	121-14-2	SW8270C	11/11/2009	-14	-15	1.36E-02	U	1.36E-02	3.30E-02	1.25E-02	7.20E-01		
B10 1 - 2	121-14-2	SW-846 83	9/2/2009	-1	-2	1.06E+00	U	1.06E+00	1.00E-01	1.25E-02	7.20E-01		
B10 11.5 - 1	121-14-2	SW-846 83	9/2/2009	-11.5	-12	1.10E+00	U	1.10E+00	1.00E-01	1.25E-02	7.20E-01		
B10-1	121-14-2	SW8270C	9/2/2009	-2	-3	1.75E-02	U	1.75E-02	3.33E-02	1.25E-02	7.20E-01		
B10-1	121-14-2	SW8270C	9/2/2009	-2	-3	2.80E-02	U	2.80E-02	3.30E-01	1.25E-02	7.20E-01		
B10-2	121-14-2	SW8270C	9/2/2009	-13	-14	2.38E-02	U	2.38E-02	3.30E-01	1.25E-02	7.20E-01		
B10-2	121-14-2	SW8270C	9/2/2009	-13	-14	1.49E-02	U	1.49E-02	3.33E-02	1.25E-02	7.20E-01		
B2 0.5-1.0	121-14-2	SW-846 83	9/1/2009	-0.5	-1	8.93E-01	U	8.93E-01	1.00E-01	1.25E-02	7.20E-01		
B2 1-1.5	121-14-2	SW8270C	9/1/2009	-1	-1.5	2.22E-02	U	2.22E-02	3.30E-01	1.25E-02	7.20E-01		
B2 1-1.5	121-14-2	SW8270C	9/1/2009	-1	-1.5	1.38E-02	U	1.38E-02	3.33E-02	1.25E-02	7.20E-01		
B2 21-21.5	121-14-2	SW-846 83	9/1/2009	-21	-21.5	8.93E-01	U	8.93E-01	1.00E-01	1.25E-02	7.20E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2,4-Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B2 21-22.5	121-14-2	SW8270C	9/1/2009	-21	-22.5	2.63E-02	U	2.63E-02	3.30E-01	1.25E-02	7.20E-01		
B2 21-22.5	121-14-2	SW8270C	9/1/2009	-21	-22.5	1.64E-02	U	1.64E-02	3.33E-02	1.25E-02	7.20E-01		
B3 0-1	121-14-2	SW-846 83	8/31/2009	0	-1	8.93E-01	U	8.93E-01	1.00E-01	1.25E-02	7.20E-01		
B3 12-13	121-14-2	SW8270C	8/31/2009	-12	-13	2.11E-02	U	2.11E-02	3.30E-01	1.25E-02	7.20E-01		
B3 12-13	121-14-2	SW8270C	8/31/2009	-12	-13	1.32E-02	U	1.32E-02	3.33E-02	1.25E-02	7.20E-01		
B3 14-15	121-14-2	SW-846 83	8/31/2009	-14	-15	8.93E-01	U	8.93E-01	1.00E-01	1.25E-02	7.20E-01		
B3 2-3	121-14-2	SW8270C	8/31/2009	-2	-3	1.54E-02	U	1.54E-02	3.33E-02	1.25E-02	7.20E-01		
B3 2-3	121-14-2	SW8270C	8/31/2009	-2	-3	2.47E-02	U	2.47E-02	3.30E-01	1.25E-02	7.20E-01		
B4 13-14	121-14-2	SW-846 83	9/1/2009	-13	-14	8.93E-01	U	8.93E-01	1.00E-01	1.25E-02	7.20E-01		
B4 14-14.5	121-14-2	SW8270C	9/1/2009	-14	-14.5	2.37E-02	U	2.37E-02	3.30E-01	1.25E-02	7.20E-01		
B4 14-14.5	121-14-2	SW8270C	9/1/2009	-14	-14.5	1.48E-02	U	1.48E-02	3.33E-02	1.25E-02	7.20E-01		
B4 2-2.5	121-14-2	SW8270C	9/1/2009	-2	-2.5	1.60E-02	U	1.60E-02	3.33E-02	1.25E-02	7.20E-01		
B4 2-2.5	121-14-2	SW8270C	9/1/2009	-2	-2.5	2.56E-02	U	2.56E-02	3.30E-01	1.25E-02	7.20E-01		
B4 3-3.5	121-14-2	SW-846 83	9/1/2009	-3	-3.5	8.93E-01	U	8.93E-01	1.00E-01	1.25E-02	7.20E-01		
B5 14 - 14.	121-14-2	SW-846 83	9/2/2009	-14	-14.5	1.05E+00	U	1.05E+00	1.00E-01	1.25E-02	7.20E-01		
B5 0.5 - 1 M	121-14-2	SW-846 83	9/2/2009	-0.5	-1	1.09E+00	U	1.09E+00	1.00E-01	1.25E-02	7.20E-01		
B5-1	121-14-2	SW8270C	9/2/2009	-1	-1.5	2.52E-02	U	2.52E-02	3.30E-01	1.25E-02	7.20E-01		
B5-1	121-14-2	SW8270C	9/2/2009	-1	-1.5	1.57E-02	U	1.57E-02	3.33E-02	1.25E-02	7.20E-01		
B5-2	121-14-2	SW8270C	9/2/2009	-14.5	-15	2.40E-02	U	2.40E-02	3.30E-01	1.25E-02	7.20E-01		
B5-2	121-14-2	SW8270C	9/2/2009	-14.5	-15	1.50E-02	U	1.50E-02	3.33E-02	1.25E-02	7.20E-01		
B6 1 - 1.5	121-14-2	SW-846 83	9/2/2009	-1	-1.5	1.05E+00	U	1.05E+00	1.00E-01	1.25E-02	7.20E-01		
B6 14 - 14.5	121-14-2	SW-846 83	9/2/2009	-14	-14.5	1.03E+00	U	1.03E+00	1.00E-01	1.25E-02	7.20E-01		
B6-1	121-14-2	SW8270C	9/2/2009	-0.5	-1	2.33E-02	U	2.33E-02	3.30E-01	1.25E-02	7.20E-01		
B6-1	121-14-2	SW8270C	9/2/2009	-0.5	-1	1.45E-02	U	1.45E-02	3.33E-02	1.25E-02	7.20E-01		
B6-2	121-14-2	SW8270C	9/2/2009	-14.5	-15	2.40E-02	U	2.40E-02	3.30E-01	1.25E-02	7.20E-01		
B6-2	121-14-2	SW8270C	9/2/2009	-14.5	-15	1.50E-02	U	1.50E-02	3.33E-02	1.25E-02	7.20E-01		
B7 0-1'	121-14-2	SW8270C	11/11/2009	0	-1	1.40E-02	U	1.40E-02	3.30E-02	1.25E-02	7.20E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2,4-Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 0-1 FT	121-14-2	SW-846 83	8/31/2009	0	-1	8.93E-01	U	8.93E-01	1.00E-01	1.25E-02	7.20E-01		
B7 14-15	121-14-2	SW-846 83	8/31/2009	-14	-15	8.93E-01	U	8.93E-01	1.00E-01	1.25E-02	7.20E-01		
B7 14-15'	121-14-2	SW8270C	11/11/2009	-14	-15	1.44E-02	U	1.44E-02	3.30E-02	1.25E-02	7.20E-01		
B8 13 - 14	121-14-2	SW-846 83	9/2/2009	-13	-14	1.01E+00	U	1.01E+00	1.00E-01	1.25E-02	7.20E-01		
B8 2.75 - 3	121-14-2	SW-846 83	9/2/2009	-2.75	-3	1.12E+00	U	1.12E+00	1.00E-01	1.25E-02	7.20E-01		
B8-1	121-14-2	SW8270C	9/2/2009	-1	-1.5	2.37E-02	U	2.37E-02	3.30E-01	1.25E-02	7.20E-01		
B8-1	121-14-2	SW8270C	9/2/2009	-1	-1.5	1.48E-02	U	1.48E-02	3.33E-02	1.25E-02	7.20E-01		
B8-2	121-14-2	SW8270C	9/2/2009	-14	-15	2.31E-02	U	2.31E-02	3.30E-01	1.25E-02	7.20E-01		
B8-2	121-14-2	SW8270C	9/2/2009	-14	-15	1.44E-02	U	1.44E-02	3.33E-02	1.25E-02	7.20E-01		
B9 0-1'	121-14-2	SW8270C	11/11/2009	0	-1	1.48E-02	U	1.48E-02	3.30E-02	1.25E-02	7.20E-01		
B9 14-15	121-14-2	SW-846 83	8/31/2009	-14	-15	8.93E-01	U	8.93E-01	1.00E-01	1.25E-02	7.20E-01		
B9 14-15'	121-14-2	SW8270C	11/11/2009	-14	-15	1.44E-02	U	1.44E-02	3.30E-02	1.25E-02	7.20E-01		
B9-0-2 FT	121-14-2	SW-846 83	8/31/2009	0	-2	8.93E-01	U	8.93E-01	1.00E-01	1.25E-02	7.20E-01		

2,6 Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 1-2 FT	606-20-2	SW-846 83	8/31/2009	-1	-2	1.07E+00	U	1.07E+00	1.00E-01	1.25E-02	7.20E-01		
B1 13-14	606-20-2	SW-846 83	8/31/2009	-13	-14	1.07E+00	U	1.07E+00	1.00E-01	1.25E-02	7.20E-01		
B10 1 - 2	606-20-2	SW-846 83	9/2/2009	-1	-2	1.27E+00	U	1.27E+00	1.00E-01	1.25E-02	7.20E-01		
B10 11.5 - 1	606-20-2	SW-846 83	9/2/2009	-11.5	-12	1.31E+00	U	1.31E+00	1.00E-01	1.25E-02	7.20E-01		
B2 0.5-1.0	606-20-2	SW-846 83	9/1/2009	-0.5	-1	1.07E+00	U	1.07E+00	1.00E-01	1.25E-02	7.20E-01		
B2 21-21.5	606-20-2	SW-846 83	9/1/2009	-21	-21.5	1.07E+00	U	1.07E+00	1.00E-01	1.25E-02	7.20E-01		
B3 0-1	606-20-2	SW-846 83	8/31/2009	0	-1	1.07E+00	U	1.07E+00	1.00E-01	1.25E-02	7.20E-01		
B3 14-15	606-20-2	SW-846 83	8/31/2009	-14	-15	1.07E+00	U	1.07E+00	1.00E-01	1.25E-02	7.20E-01		
B4 13-14	606-20-2	SW-846 83	9/1/2009	-13	-14	1.07E+00	U	1.07E+00	1.00E-01	1.25E-02	7.20E-01		
B4 3-3.5	606-20-2	SW-846 83	9/1/2009	-3	-3.5	1.07E+00	U	1.07E+00	1.00E-01	1.25E-02	7.20E-01		
B5 14 - 14.	606-20-2	SW-846 83	9/2/2009	-14	-14.5	1.25E+00	U	1.25E+00	1.00E-01	1.25E-02	7.20E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2,6 Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B5 0.5 - 1 M	606-20-2	SW-846 83	9/2/2009	-0.5	-1	1.31E+00	U	1.31E+00	1.00E-01	1.25E-02	7.20E-01		
B6 1 - 1.5	606-20-2	SW-846 83	9/2/2009	-1	-1.5	1.26E+00	U	1.26E+00	1.00E-01	1.25E-02	7.20E-01		
B6 14 - 14.5	606-20-2	SW-846 83	9/2/2009	-14	-14.5	1.23E+00	U	1.23E+00	1.00E-01	1.25E-02	7.20E-01		
B7 0-1 FT	606-20-2	SW-846 83	8/31/2009	0	-1	1.07E+00	U	1.07E+00	1.00E-01	1.25E-02	7.20E-01		
B7 14-15	606-20-2	SW-846 83	8/31/2009	-14	-15	1.07E+00	U	1.07E+00	1.00E-01	1.25E-02	7.20E-01		
B8 13 - 14	606-20-2	SW-846 83	9/2/2009	-13	-14	1.21E+00	U	1.21E+00	1.00E-01	1.25E-02	7.20E-01		
B8 2.75 - 3	606-20-2	SW-846 83	9/2/2009	-2.75	-3	1.34E+00	U	1.34E+00	1.00E-01	1.25E-02	7.20E-01		
B9 14-15	606-20-2	SW-846 83	8/31/2009	-14	-15	1.07E+00	U	1.07E+00	1.00E-01	1.25E-02	7.20E-01		
B9-0-2 FT	606-20-2	SW-846 83	8/31/2009	0	-2	1.07E+00	U	1.07E+00	1.00E-01	1.25E-02	7.20E-01		

2,6-Dichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	87-65-0	SW8270C	8/31/2009	0	-1	4.84E-02	U	4.84E-02	3.30E-01	3.65E+00	1.55E+02		
B1 0-1'	87-65-0	SW8270C	11/11/2009	0	-1	5.00E-02	U	5.00E-02	3.30E-01	3.65E+00	1.55E+02		
B1 14-15'	87-65-0	SW8270C	11/11/2009	-14	-15	4.50E-02	U	4.50E-02	3.30E-01	3.65E+00	1.55E+02		
B10-1	87-65-0	SW8270C	9/2/2009	-2	-3	5.77E-02	U	5.77E-02	3.30E-01	3.65E+00	1.55E+02		
B10-2	87-65-0	SW8270C	9/2/2009	-13	-14	4.91E-02	U	4.91E-02	3.30E-01	3.65E+00	1.55E+02		
B2 1-1.5	87-65-0	SW8270C	9/1/2009	-1	-1.5	4.57E-02	U	4.57E-02	3.30E-01	3.65E+00	1.55E+02		
B2 21-22.5	87-65-0	SW8270C	9/1/2009	-21	-22.5	5.41E-02	U	5.41E-02	3.30E-01	3.65E+00	1.55E+02		
B3 12-13	87-65-0	SW8270C	8/31/2009	-12	-13	4.35E-02	U	4.35E-02	3.30E-01	3.65E+00	1.55E+02		
B3 2-3	87-65-0	SW8270C	8/31/2009	-2	-3	5.09E-02	U	5.09E-02	3.30E-01	3.65E+00	1.55E+02		
B4 14-14.5	87-65-0	SW8270C	9/1/2009	-14	-14.5	4.88E-02	U	4.88E-02	3.30E-01	3.65E+00	1.55E+02		
B4 2-2.5	87-65-0	SW8270C	9/1/2009	-2	-2.5	5.27E-02	U	5.27E-02	3.30E-01	3.65E+00	1.55E+02		
B5-1	87-65-0	SW8270C	9/2/2009	-1	-1.5	5.19E-02	U	5.19E-02	3.30E-01	3.65E+00	1.55E+02		
B5-2	87-65-0	SW8270C	9/2/2009	-14.5	-15	4.94E-02	U	4.94E-02	3.30E-01	3.65E+00	1.55E+02		
B6-1	87-65-0	SW8270C	9/2/2009	-0.5	-1	4.79E-02	U	4.79E-02	3.30E-01	3.65E+00	1.55E+02		
B6-2	87-65-0	SW8270C	9/2/2009	-14.5	-15	4.94E-02	U	4.94E-02	3.30E-01	3.65E+00	1.55E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2,6-Dichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 0-1'	87-65-0	SW8270C	11/11/2009	0	-1	4.62E-02	U	4.62E-02	3.30E-01	3.65E+00	1.55E+02		
B7 14-15'	87-65-0	SW8270C	11/11/2009	-14	-15	4.76E-02	U	4.76E-02	3.30E-01	3.65E+00	1.55E+02		
B8-1	87-65-0	SW8270C	9/2/2009	-1	-1.5	4.89E-02	U	4.89E-02	3.30E-01	3.65E+00	1.55E+02		
B8-2	87-65-0	SW8270C	9/2/2009	-14	-15	4.75E-02	U	4.75E-02	3.30E-01	3.65E+00	1.55E+02		
B9 0-1'	87-65-0	SW8270C	11/11/2009	0	-1	4.88E-02	U	4.88E-02	3.30E-01	3.65E+00	1.55E+02		
B9 14-15'	87-65-0	SW8270C	11/11/2009	-14	-15	4.74E-02	U	4.74E-02	3.30E-01	3.65E+00	1.55E+02		

2,6-Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	606-20-2	SW8270C	8/31/2009	0	-1	3.21E-02	U	3.21E-02	3.30E-01	1.25E-02	7.20E-01		
B1 0-1	606-20-2	SW8270C	8/31/2009	0	-1	1.30E-02	U	1.30E-02	3.33E-02	1.25E-02	7.20E-01		
B1 0-1'	606-20-2	SW8270C	11/11/2009	0	-1	3.32E-02	U	3.32E-02	3.30E-01	1.25E-02	7.20E-01		
B1 14-15'	606-20-2	SW8270C	11/11/2009	-14	-15	2.99E-02	U	2.99E-02	3.30E-01	1.25E-02	7.20E-01		
B10-1	606-20-2	SW8270C	9/2/2009	-2	-3	3.83E-02	U	3.83E-02	3.30E-01	1.25E-02	7.20E-01		
B10-1	606-20-2	SW8270C	9/2/2009	-2	-3	1.55E-02	U	1.55E-02	3.33E-02	1.25E-02	7.20E-01		
B10-2	606-20-2	SW8270C	9/2/2009	-13	-14	3.26E-02	U	3.26E-02	3.30E-01	1.25E-02	7.20E-01		
B10-2	606-20-2	SW8270C	9/2/2009	-13	-14	1.32E-02	U	1.32E-02	3.33E-02	1.25E-02	7.20E-01		
B2 1-1.5	606-20-2	SW8270C	9/1/2009	-1	-1.5	3.03E-02	U	3.03E-02	3.30E-01	1.25E-02	7.20E-01		
B2 1-1.5	606-20-2	SW8270C	9/1/2009	-1	-1.5	1.23E-02	U	1.23E-02	3.33E-02	1.25E-02	7.20E-01		
B2 21-22.5	606-20-2	SW8270C	9/1/2009	-21	-22.5	3.59E-02	U	3.59E-02	3.30E-01	1.25E-02	7.20E-01		
B2 21-22.5	606-20-2	SW8270C	9/1/2009	-21	-22.5	1.46E-02	U	1.46E-02	3.33E-02	1.25E-02	7.20E-01		
B3 12-13	606-20-2	SW8270C	8/31/2009	-12	-13	1.17E-02	U	1.17E-02	3.33E-02	1.25E-02	7.20E-01		
B3 12-13	606-20-2	SW8270C	8/31/2009	-12	-13	2.89E-02	U	2.89E-02	3.30E-01	1.25E-02	7.20E-01		
B3 2-3	606-20-2	SW8270C	8/31/2009	-2	-3	3.37E-02	U	3.37E-02	3.30E-01	1.25E-02	7.20E-01		
B3 2-3	606-20-2	SW8270C	8/31/2009	-2	-3	1.37E-02	U	1.37E-02	3.33E-02	1.25E-02	7.20E-01		
B4 14-14.5	606-20-2	SW8270C	9/1/2009	-14	-14.5	3.24E-02	U	3.24E-02	3.30E-01	1.25E-02	7.20E-01		
B4 14-14.5	606-20-2	SW8270C	9/1/2009	-14	-14.5	1.31E-02	U	1.31E-02	3.33E-02	1.25E-02	7.20E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2,6-Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 2-2.5	606-20-2	SW8270C	9/1/2009	-2	-2.5	1.42E-02	U	1.42E-02	3.33E-02	1.25E-02	7.20E-01		
B4 2-2.5	606-20-2	SW8270C	9/1/2009	-2	-2.5	3.50E-02	U	3.50E-02	3.30E-01	1.25E-02	7.20E-01		
B5-1	606-20-2	SW8270C	9/2/2009	-1	-1.5	3.44E-02	U	3.44E-02	3.30E-01	1.25E-02	7.20E-01		
B5-1	606-20-2	SW8270C	9/2/2009	-1	-1.5	1.40E-02	U	1.40E-02	3.33E-02	1.25E-02	7.20E-01		
B5-2	606-20-2	SW8270C	9/2/2009	-14.5	-15	1.33E-02	U	1.33E-02	3.33E-02	1.25E-02	7.20E-01		
B5-2	606-20-2	SW8270C	9/2/2009	-14.5	-15	3.28E-02	U	3.28E-02	3.30E-01	1.25E-02	7.20E-01		
B6-1	606-20-2	SW8270C	9/2/2009	-0.5	-1	1.29E-02	U	1.29E-02	3.33E-02	1.25E-02	7.20E-01		
B6-1	606-20-2	SW8270C	9/2/2009	-0.5	-1	3.18E-02	U	3.18E-02	3.30E-01	1.25E-02	7.20E-01		
B6-2	606-20-2	SW8270C	9/2/2009	-14.5	-15	3.28E-02	U	3.28E-02	3.30E-01	1.25E-02	7.20E-01		
B6-2	606-20-2	SW8270C	9/2/2009	-14.5	-15	1.33E-02	U	1.33E-02	3.33E-02	1.25E-02	7.20E-01		
B7 0-1'	606-20-2	SW8270C	11/11/2009	0	-1	3.06E-02	U	3.06E-02	3.30E-01	1.25E-02	7.20E-01		
B7 14-15'	606-20-2	SW8270C	11/11/2009	-14	-15	3.16E-02	U	3.16E-02	3.30E-01	1.25E-02	7.20E-01		
B8-1	606-20-2	SW8270C	9/2/2009	-1	-1.5	3.24E-02	U	3.24E-02	3.30E-01	1.25E-02	7.20E-01		
B8-1	606-20-2	SW8270C	9/2/2009	-1	-1.5	1.32E-02	U	1.32E-02	3.33E-02	1.25E-02	7.20E-01		
B8-2	606-20-2	SW8270C	9/2/2009	-14	-15	3.15E-02	U	3.15E-02	3.30E-01	1.25E-02	7.20E-01		
B8-2	606-20-2	SW8270C	9/2/2009	-14	-15	1.28E-02	U	1.28E-02	3.33E-02	1.25E-02	7.20E-01		
B9 0-1'	606-20-2	SW8270C	11/11/2009	0	-1	3.24E-02	U	3.24E-02	3.30E-01	1.25E-02	7.20E-01		
B9 14-15'	606-20-2	SW8270C	11/11/2009	-14	-15	3.14E-02	U	3.14E-02	3.30E-01	1.25E-02	7.20E-01		

2-Amino-4,6-dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 1-2 FT	35572-78-2	SW-846 83	8/31/2009	-1	-2	8.12E-01	U	8.12E-01	1.00E-01	6.08E-01	2.58E+01		
B1 13-14	35572-78-2	SW-846 83	8/31/2009	-13	-14	8.12E-01	U	8.12E-01	1.00E-01	6.08E-01	2.58E+01		
B10 1 - 2	35572-78-2	SW-846 83	9/2/2009	-1	-2	9.64E-01	U	9.64E-01	1.00E-01	6.08E-01	2.58E+01		
B10 11.5 - 1	35572-78-2	SW-846 83	9/2/2009	-11.5	-12	9.98E-01	U	9.98E-01	1.00E-01	6.08E-01	2.58E+01		
B2 0.5-1.0	35572-78-2	SW-846 83	9/1/2009	-0.5	-1	8.12E-01	U	8.12E-01	1.00E-01	6.08E-01	2.58E+01		
B2 21-21.5	35572-78-2	SW-846 83	9/1/2009	-21	-21.5	8.12E-01	U	8.12E-01	1.00E-01	6.08E-01	2.58E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2-Amino-4,6-dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 0-1	35572-78-2	SW-846 83	8/31/2009	0	-1	8.12E-01	U	8.12E-01	1.00E-01	6.08E-01	2.58E+01		
B3 14-15	35572-78-2	SW-846 83	8/31/2009	-14	-15	8.12E-01	U	8.12E-01	1.00E-01	6.08E-01	2.58E+01		
B4 13-14	35572-78-2	SW-846 83	9/1/2009	-13	-14	8.12E-01	U	8.12E-01	1.00E-01	6.08E-01	2.58E+01		
B4 3-3.5	35572-78-2	SW-846 83	9/1/2009	-3	-3.5	8.12E-01	U	8.12E-01	1.00E-01	6.08E-01	2.58E+01		
B5 14 - 14.	35572-78-2	SW-846 83	9/2/2009	-14	-14.5	9.52E-01	U	9.52E-01	1.00E-01	6.08E-01	2.58E+01		
B5 0.5 - 1 M	35572-78-2	SW-846 83	9/2/2009	-0.5	-1	9.91E-01	U	9.91E-01	1.00E-01	6.08E-01	2.58E+01		
B6 1 - 1.5	35572-78-2	SW-846 83	9/2/2009	-1	-1.5	9.55E-01	U	9.55E-01	1.00E-01	6.08E-01	2.58E+01		
B6 14 - 14.5	35572-78-2	SW-846 83	9/2/2009	-14	-14.5	9.34E-01	U	9.34E-01	1.00E-01	6.08E-01	2.58E+01		
B7 0-1 FT	35572-78-2	SW-846 83	8/31/2009	0	-1	8.12E-01	U	8.12E-01	1.00E-01	6.08E-01	2.58E+01		
B7 14-15	35572-78-2	SW-846 83	8/31/2009	-14	-15	8.12E-01	U	8.12E-01	1.00E-01	6.08E-01	2.58E+01		
B8 13 - 14	35572-78-2	SW-846 83	9/2/2009	-13	-14	9.22E-01	U	9.22E-01	1.00E-01	6.08E-01	2.58E+01		
B8 2.75 - 3	35572-78-2	SW-846 83	9/2/2009	-2.75	-3	1.02E+00	U	1.02E+00	1.00E-01	6.08E-01	2.58E+01		
B9 14-15	35572-78-2	SW-846 83	8/31/2009	-14	-15	8.12E-01	U	8.12E-01	1.00E-01	6.08E-01	2.58E+01		
B9-0-2 FT	35572-78-2	SW-846 83	8/31/2009	0	-2	8.12E-01	U	8.12E-01	1.00E-01	6.08E-01	2.58E+01		

2-Butanone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	78-93-3	SW8260B	8/31/2009	0	-1	4.91E-04	U	4.91E-04	1.00E-02	2.19E+03	2.61E+04		
B1 0-1'	78-93-3	SW8260B	11/11/2009	0	-1	7.32E-04	U	7.32E-04	1.00E-02	2.19E+03	2.61E+04		
B1 14-15'	78-93-3	SW8260B	11/11/2009	-14	-15	5.34E-04	U	5.34E-04	1.00E-02	2.19E+03	2.61E+04		
B10-1	78-93-3	SW8260B	9/2/2009	-2	-3	5.85E-04	U	5.85E-04	1.00E-02	2.19E+03	2.61E+04		
B10-2	78-93-3	SW8260B	9/2/2009	-13	-14	4.98E-04	U	4.98E-04	1.00E-02	2.19E+03	2.61E+04		
B2 1-1.5	78-93-3	SW8260B	9/1/2009	-1	-1.5	4.64E-04	U	4.64E-04	1.00E-02	2.19E+03	2.61E+04		
B2 21-22.5	78-93-3	SW8260B	9/1/2009	-21	-22.5	5.49E-04	U	5.49E-04	1.00E-02	2.19E+03	2.61E+04		
B3 12-13	78-93-3	SW8260B	8/31/2009	-12	-13	4.41E-04	U	4.41E-04	1.00E-02	2.19E+03	2.61E+04		
B3 2-3	78-93-3	SW8260B	8/31/2009	-2	-3	5.16E-04	U	5.16E-04	1.00E-02	2.19E+03	2.61E+04		
B4 14.5-15	78-93-3	SW8260B	9/1/2009	-14.5	-15	5.01E-04	U	5.01E-04	1.00E-02	2.19E+03	2.61E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2-Butanone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 2-2.5	78-93-3	SW8260B	9/1/2009	-2	-2.5	5.35E-04	U	5.35E-04	1.00E-02	2.19E+03	2.61E+04		
B5-1	78-93-3	SW8260B	9/2/2009	-1	-1.5	5.26E-04	U	5.26E-04	1.00E-02	2.19E+03	2.61E+04		
B5-2	78-93-3	SW8260B	9/2/2009	-14.5	-15	5.01E-04	U	5.01E-04	1.00E-02	2.19E+03	2.61E+04		
B6-1	78-93-3	SW8260B	9/2/2009	-0.5	-1	4.86E-04	U	4.86E-04	1.00E-02	2.19E+03	2.61E+04		
B6-2	78-93-3	SW8260B	9/2/2009	-14.5	-15	5.01E-04	U	5.01E-04	1.00E-02	2.19E+03	2.61E+04		
B7 0-1'	78-93-3	SW8260B	11/11/2009	0	-1	5.77E-04	U	5.77E-04	1.00E-02	2.19E+03	2.61E+04		
B7 14-15'	78-93-3	SW8260B	11/11/2009	-14	-15	6.33E-04	U	6.33E-04	1.00E-02	2.19E+03	2.61E+04		
B8-1	78-93-3	SW8260B	9/2/2009	-1	-1.5	4.96E-04	U	4.96E-04	1.00E-02	2.19E+03	2.61E+04		
B8-2	78-93-3	SW8260B	9/2/2009	-14	-15	4.82E-04	U	4.82E-04	1.00E-02	2.19E+03	2.61E+04		
B8-3	78-93-3	SW8260B	9/2/2009	-8	-8.5	5.23E-04	U	5.23E-04	1.00E-02	2.19E+03	2.61E+04		
B9 0-1'	78-93-3	SW8260B	11/11/2009	0	-1	6.80E-04	U	6.80E-04	1.00E-02	2.19E+03	2.61E+04		
B9 14-15'	78-93-3	SW8260B	11/11/2009	-14	-15	6.24E-04	U	6.24E-04	1.00E-02	2.19E+03	2.61E+04		

2-Chloronaphthalene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	91-58-7	SW8270C	8/31/2009	0	-1	3.88E-02	U	3.88E-02	3.30E-01	2.92E+02	1.10E+04		
B1 0-1'	91-58-7	SW8270C	11/11/2009	0	-1	4.01E-02	U	4.01E-02	3.30E-01	2.92E+02	1.10E+04		
B1 14-15'	91-58-7	SW8270C	11/11/2009	-14	-15	3.61E-02	U	3.61E-02	3.30E-01	2.92E+02	1.10E+04		
B10-1	91-58-7	SW8270C	9/2/2009	-2	-3	4.63E-02	U	4.63E-02	3.30E-01	2.92E+02	1.10E+04		
B10-2	91-58-7	SW8270C	9/2/2009	-13	-14	3.94E-02	U	3.94E-02	3.30E-01	2.92E+02	1.10E+04		
B2 1-1.5	91-58-7	SW8270C	9/1/2009	-1	-1.5	3.67E-02	U	3.67E-02	3.30E-01	2.92E+02	1.10E+04		
B2 21-22.5	91-58-7	SW8270C	9/1/2009	-21	-22.5	4.34E-02	U	4.34E-02	3.30E-01	2.92E+02	1.10E+04		
B3 12-13	91-58-7	SW8270C	8/31/2009	-12	-13	3.49E-02	U	3.49E-02	3.30E-01	2.92E+02	1.10E+04		
B3 2-3	91-58-7	SW8270C	8/31/2009	-2	-3	4.08E-02	U	4.08E-02	3.30E-01	2.92E+02	1.10E+04		
B4 14-14.5	91-58-7	SW8270C	9/1/2009	-14	-14.5	3.92E-02	U	3.92E-02	3.30E-01	2.92E+02	1.10E+04		
B4 2-2.5	91-58-7	SW8270C	9/1/2009	-2	-2.5	4.23E-02	U	4.23E-02	3.30E-01	2.92E+02	1.10E+04		
B5-1	91-58-7	SW8270C	9/2/2009	-1	-1.5	4.16E-02	U	4.16E-02	3.30E-01	2.92E+02	1.10E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2-Chloronaphthalene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B5-2	91-58-7	SW8270C	9/2/2009	-14.5	-15	3.97E-02	U	3.97E-02	3.30E-01	2.92E+02	1.10E+04		
B6-1	91-58-7	SW8270C	9/2/2009	-0.5	-1	3.85E-02	U	3.85E-02	3.30E-01	2.92E+02	1.10E+04		
B6-2	91-58-7	SW8270C	9/2/2009	-14.5	-15	3.97E-02	U	3.97E-02	3.30E-01	2.92E+02	1.10E+04		
B7 0-1'	91-58-7	SW8270C	11/11/2009	0	-1	3.71E-02	U	3.71E-02	3.30E-01	2.92E+02	1.10E+04		
B7 14-15'	91-58-7	SW8270C	11/11/2009	-14	-15	3.82E-02	U	3.82E-02	3.30E-01	2.92E+02	1.10E+04		
B8-1	91-58-7	SW8270C	9/2/2009	-1	-1.5	3.92E-02	U	3.92E-02	3.30E-01	2.92E+02	1.10E+04		
B8-2	91-58-7	SW8270C	9/2/2009	-14	-15	3.82E-02	U	3.82E-02	3.30E-01	2.92E+02	1.10E+04		
B9 0-1'	91-58-7	SW8270C	11/11/2009	0	-1	3.92E-02	U	3.92E-02	3.30E-01	2.92E+02	1.10E+04		
B9 14-15'	91-58-7	SW8270C	11/11/2009	-14	-15	3.80E-02	U	3.80E-02	3.30E-01	2.92E+02	1.10E+04		

2-Chlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	95-57-8	SW8270C	8/31/2009	0	-1	4.56E-02	U	4.56E-02	3.30E-01	1.83E+01	1.06E+03		
B1 0-1'	95-57-8	SW8270C	11/11/2009	0	-1	4.71E-02	U	4.71E-02	3.30E-01	1.83E+01	1.06E+03		
B1 14-15'	95-57-8	SW8270C	11/11/2009	-14	-15	4.24E-02	U	4.24E-02	3.30E-01	1.83E+01	1.06E+03		
B10-1	95-57-8	SW8270C	9/2/2009	-2	-3	5.44E-02	U	5.44E-02	3.30E-01	1.83E+01	1.06E+03		
B10-2	95-57-8	SW8270C	9/2/2009	-13	-14	4.63E-02	U	4.63E-02	3.30E-01	1.83E+01	1.06E+03		
B2 1-1.5	95-57-8	SW8270C	9/1/2009	-1	-1.5	4.31E-02	U	4.31E-02	3.30E-01	1.83E+01	1.06E+03		
B2 21-22.5	95-57-8	SW8270C	9/1/2009	-21	-22.5	5.10E-02	U	5.10E-02	3.30E-01	1.83E+01	1.06E+03		
B3 12-13	95-57-8	SW8270C	8/31/2009	-12	-13	4.10E-02	U	4.10E-02	3.30E-01	1.83E+01	1.06E+03		
B3 2-3	95-57-8	SW8270C	8/31/2009	-2	-3	4.79E-02	U	4.79E-02	3.30E-01	1.83E+01	1.06E+03		
B4 14-14.5	95-57-8	SW8270C	9/1/2009	-14	-14.5	4.60E-02	U	4.60E-02	3.30E-01	1.83E+01	1.06E+03		
B4 2-2.5	95-57-8	SW8270C	9/1/2009	-2	-2.5	4.97E-02	U	4.97E-02	3.30E-01	1.83E+01	1.06E+03		
B5-1	95-57-8	SW8270C	9/2/2009	-1	-1.5	4.89E-02	U	4.89E-02	3.30E-01	1.83E+01	1.06E+03		
B5-2	95-57-8	SW8270C	9/2/2009	-14.5	-15	4.66E-02	U	4.66E-02	3.30E-01	1.83E+01	1.06E+03		
B6-1	95-57-8	SW8270C	9/2/2009	-0.5	-1	4.52E-02	U	4.52E-02	3.30E-01	1.83E+01	1.06E+03		
B6-2	95-57-8	SW8270C	9/2/2009	-14.5	-15	4.66E-02	U	4.66E-02	3.30E-01	1.83E+01	1.06E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2-Chlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 0-1'	95-57-8	SW8270C	11/11/2009	0	-1	4.35E-02	U	4.35E-02	3.30E-01	1.83E+01	1.06E+03		
B7 14-15'	95-57-8	SW8270C	11/11/2009	-14	-15	4.49E-02	U	4.49E-02	3.30E-01	1.83E+01	1.06E+03		
B8-1	95-57-8	SW8270C	9/2/2009	-1	-1.5	4.61E-02	U	4.61E-02	3.30E-01	1.83E+01	1.06E+03		
B8-2	95-57-8	SW8270C	9/2/2009	-14	-15	4.48E-02	U	4.48E-02	3.30E-01	1.83E+01	1.06E+03		
B9 0-1'	95-57-8	SW8270C	11/11/2009	0	-1	4.60E-02	U	4.60E-02	3.30E-01	1.83E+01	1.06E+03		
B9 14-15'	95-57-8	SW8270C	11/11/2009	-14	-15	4.46E-02	U	4.46E-02	3.30E-01	1.83E+01	1.06E+03		

2-Chlorotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	95-49-8	SW8260B	8/31/2009	0	-1	1.22E-03	U	1.22E-03	5.00E-03	7.30E+01	1.54E+03		
B1 0-1'	95-49-8	SW8260B	11/11/2009	0	-1	1.81E-03	U	1.81E-03	5.00E-03	7.30E+01	1.54E+03		
B1 14-15'	95-49-8	SW8260B	11/11/2009	-14	-15	1.33E-03	U	1.33E-03	5.00E-03	7.30E+01	1.54E+03		
B10-1	95-49-8	SW8260B	9/2/2009	-2	-3	1.46E-03	U	1.46E-03	5.00E-03	7.30E+01	1.54E+03		
B10-2	95-49-8	SW8260B	9/2/2009	-13	-14	1.24E-03	U	1.24E-03	5.00E-03	7.30E+01	1.54E+03		
B2 1-1.5	95-49-8	SW8260B	9/1/2009	-1	-1.5	1.15E-03	U	1.15E-03	5.00E-03	7.30E+01	1.54E+03		
B2 21-22.5	95-49-8	SW8260B	9/1/2009	-21	-22.5	1.37E-03	U	1.37E-03	5.00E-03	7.30E+01	1.54E+03		
B3 12-13	95-49-8	SW8260B	8/31/2009	-12	-13	1.10E-03	U	1.10E-03	5.00E-03	7.30E+01	1.54E+03		
B3 2-3	95-49-8	SW8260B	8/31/2009	-2	-3	1.28E-03	U	1.28E-03	5.00E-03	7.30E+01	1.54E+03		
B4 14.5-15	95-49-8	SW8260B	9/1/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	7.30E+01	1.54E+03		
B4 2-2.5	95-49-8	SW8260B	9/1/2009	-2	-2.5	1.33E-03	U	1.33E-03	5.00E-03	7.30E+01	1.54E+03		
B5-1	95-49-8	SW8260B	9/2/2009	-1	-1.5	1.31E-03	U	1.31E-03	5.00E-03	7.30E+01	1.54E+03		
B5-2	95-49-8	SW8260B	9/2/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	7.30E+01	1.54E+03		
B6-1	95-49-8	SW8260B	9/2/2009	-0.5	-1	1.21E-03	U	1.21E-03	5.00E-03	7.30E+01	1.54E+03		
B6-2	95-49-8	SW8260B	9/2/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	7.30E+01	1.54E+03		
B7 0-1'	95-49-8	SW8260B	11/11/2009	0	-1	1.44E-03	U	1.44E-03	5.00E-03	7.30E+01	1.54E+03		
B7 14-15'	95-49-8	SW8260B	11/11/2009	-14	-15	1.57E-03	U	1.57E-03	5.00E-03	7.30E+01	1.54E+03		
B8-1	95-49-8	SW8260B	9/2/2009	-1	-1.5	1.23E-03	U	1.23E-03	5.00E-03	7.30E+01	1.54E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2-Chlorotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-2	95-49-8	SW8260B	9/2/2009	-14	-15	1.20E-03	U	1.20E-03	5.00E-03	7.30E+01	1.54E+03		
B8-3	95-49-8	SW8260B	9/2/2009	-8	-8.5	1.30E-03	U	1.30E-03	5.00E-03	7.30E+01	1.54E+03		
B9 0-1'	95-49-8	SW8260B	11/11/2009	0	-1	1.69E-03	U	1.69E-03	5.00E-03	7.30E+01	1.54E+03		
B9 14-15'	95-49-8	SW8260B	11/11/2009	-14	-15	1.56E-03	U	1.56E-03	5.00E-03	7.30E+01	1.54E+03		

2-Hexanone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	591-78-6	SW8260B	8/31/2009	0	-1	7.63E-04	U	7.63E-04	1.00E-02	2.19E+02	6.20E+01		
B1 0-1'	591-78-6	SW8260B	11/11/2009	0	-1	1.14E-03	U	1.14E-03	1.00E-02	2.19E+02	6.20E+01		
B1 14-15'	591-78-6	SW8260B	11/11/2009	-14	-15	8.31E-04	U	8.31E-04	1.00E-02	2.19E+02	6.20E+01		
B10-1	591-78-6	SW8260B	9/2/2009	-2	-3	9.10E-04	U	9.10E-04	1.00E-02	2.19E+02	6.20E+01		
B10-2	591-78-6	SW8260B	9/2/2009	-13	-14	7.75E-04	U	7.74E-04	1.00E-02	2.19E+02	6.20E+01		
B2 1-1.5	591-78-6	SW8260B	9/1/2009	-1	-1.5	7.21E-04	U	7.21E-04	1.00E-02	2.19E+02	6.20E+01		
B2 21-22.5	591-78-6	SW8260B	9/1/2009	-21	-22.5	8.53E-04	U	8.53E-04	1.00E-02	2.19E+02	6.20E+01		
B3 12-13	591-78-6	SW8260B	8/31/2009	-12	-13	6.86E-04	U	6.86E-04	1.00E-02	2.19E+02	6.20E+01		
B3 2-3	591-78-6	SW8260B	8/31/2009	-2	-3	8.02E-04	U	8.02E-04	1.00E-02	2.19E+02	6.20E+01		
B4 14.5-15	591-78-6	SW8260B	9/1/2009	-14.5	-15	7.79E-04	U	7.79E-04	1.00E-02	2.19E+02	6.20E+01		
B4 2-2.5	591-78-6	SW8260B	9/1/2009	-2	-2.5	8.31E-04	U	8.31E-04	1.00E-02	2.19E+02	6.20E+01		
B5-1	591-78-6	SW8260B	9/2/2009	-1	-1.5	8.18E-04	U	8.18E-04	1.00E-02	2.19E+02	6.20E+01		
B5-2	591-78-6	SW8260B	9/2/2009	-14.5	-15	7.79E-04	U	7.79E-04	1.00E-02	2.19E+02	6.20E+01		
B6-1	591-78-6	SW8260B	9/2/2009	-0.5	-1	7.56E-04	U	7.56E-04	1.00E-02	2.19E+02	6.20E+01		
B6-2	591-78-6	SW8260B	9/2/2009	-14.5	-15	7.79E-04	U	7.79E-04	1.00E-02	2.19E+02	6.20E+01		
B7 0-1'	591-78-6	SW8260B	11/11/2009	0	-1	8.97E-04	U	8.97E-04	1.00E-02	2.19E+02	6.20E+01		
B7 14-15'	591-78-6	SW8260B	11/11/2009	-14	-15	9.83E-04	U	9.83E-04	1.00E-02	2.19E+02	6.20E+01		
B8-1	591-78-6	SW8260B	9/2/2009	-1	-1.5	7.71E-04	U	7.71E-04	1.00E-02	2.19E+02	6.20E+01		
B8-2	591-78-6	SW8260B	9/2/2009	-14	-15	7.50E-04	U	7.50E-04	1.00E-02	2.19E+02	6.20E+01		
B8-3	591-78-6	SW8260B	9/2/2009	-8	-8.5	8.13E-04	U	8.13E-04	1.00E-02	2.19E+02	6.20E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2-Hexanone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B9 0-1'	591-78-6	SW8260B	11/11/2009	0	-1	1.06E-03	U	1.06E-03	1.00E-02	2.19E+02	6.20E+01		
B9 14-15'	591-78-6	SW8260B	11/11/2009	-14	-15	9.69E-04	U	9.69E-04	1.00E-02	2.19E+02	6.20E+01		

2-Methylnaphthalene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	91-57-6	SW8270C	8/31/2009	0	-1	1.63E-01	U	1.63E-01	3.30E-01	1.46E+01	5.48E+02		
B1 0-1'	91-57-6	SW8270C	11/11/2009	0	-1	1.68E-01	U	1.68E-01	3.30E-01	1.46E+01	5.48E+02		
B1 14-15'	91-57-6	SW8270C	11/11/2009	-14	-15	1.52E-01	U	1.51E-01	3.30E-01	1.46E+01	5.48E+02		
B10-1	91-57-6	SW8270C	9/2/2009	-2	-3	1.94E-01	U	1.94E-01	3.30E-01	1.46E+01	5.48E+02		
B10-2	91-57-6	SW8270C	9/2/2009	-13	-14	1.65E-01	U	1.65E-01	3.30E-01	1.46E+01	5.48E+02		
B2 1-1.5	91-57-6	SW8270C	9/1/2009	-1	-1.5	1.54E-01	U	1.54E-01	3.30E-01	1.46E+01	5.48E+02		
B2 21-22.5	91-57-6	SW8270C	9/1/2009	-21	-22.5	1.82E-01	U	1.82E-01	3.30E-01	1.46E+01	5.48E+02		
B3 12-13	91-57-6	SW8270C	8/31/2009	-12	-13	1.46E-01	U	1.46E-01	3.30E-01	1.46E+01	5.48E+02		
B3 2-3	91-57-6	SW8270C	8/31/2009	-2	-3	1.71E-01	U	1.71E-01	3.30E-01	1.46E+01	5.48E+02		
B4 14-14.5	91-57-6	SW8270C	9/1/2009	-14	-14.5	1.64E-01	U	1.64E-01	3.30E-01	1.46E+01	5.48E+02		
B4 2-2.5	91-57-6	SW8270C	9/1/2009	-2	-2.5	1.77E-01	U	1.77E-01	3.30E-01	1.46E+01	5.48E+02		
B5-1	91-57-6	SW8270C	9/2/2009	-1	-1.5	1.75E-01	U	1.75E-01	3.30E-01	1.46E+01	5.48E+02		
B5-2	91-57-6	SW8270C	9/2/2009	-14.5	-15	1.66E-01	U	1.66E-01	3.30E-01	1.46E+01	5.48E+02		
B6-1	91-57-6	SW8270C	9/2/2009	-0.5	-1	1.61E-01	U	1.61E-01	3.30E-01	1.46E+01	5.48E+02		
B6-2	91-57-6	SW8270C	9/2/2009	-14.5	-15	1.66E-01	U	1.66E-01	3.30E-01	1.46E+01	5.48E+02		
B7 0-1'	91-57-6	SW8270C	11/11/2009	0	-1	1.55E-01	U	1.55E-01	3.30E-01	1.46E+01	5.48E+02		
B7 14-15'	91-57-6	SW8270C	11/11/2009	-14	-15	1.60E-01	U	1.60E-01	3.30E-01	1.46E+01	5.48E+02		
B8-1	91-57-6	SW8270C	9/2/2009	-1	-1.5	1.65E-01	U	1.65E-01	3.30E-01	1.46E+01	5.48E+02		
B8-2	91-57-6	SW8270C	9/2/2009	-14	-15	1.60E-01	U	1.60E-01	3.30E-01	1.46E+01	5.48E+02		
B9 0-1'	91-57-6	SW8270C	11/11/2009	0	-1	1.64E-01	U	1.64E-01	3.30E-01	1.46E+01	5.48E+02		
B9 14-15'	91-57-6	SW8270C	11/11/2009	-14	-15	1.60E-01	U	1.59E-01	3.30E-01	1.46E+01	5.48E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2-Methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	95-48-7	SW8270C	8/31/2009	0	-1	5.09E-02	U	5.09E-02	3.30E-01	1.83E+02	7.74E+03		
B1 0-1'	95-48-7	SW8270C	11/11/2009	0	-1	5.26E-02	U	5.26E-02	3.30E-01	1.83E+02	7.74E+03		
B1 14-15'	95-48-7	SW8270C	11/11/2009	-14	-15	4.74E-02	U	4.74E-02	3.30E-01	1.83E+02	7.74E+03		
B10-1	95-48-7	SW8270C	9/2/2009	-2	-3	6.07E-02	U	6.07E-02	3.30E-01	1.83E+02	7.74E+03		
B10-2	95-48-7	SW8270C	9/2/2009	-13	-14	5.17E-02	U	5.17E-02	3.30E-01	1.83E+02	7.74E+03		
B2 1-1.5	95-48-7	SW8270C	9/1/2009	-1	-1.5	4.81E-02	U	4.81E-02	3.30E-01	1.83E+02	7.74E+03		
B2 21-22.5	95-48-7	SW8270C	9/1/2009	-21	-22.5	5.70E-02	U	5.70E-02	3.30E-01	1.83E+02	7.74E+03		
B3 12-13	95-48-7	SW8270C	8/31/2009	-12	-13	4.58E-02	U	4.58E-02	3.30E-01	1.83E+02	7.74E+03		
B3 2-3	95-48-7	SW8270C	8/31/2009	-2	-3	5.35E-02	U	5.35E-02	3.30E-01	1.83E+02	7.74E+03		
B4 14-14.5	95-48-7	SW8270C	9/1/2009	-14	-14.5	5.14E-02	U	5.14E-02	3.30E-01	1.83E+02	7.74E+03		
B4 2-2.5	95-48-7	SW8270C	9/1/2009	-2	-2.5	5.55E-02	U	5.55E-02	3.30E-01	1.83E+02	7.74E+03		
B5-1	95-48-7	SW8270C	9/2/2009	-1	-1.5	5.46E-02	U	5.46E-02	3.30E-01	1.83E+02	7.74E+03		
B5-2	95-48-7	SW8270C	9/2/2009	-14.5	-15	5.20E-02	U	5.20E-02	3.30E-01	1.83E+02	7.74E+03		
B6-1	95-48-7	SW8270C	9/2/2009	-0.5	-1	5.05E-02	U	5.05E-02	3.30E-01	1.83E+02	7.74E+03		
B6-2	95-48-7	SW8270C	9/2/2009	-14.5	-15	5.20E-02	U	5.20E-02	3.30E-01	1.83E+02	7.74E+03		
B7 0-1'	95-48-7	SW8270C	11/11/2009	0	-1	4.86E-02	U	4.86E-02	3.30E-01	1.83E+02	7.74E+03		
B7 14-15'	95-48-7	SW8270C	11/11/2009	-14	-15	5.01E-02	U	5.01E-02	3.30E-01	1.83E+02	7.74E+03		
B8-1	95-48-7	SW8270C	9/2/2009	-1	-1.5	5.15E-02	U	5.15E-02	3.30E-01	1.83E+02	7.74E+03		
B8-2	95-48-7	SW8270C	9/2/2009	-14	-15	5.01E-02	U	5.01E-02	3.30E-01	1.83E+02	7.74E+03		
B9 0-1'	95-48-7	SW8270C	11/11/2009	0	-1	5.13E-02	U	5.13E-02	3.30E-01	1.83E+02	7.74E+03		
B9 14-15'	95-48-7	SW8270C	11/11/2009	-14	-15	4.99E-02	U	4.99E-02	3.30E-01	1.83E+02	7.74E+03		

2-Naphthylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	91-59-8	SW8270C	8/31/2009	0	-1	2.43E-02	U	2.43E-02	6.67E-02	4.73E-02	2.72E+00		
B1 0-1	91-59-8	SW8270C	8/31/2009	0	-1	3.31E-02	U	3.31E-02	3.30E-01	4.73E-02	2.72E+00		
B1 0-1'	91-59-8	SW8270C	11/11/2009	0	-1	2.51E-02	U	2.51E-02	6.60E-02	4.73E-02	2.72E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2-Naphthylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 14-15'	91-59-8	SW8270C	11/11/2009	-14	-15	2.26E-02	U	2.26E-02	6.60E-02	4.73E-02	2.72E+00		
B10-1	91-59-8	SW8270C	9/2/2009	-2	-3	3.95E-02	U	3.95E-02	3.30E-01	4.73E-02	2.72E+00		
B10-1	91-59-8	SW8270C	9/2/2009	-2	-3	2.90E-02	U	2.90E-02	6.67E-02	4.73E-02	2.72E+00		
B10-2	91-59-8	SW8270C	9/2/2009	-13	-14	3.36E-02	U	3.36E-02	3.30E-01	4.73E-02	2.72E+00		
B10-2	91-59-8	SW8270C	9/2/2009	-13	-14	2.47E-02	U	2.47E-02	6.67E-02	4.73E-02	2.72E+00		
B2 1-1.5	91-59-8	SW8270C	9/1/2009	-1	-1.5	2.30E-02	U	2.30E-02	6.67E-02	4.73E-02	2.72E+00		
B2 1-1.5	91-59-8	SW8270C	9/1/2009	-1	-1.5	3.13E-02	U	3.13E-02	3.30E-01	4.73E-02	2.72E+00		
B2 21-22.5	91-59-8	SW8270C	9/1/2009	-21	-22.5	3.71E-02	U	3.71E-02	3.30E-01	4.73E-02	2.72E+00		
B2 21-22.5	91-59-8	SW8270C	9/1/2009	-21	-22.5	2.72E-02	U	2.72E-02	6.67E-02	4.73E-02	2.72E+00		
B3 12-13	91-59-8	SW8270C	8/31/2009	-12	-13	2.19E-02	U	2.19E-02	6.67E-02	4.73E-02	2.72E+00		
B3 12-13	91-59-8	SW8270C	8/31/2009	-12	-13	2.98E-02	U	2.98E-02	3.30E-01	4.73E-02	2.72E+00		
B3 2-3	91-59-8	SW8270C	8/31/2009	-2	-3	2.56E-02	U	2.56E-02	6.67E-02	4.73E-02	2.72E+00		
B3 2-3	91-59-8	SW8270C	8/31/2009	-2	-3	3.48E-02	U	3.48E-02	3.30E-01	4.73E-02	2.72E+00		
B4 14-14.5	91-59-8	SW8270C	9/1/2009	-14	-14.5	3.35E-02	U	3.35E-02	3.30E-01	4.73E-02	2.72E+00		
B4 14-14.5	91-59-8	SW8270C	9/1/2009	-14	-14.5	2.45E-02	U	2.45E-02	6.67E-02	4.73E-02	2.72E+00		
B4 2-2.5	91-59-8	SW8270C	9/1/2009	-2	-2.5	3.61E-02	U	3.61E-02	3.30E-01	4.73E-02	2.72E+00		
B4 2-2.5	91-59-8	SW8270C	9/1/2009	-2	-2.5	2.65E-02	U	2.65E-02	6.67E-02	4.73E-02	2.72E+00		
B5-1	91-59-8	SW8270C	9/2/2009	-1	-1.5	3.55E-02	U	3.55E-02	3.30E-01	4.73E-02	2.72E+00		
B5-1	91-59-8	SW8270C	9/2/2009	-1	-1.5	2.61E-02	U	2.61E-02	6.67E-02	4.73E-02	2.72E+00		
B5-2	91-59-8	SW8270C	9/2/2009	-14.5	-15	2.48E-02	U	2.48E-02	6.67E-02	4.73E-02	2.72E+00		
B5-2	91-59-8	SW8270C	9/2/2009	-14.5	-15	3.38E-02	U	3.38E-02	3.30E-01	4.73E-02	2.72E+00		
B6-1	91-59-8	SW8270C	9/2/2009	-0.5	-1	2.41E-02	U	2.41E-02	6.67E-02	4.73E-02	2.72E+00		
B6-1	91-59-8	SW8270C	9/2/2009	-0.5	-1	3.28E-02	U	3.28E-02	3.30E-01	4.73E-02	2.72E+00		
B6-2	91-59-8	SW8270C	9/2/2009	-14.5	-15	3.38E-02	U	3.38E-02	3.30E-01	4.73E-02	2.72E+00		
B6-2	91-59-8	SW8270C	9/2/2009	-14.5	-15	2.48E-02	U	2.48E-02	6.67E-02	4.73E-02	2.72E+00		
B7 0-1'	91-59-8	SW8270C	11/11/2009	0	-1	2.32E-02	U	2.32E-02	6.60E-02	4.73E-02	2.72E+00		
B7 14-15'	91-59-8	SW8270C	11/11/2009	-14	-15	2.39E-02	U	2.39E-02	6.60E-02	4.73E-02	2.72E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2-Naphthylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-1	91-59-8	SW8270C	9/2/2009	-1	-1.5	3.35E-02	U	3.35E-02	3.30E-01	4.73E-02	2.72E+00		
B8-1	91-59-8	SW8270C	9/2/2009	-1	-1.5	2.46E-02	U	2.46E-02	6.67E-02	4.73E-02	2.72E+00		
B8-2	91-59-8	SW8270C	9/2/2009	-14	-15	3.26E-02	U	3.26E-02	3.30E-01	4.73E-02	2.72E+00		
B8-2	91-59-8	SW8270C	9/2/2009	-14	-15	2.39E-02	U	2.39E-02	6.67E-02	4.73E-02	2.72E+00		
B9 0-1'	91-59-8	SW8270C	11/11/2009	0	-1	2.45E-02	U	2.45E-02	6.60E-02	4.73E-02	2.72E+00		
B9 14-15'	91-59-8	SW8270C	11/11/2009	-14	-15	2.38E-02	U	2.38E-02	6.60E-02	4.73E-02	2.72E+00		

2-Nitroaniline

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	88-74-4	SW8270C	8/31/2009	0	-1	3.36E-02	U	3.36E-02	3.30E-01	1.10E+00	4.65E+01		
B1 0-1'	88-74-4	SW8270C	11/11/2009	0	-1	3.47E-02	U	3.47E-02	3.30E-01	1.10E+00	4.65E+01		
B1 14-15'	88-74-4	SW8270C	11/11/2009	-14	-15	3.13E-02	U	3.13E-02	3.30E-01	1.10E+00	4.65E+01		
B10-1	88-74-4	SW8270C	9/2/2009	-2	-3	4.01E-02	U	4.01E-02	3.30E-01	1.10E+00	4.65E+01		
B10-2	88-74-4	SW8270C	9/2/2009	-13	-14	3.41E-02	U	3.41E-02	3.30E-01	1.10E+00	4.65E+01		
B2 1-1.5	88-74-4	SW8270C	9/1/2009	-1	-1.5	3.18E-02	U	3.18E-02	3.30E-01	1.10E+00	4.65E+01		
B2 21-22.5	88-74-4	SW8270C	9/1/2009	-21	-22.5	3.76E-02	U	3.76E-02	3.30E-01	1.10E+00	4.65E+01		
B3 12-13	88-74-4	SW8270C	8/31/2009	-12	-13	3.02E-02	U	3.02E-02	3.30E-01	1.10E+00	4.65E+01		
B3 2-3	88-74-4	SW8270C	8/31/2009	-2	-3	3.53E-02	U	3.53E-02	3.30E-01	1.10E+00	4.65E+01		
B4 14-14.5	88-74-4	SW8270C	9/1/2009	-14	-14.5	3.39E-02	U	3.39E-02	3.30E-01	1.10E+00	4.65E+01		
B4 2-2.5	88-74-4	SW8270C	9/1/2009	-2	-2.5	3.66E-02	U	3.66E-02	3.30E-01	1.10E+00	4.65E+01		
B5-1	88-74-4	SW8270C	9/2/2009	-1	-1.5	3.60E-02	U	3.60E-02	3.30E-01	1.10E+00	4.65E+01		
B5-2	88-74-4	SW8270C	9/2/2009	-14.5	-15	3.43E-02	U	3.43E-02	3.30E-01	1.10E+00	4.65E+01		
B6-1	88-74-4	SW8270C	9/2/2009	-0.5	-1	3.33E-02	U	3.33E-02	3.30E-01	1.10E+00	4.65E+01		
B6-2	88-74-4	SW8270C	9/2/2009	-14.5	-15	3.43E-02	U	3.43E-02	3.30E-01	1.10E+00	4.65E+01		
B7 0-1'	88-74-4	SW8270C	11/11/2009	0	-1	3.21E-02	U	3.21E-02	3.30E-01	1.10E+00	4.65E+01		
B7 14-15'	88-74-4	SW8270C	11/11/2009	-14	-15	3.31E-02	U	3.31E-02	3.30E-01	1.10E+00	4.65E+01		
B8-1	88-74-4	SW8270C	9/2/2009	-1	-1.5	3.40E-02	U	3.40E-02	3.30E-01	1.10E+00	4.65E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2-Nitroaniline

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-2	88-74-4	SW8270C	9/2/2009	-14	-15	3.30E-02	U	3.30E-02	3.30E-01	1.10E+00	4.65E+01		
B9 0-1'	88-74-4	SW8270C	11/11/2009	0	-1	3.39E-02	U	3.39E-02	3.30E-01	1.10E+00	4.65E+01		
B9 14-15'	88-74-4	SW8270C	11/11/2009	-14	-15	3.29E-02	U	3.29E-02	3.30E-01	1.10E+00	4.65E+01		

2-Nitrophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	88-75-5	SW8270C	8/31/2009	0	-1	4.65E-02	U	4.65E-02	3.30E-01	7.30E+00	3.10E+02		
B1 0-1'	88-75-5	SW8270C	11/11/2009	0	-1	4.81E-02	U	4.81E-02	3.30E-01	7.30E+00	3.10E+02		
B1 14-15'	88-75-5	SW8270C	11/11/2009	-14	-15	4.33E-02	U	4.33E-02	3.30E-01	7.30E+00	3.10E+02		
B10-1	88-75-5	SW8270C	9/2/2009	-2	-3	5.55E-02	U	5.55E-02	3.30E-01	7.30E+00	3.10E+02		
B10-2	88-75-5	SW8270C	9/2/2009	-13	-14	4.72E-02	U	4.72E-02	3.30E-01	7.30E+00	3.10E+02		
B2 1-1.5	88-75-5	SW8270C	9/1/2009	-1	-1.5	4.40E-02	U	4.40E-02	3.30E-01	7.30E+00	3.10E+02		
B2 21-22.5	88-75-5	SW8270C	9/1/2009	-21	-22.5	5.20E-02	U	5.20E-02	3.30E-01	7.30E+00	3.10E+02		
B3 12-13	88-75-5	SW8270C	8/31/2009	-12	-13	4.18E-02	U	4.18E-02	3.30E-01	7.30E+00	3.10E+02		
B3 2-3	88-75-5	SW8270C	8/31/2009	-2	-3	4.89E-02	U	4.89E-02	3.30E-01	7.30E+00	3.10E+02		
B4 14-14.5	88-75-5	SW8270C	9/1/2009	-14	-14.5	4.69E-02	U	4.69E-02	3.30E-01	7.30E+00	3.10E+02		
B4 2-2.5	88-75-5	SW8270C	9/1/2009	-2	-2.5	5.07E-02	U	5.07E-02	3.30E-01	7.30E+00	3.10E+02		
B5-1	88-75-5	SW8270C	9/2/2009	-1	-1.5	4.99E-02	U	4.99E-02	3.30E-01	7.30E+00	3.10E+02		
B5-2	88-75-5	SW8270C	9/2/2009	-14.5	-15	4.75E-02	U	4.75E-02	3.30E-01	7.30E+00	3.10E+02		
B6-1	88-75-5	SW8270C	9/2/2009	-0.5	-1	4.61E-02	U	4.61E-02	3.30E-01	7.30E+00	3.10E+02		
B6-2	88-75-5	SW8270C	9/2/2009	-14.5	-15	4.75E-02	U	4.75E-02	3.30E-01	7.30E+00	3.10E+02		
B7 0-1'	88-75-5	SW8270C	11/11/2009	0	-1	4.44E-02	U	4.44E-02	3.30E-01	7.30E+00	3.10E+02		
B7 14-15'	88-75-5	SW8270C	11/11/2009	-14	-15	4.58E-02	U	4.58E-02	3.30E-01	7.30E+00	3.10E+02		
B8-1	88-75-5	SW8270C	9/2/2009	-1	-1.5	4.70E-02	U	4.70E-02	3.30E-01	7.30E+00	3.10E+02		
B8-2	88-75-5	SW8270C	9/2/2009	-14	-15	4.57E-02	U	4.57E-02	3.30E-01	7.30E+00	3.10E+02		
B9 0-1'	88-75-5	SW8270C	11/11/2009	0	-1	4.69E-02	U	4.69E-02	3.30E-01	7.30E+00	3.10E+02		
B9 14-15'	88-75-5	SW8270C	11/11/2009	-14	-15	4.56E-02	U	4.56E-02	3.30E-01	7.30E+00	3.10E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

2-Nitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 1-2 FT	88-72-2	SW-846 83	8/31/2009	-1	-2	1.18E+00	U	1.18E+00	1.00E-01	3.65E+01	4.67E+02		
B1 13-14	88-72-2	SW-846 83	8/31/2009	-13	-14	1.18E+00	U	1.18E+00	1.00E-01	3.65E+01	4.67E+02		
B10 1 - 2	88-72-2	SW-846 83	9/2/2009	-1	-2	1.40E+00	U	1.40E+00	1.00E-01	3.65E+01	4.67E+02		
B10 11.5 - 1	88-72-2	SW-846 83	9/2/2009	-11.5	-12	1.45E+00	U	1.45E+00	1.00E-01	3.65E+01	4.67E+02		
B2 0.5-1.0	88-72-2	SW-846 83	9/1/2009	-0.5	-1	1.18E+00	U	1.18E+00	1.00E-01	3.65E+01	4.67E+02		
B2 21-21.5	88-72-2	SW-846 83	9/1/2009	-21	-21.5	1.18E+00	U	1.18E+00	1.00E-01	3.65E+01	4.67E+02		
B3 0-1	88-72-2	SW-846 83	8/31/2009	0	-1	1.18E+00	U	1.18E+00	1.00E-01	3.65E+01	4.67E+02		
B3 14-15	88-72-2	SW-846 83	8/31/2009	-14	-15	1.18E+00	U	1.18E+00	1.00E-01	3.65E+01	4.67E+02		
B4 13-14	88-72-2	SW-846 83	9/1/2009	-13	-14	1.18E+00	U	1.18E+00	1.00E-01	3.65E+01	4.67E+02		
B4 3-3.5	88-72-2	SW-846 83	9/1/2009	-3	-3.5	1.18E+00	U	1.18E+00	1.00E-01	3.65E+01	4.67E+02		
B5 14 - 14.	88-72-2	SW-846 83	9/2/2009	-14	-14.5	1.38E+00	U	1.38E+00	1.00E-01	3.65E+01	4.67E+02		
B5 0.5 - 1 M	88-72-2	SW-846 83	9/2/2009	-0.5	-1	1.44E+00	U	1.44E+00	1.00E-01	3.65E+01	4.67E+02		
B6 1 - 1.5	88-72-2	SW-846 83	9/2/2009	-1	-1.5	1.39E+00	U	1.39E+00	1.00E-01	3.65E+01	4.67E+02		
B6 14 - 14.5	88-72-2	SW-846 83	9/2/2009	-14	-14.5	1.36E+00	U	1.36E+00	1.00E-01	3.65E+01	4.67E+02		
B7 0-1 FT	88-72-2	SW-846 83	8/31/2009	0	-1	1.18E+00	U	1.18E+00	1.00E-01	3.65E+01	4.67E+02		
B7 14-15	88-72-2	SW-846 83	8/31/2009	-14	-15	1.18E+00	U	1.18E+00	1.00E-01	3.65E+01	4.67E+02		
B8 13 - 14	88-72-2	SW-846 83	9/2/2009	-13	-14	1.34E+00	U	1.34E+00	1.00E-01	3.65E+01	4.67E+02		
B8 2.75 - 3	88-72-2	SW-846 83	9/2/2009	-2.75	-3	1.48E+00	U	1.48E+00	1.00E-01	3.65E+01	4.67E+02		
B9 14-15	88-72-2	SW-846 83	8/31/2009	-14	-15	1.18E+00	U	1.18E+00	1.00E-01	3.65E+01	4.67E+02		
B9-0-2 FT	88-72-2	SW-846 83	8/31/2009	0	-2	1.18E+00	U	1.18E+00	1.00E-01	3.65E+01	4.67E+02		

3,3´-Dichlorobenzidine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	91-94-1	SW8270C	8/31/2009	0	-1	1.86E-01	U	1.86E-01	3.30E-01	1.89E-02	1.09E+00		
B1 0-1	91-94-1	SW8270C	8/31/2009	0	-1	2.12E-02	U	2.12E-02	6.67E-02	1.89E-02	1.09E+00		
B1 0-1'	91-94-1	SW8270C	11/11/2009	0	-1	2.19E-02	U	2.19E-02	6.60E-02	1.89E-02	1.09E+00		
B1 14-15'	91-94-1	SW8270C	11/11/2009	-14	-15	1.97E-02	U	1.97E-02	6.60E-02	1.89E-02	1.09E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

3,3´-Dichlorobenzidine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-1	91-94-1	SW8270C	9/2/2009	-2	-3	2.22E-01	U	2.22E-01	3.30E-01	1.89E-02	1.09E+00		
B10-1	91-94-1	SW8270C	9/2/2009	-2	-3	2.52E-02	U	2.52E-02	6.67E-02	1.89E-02	1.09E+00		
B10-2	91-94-1	SW8270C	9/2/2009	-13	-14	1.89E-01	U	1.89E-01	3.30E-01	1.89E-02	1.09E+00		
B10-2	91-94-1	SW8270C	9/2/2009	-13	-14	2.15E-02	U	2.15E-02	6.67E-02	1.89E-02	1.09E+00		
B2 1-1.5	91-94-1	SW8270C	9/1/2009	-1	-1.5	1.76E-01	U	1.76E-01	3.30E-01	1.89E-02	1.09E+00		
B2 1-1.5	91-94-1	SW8270C	9/1/2009	-1	-1.5	2.00E-02	U	2.00E-02	6.67E-02	1.89E-02	1.09E+00		
B2 21-22.5	91-94-1	SW8270C	9/1/2009	-21	-22.5	2.37E-02	U	2.37E-02	6.67E-02	1.89E-02	1.09E+00		
B2 21-22.5	91-94-1	SW8270C	9/1/2009	-21	-22.5	2.08E-01	U	2.08E-01	3.30E-01	1.89E-02	1.09E+00		
B3 12-13	91-94-1	SW8270C	8/31/2009	-12	-13	1.90E-02	U	1.90E-02	6.67E-02	1.89E-02	1.09E+00		
B3 12-13	91-94-1	SW8270C	8/31/2009	-12	-13	1.67E-01	U	1.67E-01	3.30E-01	1.89E-02	1.09E+00		
B3 2-3	91-94-1	SW8270C	8/31/2009	-2	-3	2.22E-02	U	2.22E-02	6.67E-02	1.89E-02	1.09E+00		
B3 2-3	91-94-1	SW8270C	8/31/2009	-2	-3	1.96E-01	U	1.96E-01	3.30E-01	1.89E-02	1.09E+00		
B4 14-14.5	91-94-1	SW8270C	9/1/2009	-14	-14.5	1.88E-01	U	1.88E-01	3.30E-01	1.89E-02	1.09E+00		
B4 14-14.5	91-94-1	SW8270C	9/1/2009	-14	-14.5	2.14E-02	U	2.14E-02	6.67E-02	1.89E-02	1.09E+00		
B4 2-2.5	91-94-1	SW8270C	9/1/2009	-2	-2.5	2.31E-02	U	2.31E-02	6.67E-02	1.89E-02	1.09E+00		
B4 2-2.5	91-94-1	SW8270C	9/1/2009	-2	-2.5	2.03E-01	U	2.03E-01	3.30E-01	1.89E-02	1.09E+00		
B5-1	91-94-1	SW8270C	9/2/2009	-1	-1.5	2.00E-01	U	2.00E-01	3.30E-01	1.89E-02	1.09E+00		
B5-1	91-94-1	SW8270C	9/2/2009	-1	-1.5	2.27E-02	U	2.27E-02	6.67E-02	1.89E-02	1.09E+00		
B5-2	91-94-1	SW8270C	9/2/2009	-14.5	-15	2.16E-02	U	2.16E-02	6.67E-02	1.89E-02	1.09E+00		
B5-2	91-94-1	SW8270C	9/2/2009	-14.5	-15	1.90E-01	U	1.90E-01	3.30E-01	1.89E-02	1.09E+00		
B6-1	91-94-1	SW8270C	9/2/2009	-0.5	-1	1.84E-01	U	1.84E-01	3.30E-01	1.89E-02	1.09E+00		
B6-1	91-94-1	SW8270C	9/2/2009	-0.5	-1	2.10E-02	U	2.10E-02	6.67E-02	1.89E-02	1.09E+00		
B6-2	91-94-1	SW8270C	9/2/2009	-14.5	-15	1.90E-01	U	1.90E-01	3.30E-01	1.89E-02	1.09E+00		
B6-2	91-94-1	SW8270C	9/2/2009	-14.5	-15	2.16E-02	U	2.16E-02	6.67E-02	1.89E-02	1.09E+00		
B7 0-1'	91-94-1	SW8270C	11/11/2009	0	-1	2.02E-02	U	2.02E-02	6.60E-02	1.89E-02	1.09E+00		
B7 14-15'	91-94-1	SW8270C	11/11/2009	-14	-15	2.08E-02	U	2.08E-02	6.60E-02	1.89E-02	1.09E+00		
B8-1	91-94-1	SW8270C	9/2/2009	-1	-1.5	2.14E-02	U	2.14E-02	6.67E-02	1.89E-02	1.09E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

3,3´-Dichlorobenzidine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-1	91-94-1	SW8270C	9/2/2009	-1	-1.5	1.88E-01	U	1.88E-01	3.30E-01	1.89E-02	1.09E+00		
B8-2	91-94-1	SW8270C	9/2/2009	-14	-15	2.08E-02	U	2.08E-02	6.67E-02	1.89E-02	1.09E+00		
B8-2	91-94-1	SW8270C	9/2/2009	-14	-15	1.83E-01	U	1.83E-01	3.30E-01	1.89E-02	1.09E+00		
B9 0-1'	91-94-1	SW8270C	11/11/2009	0	-1	2.13E-02	U	2.13E-02	6.60E-02	1.89E-02	1.09E+00		
B9 14-15'	91-94-1	SW8270C	11/11/2009	-14	-15	2.07E-02	U	2.07E-02	6.60E-02	1.89E-02	1.09E+00		

3-Methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	108-39-4	SW8270C	8/31/2009	0	-1	2.79E-01	U	2.79E-01	6.60E-01	1.83E+02	7.74E+03		
B1 0-1'	108-39-4	SW8270C	11/11/2009	0	-1	2.88E-01	U	2.88E-01	6.60E-01	1.83E+02	7.74E+03		
B1 14-15'	108-39-4	SW8270C	11/11/2009	-14	-15	2.60E-01	U	2.60E-01	6.60E-01	1.83E+02	7.74E+03		
B10-1	108-39-4	SW8270C	9/2/2009	-2	-3	3.33E-01	U	3.33E-01	6.60E-01	1.83E+02	7.74E+03		
B10-2	108-39-4	SW8270C	9/2/2009	-13	-14	2.83E-01	U	2.83E-01	6.60E-01	1.83E+02	7.74E+03		
B2 1-1.5	108-39-4	SW8270C	9/1/2009	-1	-1.5	2.64E-01	U	2.64E-01	6.60E-01	1.83E+02	7.74E+03		
B2 21-22.5	108-39-4	SW8270C	9/1/2009	-21	-22.5	3.12E-01	U	3.12E-01	6.60E-01	1.83E+02	7.74E+03		
B3 12-13	108-39-4	SW8270C	8/31/2009	-12	-13	2.51E-01	U	2.51E-01	6.60E-01	1.83E+02	7.74E+03		
B3 2-3	108-39-4	SW8270C	8/31/2009	-2	-3	2.93E-01	U	2.93E-01	6.60E-01	1.83E+02	7.74E+03		
B4 14-14.5	108-39-4	SW8270C	9/1/2009	-14	-14.5	2.82E-01	U	2.82E-01	6.60E-01	1.83E+02	7.74E+03		
B4 2-2.5	108-39-4	SW8270C	9/1/2009	-2	-2.5	3.04E-01	U	3.04E-01	6.60E-01	1.83E+02	7.74E+03		
B5-1	108-39-4	SW8270C	9/2/2009	-1	-1.5	2.99E-01	U	2.99E-01	6.60E-01	1.83E+02	7.74E+03		
B5-2	108-39-4	SW8270C	9/2/2009	-14.5	-15	2.85E-01	U	2.85E-01	6.60E-01	1.83E+02	7.74E+03		
B6-1	108-39-4	SW8270C	9/2/2009	-0.5	-1	2.77E-01	U	2.76E-01	6.60E-01	1.83E+02	7.74E+03		
B6-2	108-39-4	SW8270C	9/2/2009	-14.5	-15	2.85E-01	U	2.85E-01	6.60E-01	1.83E+02	7.74E+03		
B7 0-1'	108-39-4	SW8270C	11/11/2009	0	-1	2.66E-01	U	2.66E-01	6.60E-01	1.83E+02	7.74E+03		
B7 14-15'	108-39-4	SW8270C	11/11/2009	-14	-15	2.75E-01	U	2.75E-01	6.60E-01	1.83E+02	7.74E+03		
B8-1	108-39-4	SW8270C	9/2/2009	-1	-1.5	2.82E-01	U	2.82E-01	6.60E-01	1.83E+02	7.74E+03		
B8-2	108-39-4	SW8270C	9/2/2009	-14	-15	2.74E-01	U	2.74E-01	6.60E-01	1.83E+02	7.74E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

3-Methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B9 0-1'	108-39-4	SW8270C	11/11/2009	0	-1	2.81E-01	U	2.81E-01	6.60E-01	1.83E+02	7.74E+03		
B9 14-15'	108-39-4	SW8270C	11/11/2009	-14	-15	2.73E-01	U	2.73E-01	6.60E-01	1.83E+02	7.74E+03		

3-Nitroaniline

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	99-09-2	SW8270C	8/31/2009	0	-1	8.20E-02	U	8.20E-02	3.30E-01	1.10E+00	4.65E+01		
B1 0-1'	99-09-2	SW8270C	11/11/2009	0	-1	8.47E-02	U	8.47E-02	3.30E-01	1.10E+00	4.65E+01		
B1 14-15'	99-09-2	SW8270C	11/11/2009	-14	-15	7.63E-02	U	7.63E-02	3.30E-01	1.10E+00	4.65E+01		
B10-1	99-09-2	SW8270C	9/2/2009	-2	-3	9.78E-02	U	9.78E-02	3.30E-01	1.10E+00	4.65E+01		
B10-2	99-09-2	SW8270C	9/2/2009	-13	-14	8.32E-02	U	8.32E-02	3.30E-01	1.10E+00	4.65E+01		
B2 1-1.5	99-09-2	SW8270C	9/1/2009	-1	-1.5	7.75E-02	U	7.75E-02	3.30E-01	1.10E+00	4.65E+01		
B2 21-22.5	99-09-2	SW8270C	9/1/2009	-21	-22.5	9.17E-02	U	9.17E-02	3.30E-01	1.10E+00	4.65E+01		
B3 12-13	99-09-2	SW8270C	8/31/2009	-12	-13	7.37E-02	U	7.37E-02	3.30E-01	1.10E+00	4.65E+01		
B3 2-3	99-09-2	SW8270C	8/31/2009	-2	-3	8.62E-02	U	8.62E-02	3.30E-01	1.10E+00	4.65E+01		
B4 14-14.5	99-09-2	SW8270C	9/1/2009	-14	-14.5	8.27E-02	U	8.27E-02	3.30E-01	1.10E+00	4.65E+01		
B4 2-2.5	99-09-2	SW8270C	9/1/2009	-2	-2.5	8.94E-02	U	8.94E-02	3.30E-01	1.10E+00	4.65E+01		
B5-1	99-09-2	SW8270C	9/2/2009	-1	-1.5	8.79E-02	U	8.79E-02	3.30E-01	1.10E+00	4.65E+01		
B5-2	99-09-2	SW8270C	9/2/2009	-14.5	-15	8.37E-02	U	8.37E-02	3.30E-01	1.10E+00	4.65E+01		
B6-1	99-09-2	SW8270C	9/2/2009	-0.5	-1	8.12E-02	U	8.12E-02	3.30E-01	1.10E+00	4.65E+01		
B6-2	99-09-2	SW8270C	9/2/2009	-14.5	-15	8.37E-02	U	8.37E-02	3.30E-01	1.10E+00	4.65E+01		
B7 0-1'	99-09-2	SW8270C	11/11/2009	0	-1	7.83E-02	U	7.83E-02	3.30E-01	1.10E+00	4.65E+01		
B7 14-15'	99-09-2	SW8270C	11/11/2009	-14	-15	8.07E-02	U	8.07E-02	3.30E-01	1.10E+00	4.65E+01		
B8-1	99-09-2	SW8270C	9/2/2009	-1	-1.5	8.28E-02	U	8.28E-02	3.30E-01	1.10E+00	4.65E+01		
B8-2	99-09-2	SW8270C	9/2/2009	-14	-15	8.06E-02	U	8.06E-02	3.30E-01	1.10E+00	4.65E+01		
B9 0-1'	99-09-2	SW8270C	11/11/2009	0	-1	8.26E-02	U	8.26E-02	3.30E-01	1.10E+00	4.65E+01		
B9 14-15'	99-09-2	SW8270C	11/11/2009	-14	-15	8.03E-02	U	8.03E-02	3.30E-01	1.10E+00	4.65E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

3-Nitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 1-2 FT	99-08-1	SW-846 83	8/31/2009	-1	-2	7.53E-01	U	7.53E-01	1.00E-01	3.65E+01	4.40E+02		
B1 13-14	99-08-1	SW-846 83	8/31/2009	-13	-14	7.53E-01	U	7.53E-01	1.00E-01	3.65E+01	4.40E+02		
B10 1 - 2	99-08-1	SW-846 83	9/2/2009	-1	-2	8.94E-01	U	8.94E-01	1.00E-01	3.65E+01	4.40E+02		
B10 11.5 - 1	99-08-1	SW-846 83	9/2/2009	-11.5	-12	9.25E-01	U	9.25E-01	1.00E-01	3.65E+01	4.40E+02		
B2 0.5-1.0	99-08-1	SW-846 83	9/1/2009	-0.5	-1	7.53E-01	U	7.53E-01	1.00E-01	3.65E+01	4.40E+02		
B2 21-21.5	99-08-1	SW-846 83	9/1/2009	-21	-21.5	7.53E-01	U	7.53E-01	1.00E-01	3.65E+01	4.40E+02		
B3 0-1	99-08-1	SW-846 83	8/31/2009	0	-1	7.53E-01	U	7.53E-01	1.00E-01	3.65E+01	4.40E+02		
B3 14-15	99-08-1	SW-846 83	8/31/2009	-14	-15	7.53E-01	U	7.53E-01	1.00E-01	3.65E+01	4.40E+02		
B4 13-14	99-08-1	SW-846 83	9/1/2009	-13	-14	7.53E-01	U	7.53E-01	1.00E-01	3.65E+01	4.40E+02		
B4 3-3.5	99-08-1	SW-846 83	9/1/2009	-3	-3.5	7.53E-01	U	7.53E-01	1.00E-01	3.65E+01	4.40E+02		
B5 14 - 14.	99-08-1	SW-846 83	9/2/2009	-14	-14.5	8.83E-01	U	8.83E-01	1.00E-01	3.65E+01	4.40E+02		
B5 0.5 - 1 M	99-08-1	SW-846 83	9/2/2009	-0.5	-1	9.19E-01	U	9.19E-01	1.00E-01	3.65E+01	4.40E+02		
B6 1 - 1.5	99-08-1	SW-846 83	9/2/2009	-1	-1.5	8.86E-01	U	8.86E-01	1.00E-01	3.65E+01	4.40E+02		
B6 14 - 14.5	99-08-1	SW-846 83	9/2/2009	-14	-14.5	8.67E-01	U	8.67E-01	1.00E-01	3.65E+01	4.40E+02		
B7 0-1 FT	99-08-1	SW-846 83	8/31/2009	0	-1	7.53E-01	U	7.53E-01	1.00E-01	3.65E+01	4.40E+02		
B7 14-15	99-08-1	SW-846 83	8/31/2009	-14	-15	7.53E-01	U	7.53E-01	1.00E-01	3.65E+01	4.40E+02		
B8 13 - 14	99-08-1	SW-846 83	9/2/2009	-13	-14	8.55E-01	U	8.55E-01	1.00E-01	3.65E+01	4.40E+02		
B8 2.75 - 3	99-08-1	SW-846 83	9/2/2009	-2.75	-3	9.45E-01	U	9.45E-01	1.00E-01	3.65E+01	4.40E+02		
B9 14-15	99-08-1	SW-846 83	8/31/2009	-14	-15	7.53E-01	U	7.53E-01	1.00E-01	3.65E+01	4.40E+02		
B9-0-2 FT	99-08-1	SW-846 83	8/31/2009	0	-2	7.53E-01	U	7.53E-01	1.00E-01	3.65E+01	4.40E+02		

4,6-Dinitro-2-methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	534-52-1	SW8270C	8/31/2009	0	-1	1.28E-01	U	1.28E-01	3.30E-01	7.30E+00	3.10E+02		
B1 0-1'	534-52-1	SW8270C	11/11/2009	0	-1	1.32E-01	U	1.32E-01	3.30E-01	7.30E+00	3.10E+02		
B1 14-15'	534-52-1	SW8270C	11/11/2009	-14	-15	1.19E-01	U	1.19E-01	3.30E-01	7.30E+00	3.10E+02		
B10-1	534-52-1	SW8270C	9/2/2009	-2	-3	1.53E-01	U	1.53E-01	3.30E-01	7.30E+00	3.10E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

4,6-Dinitro-2-methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-2	534-52-1	SW8270C	9/2/2009	-13	-14	1.30E-01	U	1.30E-01	3.30E-01	7.30E+00	3.10E+02		
B2 1-1.5	534-52-1	SW8270C	9/1/2009	-1	-1.5	1.21E-01	U	1.21E-01	3.30E-01	7.30E+00	3.10E+02		
B2 21-22.5	534-52-1	SW8270C	9/1/2009	-21	-22.5	1.43E-01	U	1.43E-01	3.30E-01	7.30E+00	3.10E+02		
B3 12-13	534-52-1	SW8270C	8/31/2009	-12	-13	1.15E-01	U	1.15E-01	3.30E-01	7.30E+00	3.10E+02		
B3 2-3	534-52-1	SW8270C	8/31/2009	-2	-3	1.35E-01	U	1.34E-01	3.30E-01	7.30E+00	3.10E+02		
B4 14-14.5	534-52-1	SW8270C	9/1/2009	-14	-14.5	1.29E-01	U	1.29E-01	3.30E-01	7.30E+00	3.10E+02		
B4 2-2.5	534-52-1	SW8270C	9/1/2009	-2	-2.5	1.39E-01	U	1.39E-01	3.30E-01	7.30E+00	3.10E+02		
B5-1	534-52-1	SW8270C	9/2/2009	-1	-1.5	1.37E-01	U	1.37E-01	3.30E-01	7.30E+00	3.10E+02		
B5-2	534-52-1	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	7.30E+00	3.10E+02		
B6-1	534-52-1	SW8270C	9/2/2009	-0.5	-1	1.27E-01	U	1.27E-01	3.30E-01	7.30E+00	3.10E+02		
B6-2	534-52-1	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	7.30E+00	3.10E+02		
B7 0-1'	534-52-1	SW8270C	11/11/2009	0	-1	1.22E-01	U	1.22E-01	3.30E-01	7.30E+00	3.10E+02		
B7 14-15'	534-52-1	SW8270C	11/11/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	7.30E+00	3.10E+02		
B8-1	534-52-1	SW8270C	9/2/2009	-1	-1.5	1.29E-01	U	1.29E-01	3.30E-01	7.30E+00	3.10E+02		
B8-2	534-52-1	SW8270C	9/2/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	7.30E+00	3.10E+02		
B9 0-1'	534-52-1	SW8270C	11/11/2009	0	-1	1.29E-01	U	1.29E-01	3.30E-01	7.30E+00	3.10E+02		
B9 14-15'	534-52-1	SW8270C	11/11/2009	-14	-15	1.25E-01	U	1.25E-01	3.30E-01	7.30E+00	3.10E+02		

4-Amino-2,6-dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 1-2 FT	19406-51-0	SW-846 83	8/31/2009	-1	-2	2.41E+00	U	2.41E+00	1.00E-01	6.08E-01	2.58E+01		
B1 13-14	19406-51-0	SW-846 83	8/31/2009	-13	-14	2.41E+00	U	2.41E+00	1.00E-01	6.08E-01	2.58E+01		
B10 1 - 2	19406-51-0	SW-846 83	9/2/2009	-1	-2	2.86E+00	U	2.86E+00	1.00E-01	6.08E-01	2.58E+01		
B10 11.5 - 1	19406-51-0	SW-846 83	9/2/2009	-11.5	-12	2.96E+00	U	2.96E+00	1.00E-01	6.08E-01	2.58E+01		
B2 0.5-1.0	19406-51-0	SW-846 83	9/1/2009	-0.5	-1	2.41E+00	U	2.41E+00	1.00E-01	6.08E-01	2.58E+01		
B2 21-21.5	19406-51-0	SW-846 83	9/1/2009	-21	-21.5	2.41E+00	U	2.41E+00	1.00E-01	6.08E-01	2.58E+01		
B3 0-1	19406-51-0	SW-846 83	8/31/2009	0	-1	2.41E+00	U	2.41E+00	1.00E-01	6.08E-01	2.58E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

4-Amino-2,6-dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 14-15	19406-51-0	SW-846 83	8/31/2009	-14	-15	2.41E+00	U	2.41E+00	1.00E-01	6.08E-01	2.58E+01		
B4 13-14	19406-51-0	SW-846 83	9/1/2009	-13	-14	2.41E+00	U	2.41E+00	1.00E-01	6.08E-01	2.58E+01		
B4 3-3.5	19406-51-0	SW-846 83	9/1/2009	-3	-3.5	2.41E+00	U	2.41E+00	1.00E-01	6.08E-01	2.58E+01		
B5 14 - 14.	19406-51-0	SW-846 83	9/2/2009	-14	-14.5	2.83E+00	U	2.83E+00	1.00E-01	6.08E-01	2.58E+01		
B5 0.5 - 1 M	19406-51-0	SW-846 83	9/2/2009	-0.5	-1	2.94E+00	U	2.94E+00	1.00E-01	6.08E-01	2.58E+01		
B6 1 - 1.5	19406-51-0	SW-846 83	9/2/2009	-1	-1.5	2.84E+00	U	2.84E+00	1.00E-01	6.08E-01	2.58E+01		
B6 14 - 14.5	19406-51-0	SW-846 83	9/2/2009	-14	-14.5	2.77E+00	U	2.77E+00	1.00E-01	6.08E-01	2.58E+01		
B7 0-1 FT	19406-51-0	SW-846 83	8/31/2009	0	-1	2.41E+00	U	2.41E+00	1.00E-01	6.08E-01	2.58E+01		
B7 14-15	19406-51-0	SW-846 83	8/31/2009	-14	-15	2.41E+00	U	2.41E+00	1.00E-01	6.08E-01	2.58E+01		
B8 13 - 14	19406-51-0	SW-846 83	9/2/2009	-13	-14	2.74E+00	U	2.74E+00	1.00E-01	6.08E-01	2.58E+01		
B8 2.75 - 3	19406-51-0	SW-846 83	9/2/2009	-2.75	-3	3.02E+00	U	3.02E+00	1.00E-01	6.08E-01	2.58E+01		
B9 14-15	19406-51-0	SW-846 83	8/31/2009	-14	-15	2.41E+00	U	2.41E+00	1.00E-01	6.08E-01	2.58E+01		
B9-0-2 FT	19406-51-0	SW-846 83	8/31/2009	0	-2	2.41E+00	U	2.41E+00	1.00E-01	6.08E-01	2.58E+01		

4-Bromophenyl phenyl ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	101-55-3	SW8270C	8/31/2009	0	-1	3.85E-02	U	3.85E-02	3.30E-01	3.53E-01	3.12E-01		
B1 0-1'	101-55-3	SW8270C	11/11/2009	0	-1	1.08E-02	U	1.08E-02	3.30E-02	3.53E-01	3.12E-01		
B1 14-15'	101-55-3	SW8270C	11/11/2009	-14	-15	9.70E-03	U	9.74E-03	3.30E-02	3.53E-01	3.12E-01		
B10-1	101-55-3	SW8270C	9/2/2009	-2	-3	4.59E-02	U	4.59E-02	3.30E-01	3.53E-01	3.12E-01		
B10-2	101-55-3	SW8270C	9/2/2009	-13	-14	3.91E-02	U	3.91E-02	3.30E-01	3.53E-01	3.12E-01		
B2 1-1.5	101-55-3	SW8270C	9/1/2009	-1	-1.5	3.64E-02	U	3.64E-02	3.30E-01	3.53E-01	3.12E-01		
B2 21-22.5	101-55-3	SW8270C	9/1/2009	-21	-22.5	4.30E-02	U	4.30E-02	3.30E-01	3.53E-01	3.12E-01		
B3 12-13	101-55-3	SW8270C	8/31/2009	-12	-13	3.46E-02	U	3.46E-02	3.30E-01	3.53E-01	3.12E-01		
B3 2-3	101-55-3	SW8270C	8/31/2009	-2	-3	4.05E-02	U	4.05E-02	3.30E-01	3.53E-01	3.12E-01		
B4 14-14.5	101-55-3	SW8270C	9/1/2009	-14	-14.5	3.88E-02	U	3.88E-02	3.30E-01	3.53E-01	3.12E-01		
B4 2-2.5	101-55-3	SW8270C	9/1/2009	-2	-2.5	4.20E-02	U	4.20E-02	3.30E-01	3.53E-01	3.12E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

4-Bromophenyl phenyl ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B5-1	101-55-3	SW8270C	9/2/2009	-1	-1.5	4.13E-02	U	4.13E-02	3.30E-01	3.53E-01	3.12E-01		
B5-2	101-55-3	SW8270C	9/2/2009	-14.5	-15	3.93E-02	U	3.93E-02	3.30E-01	3.53E-01	3.12E-01		
B6-1	101-55-3	SW8270C	9/2/2009	-0.5	-1	3.81E-02	U	3.81E-02	3.30E-01	3.53E-01	3.12E-01		
B6-2	101-55-3	SW8270C	9/2/2009	-14.5	-15	3.93E-02	U	3.93E-02	3.30E-01	3.53E-01	3.12E-01		
B7 0-1'	101-55-3	SW8270C	11/11/2009	0	-1	1.00E-02	U	9.99E-03	3.30E-02	3.53E-01	3.12E-01		
B7 14-15'	101-55-3	SW8270C	11/11/2009	-14	-15	1.03E-02	U	1.03E-02	3.30E-02	3.53E-01	3.12E-01		
B8-1	101-55-3	SW8270C	9/2/2009	-1	-1.5	3.89E-02	U	3.89E-02	3.30E-01	3.53E-01	3.12E-01		
B8-2	101-55-3	SW8270C	9/2/2009	-14	-15	3.78E-02	U	3.78E-02	3.30E-01	3.53E-01	3.12E-01		
B9 0-1'	101-55-3	SW8270C	11/11/2009	0	-1	1.06E-02	U	1.06E-02	3.30E-02	3.53E-01	3.12E-01		
B9 14-15'	101-55-3	SW8270C	11/11/2009	-14	-15	1.03E-02	U	1.03E-02	3.30E-02	3.53E-01	3.12E-01		

4-Bromophenylphenylether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	101-55-3	SW8270C	8/31/2009	0	-1	1.04E-02	U	1.04E-02	3.33E-02	3.53E-01	3.12E-01		
B10-1	101-55-3	SW8270C	9/2/2009	-2	-3	1.24E-02	U	1.24E-02	3.33E-02	3.53E-01	3.12E-01		
B10-2	101-55-3	SW8270C	9/2/2009	-13	-14	1.06E-02	U	1.06E-02	3.33E-02	3.53E-01	3.12E-01		
B2 1-1.5	101-55-3	SW8270C	9/1/2009	-1	-1.5	9.85E-03	U	9.85E-03	3.33E-02	3.53E-01	3.12E-01		
B2 21-22.5	101-55-3	SW8270C	9/1/2009	-21	-22.5	1.17E-02	U	1.17E-02	3.33E-02	3.53E-01	3.12E-01		
B3 12-13	101-55-3	SW8270C	8/31/2009	-12	-13	9.37E-03	U	9.37E-03	3.33E-02	3.53E-01	3.12E-01		
B3 2-3	101-55-3	SW8270C	8/31/2009	-2	-3	1.10E-02	U	1.10E-02	3.33E-02	3.53E-01	3.12E-01		
B4 14-14.5	101-55-3	SW8270C	9/1/2009	-14	-14.5	1.05E-02	U	1.05E-02	3.33E-02	3.53E-01	3.12E-01		
B4 2-2.5	101-55-3	SW8270C	9/1/2009	-2	-2.5	1.14E-02	U	1.14E-02	3.33E-02	3.53E-01	3.12E-01		
B5-1	101-55-3	SW8270C	9/2/2009	-1	-1.5	1.12E-02	U	1.12E-02	3.33E-02	3.53E-01	3.12E-01		
B5-2	101-55-3	SW8270C	9/2/2009	-14.5	-15	1.06E-02	U	1.06E-02	3.33E-02	3.53E-01	3.12E-01		
B6-1	101-55-3	SW8270C	9/2/2009	-0.5	-1	1.03E-02	U	1.03E-02	3.33E-02	3.53E-01	3.12E-01		
B6-2	101-55-3	SW8270C	9/2/2009	-14.5	-15	1.06E-02	U	1.06E-02	3.33E-02	3.53E-01	3.12E-01		
B8-1	101-55-3	SW8270C	9/2/2009	-1	-1.5	1.05E-02	U	1.05E-02	3.33E-02	3.53E-01	3.12E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

4-Bromophenylphenylether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-2	101-55-3	SW8270C	9/2/2009	-14	-15	1.02E-02	U	1.02E-02	3.33E-02	3.53E-01	3.12E-01		

4-Chloro-3-methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	59-50-7	SW8270C	8/31/2009	0	-1	4.66E-02	U	4.66E-02	3.30E-01	1.83E+01	7.74E+02		
B1 0-1'	59-50-7	SW8270C	11/11/2009	0	-1	4.82E-02	U	4.82E-02	3.30E-01	1.83E+01	7.74E+02		
B1 14-15'	59-50-7	SW8270C	11/11/2009	-14	-15	4.34E-02	U	4.34E-02	3.30E-01	1.83E+01	7.74E+02		
B10-1	59-50-7	SW8270C	9/2/2009	-2	-3	5.56E-02	U	5.56E-02	3.30E-01	1.83E+01	7.74E+02		
B10-2	59-50-7	SW8270C	9/2/2009	-13	-14	4.73E-02	U	4.73E-02	3.30E-01	1.83E+01	7.74E+02		
B2 1-1.5	59-50-7	SW8270C	9/1/2009	-1	-1.5	4.41E-02	U	4.41E-02	3.30E-01	1.83E+01	7.74E+02		
B2 21-22.5	59-50-7	SW8270C	9/1/2009	-21	-22.5	5.21E-02	U	5.21E-02	3.30E-01	1.83E+01	7.74E+02		
B3 12-13	59-50-7	SW8270C	8/31/2009	-12	-13	4.19E-02	U	4.19E-02	3.30E-01	1.83E+01	7.74E+02		
B3 2-3	59-50-7	SW8270C	8/31/2009	-2	-3	4.90E-02	U	4.90E-02	3.30E-01	1.83E+01	7.74E+02		
B4 14-14.5	59-50-7	SW8270C	9/1/2009	-14	-14.5	4.71E-02	U	4.71E-02	3.30E-01	1.83E+01	7.74E+02		
B4 2-2.5	59-50-7	SW8270C	9/1/2009	-2	-2.5	5.08E-02	U	5.08E-02	3.30E-01	1.83E+01	7.74E+02		
B5-1	59-50-7	SW8270C	9/2/2009	-1	-1.5	5.00E-02	U	5.00E-02	3.30E-01	1.83E+01	7.74E+02		
B5-2	59-50-7	SW8270C	9/2/2009	-14.5	-15	4.76E-02	U	4.76E-02	3.30E-01	1.83E+01	7.74E+02		
B6-1	59-50-7	SW8270C	9/2/2009	-0.5	-1	4.62E-02	U	4.62E-02	3.30E-01	1.83E+01	7.74E+02		
B6-2	59-50-7	SW8270C	9/2/2009	-14.5	-15	4.76E-02	U	4.76E-02	3.30E-01	1.83E+01	7.74E+02		
B7 0-1'	59-50-7	SW8270C	11/11/2009	0	-1	4.45E-02	U	4.45E-02	3.30E-01	1.83E+01	7.74E+02		
B7 14-15'	59-50-7	SW8270C	11/11/2009	-14	-15	4.59E-02	U	4.59E-02	3.30E-01	1.83E+01	7.74E+02		
B8-1	59-50-7	SW8270C	9/2/2009	-1	-1.5	4.71E-02	U	4.71E-02	3.30E-01	1.83E+01	7.74E+02		
B8-2	59-50-7	SW8270C	9/2/2009	-14	-15	4.58E-02	U	4.58E-02	3.30E-01	1.83E+01	7.74E+02		
B9 0-1'	59-50-7	SW8270C	11/11/2009	0	-1	4.70E-02	U	4.70E-02	3.30E-01	1.83E+01	7.74E+02		
B9 14-15'	59-50-7	SW8270C	11/11/2009	-14	-15	4.57E-02	U	4.57E-02	3.30E-01	1.83E+01	7.74E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

4-Chloroaniline

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	106-47-8	SW8270C	8/31/2009	0	-1	4.87E-02	U	4.87E-02	3.30E-01	1.46E+01	6.20E+02		
B1 0-1'	106-47-8	SW8270C	11/11/2009	0	-1	5.04E-02	U	5.04E-02	3.30E-01	1.46E+01	6.20E+02		
B1 14-15'	106-47-8	SW8270C	11/11/2009	-14	-15	4.53E-02	U	4.53E-02	3.30E-01	1.46E+01	6.20E+02		
B10-1	106-47-8	SW8270C	9/2/2009	-2	-3	5.81E-02	U	5.81E-02	3.30E-01	1.46E+01	6.20E+02		
B10-2	106-47-8	SW8270C	9/2/2009	-13	-14	4.95E-02	U	4.95E-02	3.30E-01	1.46E+01	6.20E+02		
B2 1-1.5	106-47-8	SW8270C	9/1/2009	-1	-1.5	4.60E-02	U	4.60E-02	3.30E-01	1.46E+01	6.20E+02		
B2 21-22.5	106-47-8	SW8270C	9/1/2009	-21	-22.5	5.45E-02	U	5.45E-02	3.30E-01	1.46E+01	6.20E+02		
B3 12-13	106-47-8	SW8270C	8/31/2009	-12	-13	4.38E-02	U	4.38E-02	3.30E-01	1.46E+01	6.20E+02		
B3 2-3	106-47-8	SW8270C	8/31/2009	-2	-3	5.12E-02	U	5.12E-02	3.30E-01	1.46E+01	6.20E+02		
B4 14-14.5	106-47-8	SW8270C	9/1/2009	-14	-14.5	4.92E-02	U	4.92E-02	3.30E-01	1.46E+01	6.20E+02		
B4 2-2.5	106-47-8	SW8270C	9/1/2009	-2	-2.5	5.31E-02	U	5.31E-02	3.30E-01	1.46E+01	6.20E+02		
B5-1	106-47-8	SW8270C	9/2/2009	-1	-1.5	5.22E-02	U	5.22E-02	3.30E-01	1.46E+01	6.20E+02		
B5-2	106-47-8	SW8270C	9/2/2009	-14.5	-15	4.98E-02	U	4.98E-02	3.30E-01	1.46E+01	6.20E+02		
B6-1	106-47-8	SW8270C	9/2/2009	-0.5	-1	4.83E-02	U	4.83E-02	3.30E-01	1.46E+01	6.20E+02		
B6-2	106-47-8	SW8270C	9/2/2009	-14.5	-15	4.98E-02	U	4.98E-02	3.30E-01	1.46E+01	6.20E+02		
B7 0-1'	106-47-8	SW8270C	11/11/2009	0	-1	4.65E-02	U	4.65E-02	3.30E-01	1.46E+01	6.20E+02		
B7 14-15'	106-47-8	SW8270C	11/11/2009	-14	-15	4.79E-02	U	4.79E-02	3.30E-01	1.46E+01	6.20E+02		
B8-1	106-47-8	SW8270C	9/2/2009	-1	-1.5	4.92E-02	U	4.92E-02	3.30E-01	1.46E+01	6.20E+02		
B8-2	106-47-8	SW8270C	9/2/2009	-14	-15	4.79E-02	U	4.79E-02	3.30E-01	1.46E+01	6.20E+02		
B9 0-1'	106-47-8	SW8270C	11/11/2009	0	-1	4.91E-02	U	4.91E-02	3.30E-01	1.46E+01	6.20E+02		
B9 14-15'	106-47-8	SW8270C	11/11/2009	-14	-15	4.77E-02	U	4.77E-02	3.30E-01	1.46E+01	6.20E+02		

4-Chlorophenyl phenyl ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7005-72-3	SW8270C	8/31/2009	0	-1	2.78E-02	U	2.78E-02	3.30E-01	3.00E-02	2.77E-01		
B1 0-1'	7005-72-3	SW8270C	11/11/2009	0	-1	6.10E-03	U	6.13E-03	3.30E-02	3.00E-02	2.77E-01		
B1 14-15'	7005-72-3	SW8270C	11/11/2009	-14	-15	5.50E-03	U	5.52E-03	3.30E-02	3.00E-02	2.77E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

4-Chlorophenyl phenyl ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-1	7005-72-3	SW8270C	9/2/2009	-2	-3	3.31E-02	U	3.31E-02	3.30E-01	3.00E-02	2.77E-01		
B10-2	7005-72-3	SW8270C	9/2/2009	-13	-14	2.82E-02	U	2.82E-02	3.30E-01	3.00E-02	2.77E-01		
B2 1-1.5	7005-72-3	SW8270C	9/1/2009	-1	-1.5	2.63E-02	U	2.63E-02	3.30E-01	3.00E-02	2.77E-01		
B2 21-22.5	7005-72-3	SW8270C	9/1/2009	-21	-22.5	3.11E-02	U	3.11E-02	3.30E-01	3.00E-02	2.77E-01		
B3 12-13	7005-72-3	SW8270C	8/31/2009	-12	-13	2.50E-02	U	2.50E-02	3.30E-01	3.00E-02	2.77E-01		
B3 2-3	7005-72-3	SW8270C	8/31/2009	-2	-3	2.92E-02	U	2.92E-02	3.30E-01	3.00E-02	2.77E-01		
B4 14-14.5	7005-72-3	SW8270C	9/1/2009	-14	-14.5	2.81E-02	U	2.81E-02	3.30E-01	3.00E-02	2.77E-01		
B4 2-2.5	7005-72-3	SW8270C	9/1/2009	-2	-2.5	3.03E-02	U	3.03E-02	3.30E-01	3.00E-02	2.77E-01		
B5-1	7005-72-3	SW8270C	9/2/2009	-1	-1.5	2.98E-02	U	2.98E-02	3.30E-01	3.00E-02	2.77E-01		
B5-2	7005-72-3	SW8270C	9/2/2009	-14.5	-15	2.84E-02	U	2.84E-02	3.30E-01	3.00E-02	2.77E-01		
B6-1	7005-72-3	SW8270C	9/2/2009	-0.5	-1	2.75E-02	U	2.75E-02	3.30E-01	3.00E-02	2.77E-01		
B6-2	7005-72-3	SW8270C	9/2/2009	-14.5	-15	2.84E-02	U	2.84E-02	3.30E-01	3.00E-02	2.77E-01		
B7 0-1'	7005-72-3	SW8270C	11/11/2009	0	-1	5.70E-03	U	5.66E-03	3.30E-02	3.00E-02	2.77E-01		
B7 14-15'	7005-72-3	SW8270C	11/11/2009	-14	-15	5.80E-03	U	5.84E-03	3.30E-02	3.00E-02	2.77E-01		
B8-1	7005-72-3	SW8270C	9/2/2009	-1	-1.5	2.81E-02	U	2.81E-02	3.30E-01	3.00E-02	2.77E-01		
B8-2	7005-72-3	SW8270C	9/2/2009	-14	-15	2.73E-02	U	2.73E-02	3.30E-01	3.00E-02	2.77E-01		
B9 0-1'	7005-72-3	SW8270C	11/11/2009	0	-1	6.00E-03	U	5.98E-03	3.30E-02	3.00E-02	2.77E-01		
B9 14-15'	7005-72-3	SW8270C	11/11/2009	-14	-15	5.80E-03	U	5.81E-03	3.30E-02	3.00E-02	2.77E-01		

4-Chlorophenylphenylether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7005-72-3	SW8270C	8/31/2009	0	-1	5.87E-03	U	5.87E-03	3.33E-02	3.00E-02	2.77E-01		
B10-1	7005-72-3	SW8270C	9/2/2009	-2	-3	7.00E-03	U	7.00E-03	3.33E-02	3.00E-02	2.77E-01		
B10-2	7005-72-3	SW8270C	9/2/2009	-13	-14	5.96E-03	U	5.96E-03	3.33E-02	3.00E-02	2.77E-01		
B2 1-1.5	7005-72-3	SW8270C	9/1/2009	-1	-1.5	5.55E-03	U	5.55E-03	3.33E-02	3.00E-02	2.77E-01		
B2 21-22.5	7005-72-3	SW8270C	9/1/2009	-21	-22.5	6.57E-03	U	6.57E-03	3.33E-02	3.00E-02	2.77E-01		
B3 12-13	7005-72-3	SW8270C	8/31/2009	-12	-13	5.28E-03	U	5.28E-03	3.33E-02	3.00E-02	2.77E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

4-Chlorophenylphenylether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 2-3	7005-72-3	SW8270C	8/31/2009	-2	-3	6.17E-03	U	6.17E-03	3.33E-02	3.00E-02	2.77E-01		
B4 14-14.5	7005-72-3	SW8270C	9/1/2009	-14	-14.5	5.93E-03	U	5.93E-03	3.33E-02	3.00E-02	2.77E-01		
B4 2-2.5	7005-72-3	SW8270C	9/1/2009	-2	-2.5	6.40E-03	U	6.40E-03	3.33E-02	3.00E-02	2.77E-01		
B5-1	7005-72-3	SW8270C	9/2/2009	-1	-1.5	6.30E-03	U	6.30E-03	3.33E-02	3.00E-02	2.77E-01		
B5-2	7005-72-3	SW8270C	9/2/2009	-14.5	-15	6.00E-03	U	6.00E-03	3.33E-02	3.00E-02	2.77E-01		
B6-1	7005-72-3	SW8270C	9/2/2009	-0.5	-1	5.82E-03	U	5.82E-03	3.33E-02	3.00E-02	2.77E-01		
B6-2	7005-72-3	SW8270C	9/2/2009	-14.5	-15	6.00E-03	U	6.00E-03	3.33E-02	3.00E-02	2.77E-01		
B8-1	7005-72-3	SW8270C	9/2/2009	-1	-1.5	5.93E-03	U	5.93E-03	3.33E-02	3.00E-02	2.77E-01		
B8-2	7005-72-3	SW8270C	9/2/2009	-14	-15	5.77E-03	U	5.77E-03	3.33E-02	3.00E-02	2.77E-01		

4-Chlorotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	106-43-4	SW8260B	8/31/2009	0	-1	9.78E-04	U	9.78E-04	5.00E-03	7.30E+01	3.44E+00		
B1 0-1'	106-43-4	SW8260B	11/11/2009	0	-1	1.45E-03	U	1.45E-03	5.00E-03	7.30E+01	3.44E+00		
B1 14-15'	106-43-4	SW8260B	11/11/2009	-14	-15	1.07E-03	U	1.07E-03	5.00E-03	7.30E+01	3.44E+00		
B10-1	106-43-4	SW8260B	9/2/2009	-2	-3	1.17E-03	U	1.17E-03	5.00E-03	7.30E+01	3.44E+00		
B10-2	106-43-4	SW8260B	9/2/2009	-13	-14	9.93E-04	U	9.93E-04	5.00E-03	7.30E+01	3.44E+00		
B2 1-1.5	106-43-4	SW8260B	9/1/2009	-1	-1.5	9.24E-04	U	9.24E-04	5.00E-03	7.30E+01	3.44E+00		
B2 21-22.5	106-43-4	SW8260B	9/1/2009	-21	-22.5	1.09E-03	U	1.09E-03	5.00E-03	7.30E+01	3.44E+00		
B3 12-13	106-43-4	SW8260B	8/31/2009	-12	-13	8.79E-04	U	8.79E-04	5.00E-03	7.30E+01	3.44E+00		
B3 2-3	106-43-4	SW8260B	8/31/2009	-2	-3	1.03E-03	U	1.03E-03	5.00E-03	7.30E+01	3.44E+00		
B4 14.5-15	106-43-4	SW8260B	9/1/2009	-14.5	-15	9.99E-04	U	9.99E-04	5.00E-03	7.30E+01	3.44E+00		
B4 2-2.5	106-43-4	SW8260B	9/1/2009	-2	-2.5	1.07E-03	U	1.07E-03	5.00E-03	7.30E+01	3.44E+00		
B5-1	106-43-4	SW8260B	9/2/2009	-1	-1.5	1.05E-03	U	1.05E-03	5.00E-03	7.30E+01	3.44E+00		
B5-2	106-43-4	SW8260B	9/2/2009	-14.5	-15	9.99E-04	U	9.99E-04	5.00E-03	7.30E+01	3.44E+00		
B6-1	106-43-4	SW8260B	9/2/2009	-0.5	-1	9.69E-04	U	9.69E-04	5.00E-03	7.30E+01	3.44E+00		
B6-2	106-43-4	SW8260B	9/2/2009	-14.5	-15	9.99E-04	U	9.99E-04	5.00E-03	7.30E+01	3.44E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

4-Chlorotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 0-1'	106-43-4	SW8260B	11/11/2009	0	-1	1.15E-03	U	1.15E-03	5.00E-03	7.30E+01	3.44E+00		
B7 14-15'	106-43-4	SW8260B	11/11/2009	-14	-15	1.26E-03	U	1.26E-03	5.00E-03	7.30E+01	3.44E+00		
B8-1	106-43-4	SW8260B	9/2/2009	-1	-1.5	9.88E-04	U	9.88E-04	5.00E-03	7.30E+01	3.44E+00		
B8-2	106-43-4	SW8260B	9/2/2009	-14	-15	9.61E-04	U	9.61E-04	5.00E-03	7.30E+01	3.44E+00		
B8-3	106-43-4	SW8260B	9/2/2009	-8	-8.5	1.04E-03	U	1.04E-03	5.00E-03	7.30E+01	3.44E+00		
B9 0-1'	106-43-4	SW8260B	11/11/2009	0	-1	1.36E-03	U	1.36E-03	5.00E-03	7.30E+01	3.44E+00		
B9 14-15'	106-43-4	SW8260B	11/11/2009	-14	-15	1.24E-03	U	1.24E-03	5.00E-03	7.30E+01	3.44E+00		

4-Isopropyltoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	99-87-6	SW8260B	8/31/2009	0	-1	2.58E-03	U	2.58E-03	5.00E-03	3.65E+02	4.20E+03		
B1 0-1'	99-87-6	SW8260B	11/11/2009	0	-1	3.86E-03	U	3.86E-03	5.00E-03	3.65E+02	4.20E+03		
B1 14-15'	99-87-6	SW8260B	11/11/2009	-14	-15	2.81E-03	U	2.81E-03	5.00E-03	3.65E+02	4.20E+03		
B10-1	99-87-6	SW8260B	9/2/2009	-2	-3	3.08E-03	U	3.08E-03	5.00E-03	3.65E+02	4.20E+03		
B10-2	99-87-6	SW8260B	9/2/2009	-13	-14	2.62E-03	U	2.62E-03	5.00E-03	3.65E+02	4.20E+03		
B2 1-1.5	99-87-6	SW8260B	9/1/2009	-1	-1.5	2.44E-03	U	2.44E-03	5.00E-03	3.65E+02	4.20E+03		
B2 21-22.5	99-87-6	SW8260B	9/1/2009	-21	-22.5	2.89E-03	U	2.89E-03	5.00E-03	3.65E+02	4.20E+03		
B3 12-13	99-87-6	SW8260B	8/31/2009	-12	-13	2.32E-03	U	2.32E-03	5.00E-03	3.65E+02	4.20E+03		
B3 2-3	99-87-6	SW8260B	8/31/2009	-2	-3	2.71E-03	U	2.71E-03	5.00E-03	3.65E+02	4.20E+03		
B4 14.5-15	99-87-6	SW8260B	9/1/2009	-14.5	-15	2.64E-03	U	2.64E-03	5.00E-03	3.65E+02	4.20E+03		
B4 2-2.5	99-87-6	SW8260B	9/1/2009	-2	-2.5	2.81E-03	U	2.81E-03	5.00E-03	3.65E+02	4.20E+03		
B5-1	99-87-6	SW8260B	9/2/2009	-1	-1.5	2.77E-03	U	2.77E-03	5.00E-03	3.65E+02	4.20E+03		
B5-2	99-87-6	SW8260B	9/2/2009	-14.5	-15	2.64E-03	U	2.64E-03	5.00E-03	3.65E+02	4.20E+03		
B6-1	99-87-6	SW8260B	9/2/2009	-0.5	-1	2.56E-03	U	2.56E-03	5.00E-03	3.65E+02	4.20E+03		
B6-2	99-87-6	SW8260B	9/2/2009	-14.5	-15	2.64E-03	U	2.64E-03	5.00E-03	3.65E+02	4.20E+03		
B7 0-1'	99-87-6	SW8260B	11/11/2009	0	-1	3.03E-03	U	3.03E-03	5.00E-03	3.65E+02	4.20E+03		
B7 14-15'	99-87-6	SW8260B	11/11/2009	-14	-15	3.33E-03	U	3.33E-03	5.00E-03	3.65E+02	4.20E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

4-Isopropyltoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-1	99-87-6	SW8260B	9/2/2009	-1	-1.5	2.61E-03	U	2.61E-03	5.00E-03	3.65E+02	4.20E+03		
B8-2	99-87-6	SW8260B	9/2/2009	-14	-15	2.54E-03	U	2.54E-03	5.00E-03	3.65E+02	4.20E+03		
B8-3	99-87-6	SW8260B	9/2/2009	-8	-8.5	2.75E-03	U	2.75E-03	5.00E-03	3.65E+02	4.20E+03		
B9 0-1'	99-87-6	SW8260B	11/11/2009	0	-1	3.58E-03	U	3.58E-03	5.00E-03	3.65E+02	4.20E+03		
B9 14-15'	99-87-6	SW8260B	11/11/2009	-14	-15	3.28E-03	U	3.28E-03	5.00E-03	3.65E+02	4.20E+03		

4-Methyl-2-pentanone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	108-10-1	SW8260B	8/31/2009	0	-1	1.66E-03	U	1.66E-03	1.00E-02	2.92E+02	1.29E+04		
B1 0-1'	108-10-1	SW8260B	11/11/2009	0	-1	2.49E-03	U	2.49E-03	1.00E-02	2.92E+02	1.29E+04		
B1 14-15'	108-10-1	SW8260B	11/11/2009	-14	-15	1.82E-03	U	1.82E-03	1.00E-02	2.92E+02	1.29E+04		
B10-1	108-10-1	SW8260B	9/2/2009	-2	-3	1.98E-03	U	1.98E-03	1.00E-02	2.92E+02	1.29E+04		
B10-2	108-10-1	SW8260B	9/2/2009	-13	-14	1.69E-03	U	1.69E-03	1.00E-02	2.92E+02	1.29E+04		
B2 1-1.5	108-10-1	SW8260B	9/1/2009	-1	-1.5	1.57E-03	U	1.57E-03	1.00E-02	2.92E+02	1.29E+04		
B2 21-22.5	108-10-1	SW8260B	9/1/2009	-21	-22.5	1.86E-03	U	1.86E-03	1.00E-02	2.92E+02	1.29E+04		
B3 12-13	108-10-1	SW8260B	8/31/2009	-12	-13	1.50E-03	U	1.50E-03	1.00E-02	2.92E+02	1.29E+04		
B3 2-3	108-10-1	SW8260B	8/31/2009	-2	-3	1.75E-03	U	1.75E-03	1.00E-02	2.92E+02	1.29E+04		
B4 14.5-15	108-10-1	SW8260B	9/1/2009	-14.5	-15	1.70E-03	U	1.70E-03	1.00E-02	2.92E+02	1.29E+04		
B4 2-2.5	108-10-1	SW8260B	9/1/2009	-2	-2.5	1.81E-03	U	1.81E-03	1.00E-02	2.92E+02	1.29E+04		
B5-1	108-10-1	SW8260B	9/2/2009	-1	-1.5	1.78E-03	U	1.78E-03	1.00E-02	2.92E+02	1.29E+04		
B5-2	108-10-1	SW8260B	9/2/2009	-14.5	-15	1.70E-03	U	1.70E-03	1.00E-02	2.92E+02	1.29E+04		
B6-1	108-10-1	SW8260B	9/2/2009	-0.5	-1	1.65E-03	U	1.65E-03	1.00E-02	2.92E+02	1.29E+04		
B6-2	108-10-1	SW8260B	9/2/2009	-14.5	-15	1.70E-03	U	1.70E-03	1.00E-02	2.92E+02	1.29E+04		
B7 0-1'	108-10-1	SW8260B	11/11/2009	0	-1	1.96E-03	U	1.96E-03	1.00E-02	2.92E+02	1.29E+04		
B7 14-15'	108-10-1	SW8260B	11/11/2009	-14	-15	2.15E-03	U	2.15E-03	1.00E-02	2.92E+02	1.29E+04		
B8-1	108-10-1	SW8260B	9/2/2009	-1	-1.5	1.68E-03	U	1.68E-03	1.00E-02	2.92E+02	1.29E+04		
B8-2	108-10-1	SW8260B	9/2/2009	-14	-15	1.63E-03	U	1.63E-03	1.00E-02	2.92E+02	1.29E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

4-Methyl-2-pentanone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-3	108-10-1	SW8260B	9/2/2009	-8	-8.5	1.77E-03	U	1.77E-03	1.00E-02	2.92E+02	1.29E+04		
B9 0-1'	108-10-1	SW8260B	11/11/2009	0	-1	2.31E-03	U	2.31E-03	1.00E-02	2.92E+02	1.29E+04		
B9 14-15'	108-10-1	SW8260B	11/11/2009	-14	-15	2.12E-03	U	2.12E-03	1.00E-02	2.92E+02	1.29E+04		

4-Methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	106-44-5	SW8270C	8/31/2009	0	-1	6.09E-02	U	6.09E-02	3.30E-01	1.83E+01	7.74E+02		
B1 0-1'	106-44-5	SW8270C	11/11/2009	0	-1	6.30E-02	U	6.30E-02	3.30E-01	1.83E+01	7.74E+02		
B1 14-15'	106-44-5	SW8270C	11/11/2009	-14	-15	5.67E-02	U	5.67E-02	3.30E-01	1.83E+01	7.74E+02		
B10-1	106-44-5	SW8270C	9/2/2009	-2	-3	7.27E-02	U	7.27E-02	3.30E-01	1.83E+01	7.74E+02		
B10-2	106-44-5	SW8270C	9/2/2009	-13	-14	6.19E-02	U	6.19E-02	3.30E-01	1.83E+01	7.74E+02		
B2 1-1.5	106-44-5	SW8270C	9/1/2009	-1	-1.5	5.76E-02	U	5.76E-02	3.30E-01	1.83E+01	7.74E+02		
B2 21-22.5	106-44-5	SW8270C	9/1/2009	-21	-22.5	6.81E-02	U	6.81E-02	3.30E-01	1.83E+01	7.74E+02		
B3 12-13	106-44-5	SW8270C	8/31/2009	-12	-13	5.48E-02	U	5.48E-02	3.30E-01	1.83E+01	7.74E+02		
B3 2-3	106-44-5	SW8270C	8/31/2009	-2	-3	6.41E-02	U	6.41E-02	3.30E-01	1.83E+01	7.74E+02		
B4 14-14.5	106-44-5	SW8270C	9/1/2009	-14	-14.5	6.15E-02	U	6.15E-02	3.30E-01	1.83E+01	7.74E+02		
B4 2-2.5	106-44-5	SW8270C	9/1/2009	-2	-2.5	6.64E-02	U	6.64E-02	3.30E-01	1.83E+01	7.74E+02		
B5-1	106-44-5	SW8270C	9/2/2009	-1	-1.5	6.53E-02	U	6.53E-02	3.30E-01	1.83E+01	7.74E+02		
B5-2	106-44-5	SW8270C	9/2/2009	-14.5	-15	6.22E-02	U	6.22E-02	3.30E-01	1.83E+01	7.74E+02		
B6-1	106-44-5	SW8270C	9/2/2009	-0.5	-1	6.04E-02	U	6.04E-02	3.30E-01	1.83E+01	7.74E+02		
B6-2	106-44-5	SW8270C	9/2/2009	-14.5	-15	6.22E-02	U	6.22E-02	3.30E-01	1.83E+01	7.74E+02		
B7 0-1'	106-44-5	SW8270C	11/11/2009	0	-1	5.82E-02	U	5.82E-02	3.30E-01	1.83E+01	7.74E+02		
B7 14-15'	106-44-5	SW8270C	11/11/2009	-14	-15	6.00E-02	U	6.00E-02	3.30E-01	1.83E+01	7.74E+02		
B8-1	106-44-5	SW8270C	9/2/2009	-1	-1.5	6.16E-02	U	6.16E-02	3.30E-01	1.83E+01	7.74E+02		
B8-2	106-44-5	SW8270C	9/2/2009	-14	-15	5.99E-02	U	5.99E-02	3.30E-01	1.83E+01	7.74E+02		
B9 0-1'	106-44-5	SW8270C	11/11/2009	0	-1	6.14E-02	U	6.14E-02	3.30E-01	1.83E+01	7.74E+02		
B9 14-15'	106-44-5	SW8270C	11/11/2009	-14	-15	5.97E-02	U	5.97E-02	3.30E-01	1.83E+01	7.74E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

4-Nitroaniline

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	100-01-6	SW8270C	8/31/2009	0	-1	1.35E-01	U	1.35E-01	3.30E-01	2.24E+00	1.29E+02		
B1 0-1'	100-01-6	SW8270C	11/11/2009	0	-1	1.39E-01	U	1.39E-01	3.30E-01	2.24E+00	1.29E+02		
B1 14-15'	100-01-6	SW8270C	11/11/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	2.24E+00	1.29E+02		
B10-1	100-01-6	SW8270C	9/2/2009	-2	-3	1.61E-01	U	1.61E-01	3.30E-01	2.24E+00	1.29E+02		
B10-2	100-01-6	SW8270C	9/2/2009	-13	-14	1.37E-01	U	1.37E-01	3.30E-01	2.24E+00	1.29E+02		
B2 1-1.5	100-01-6	SW8270C	9/1/2009	-1	-1.5	1.28E-01	U	1.27E-01	3.30E-01	2.24E+00	1.29E+02		
B2 21-22.5	100-01-6	SW8270C	9/1/2009	-21	-22.5	1.51E-01	U	1.51E-01	3.30E-01	2.24E+00	1.29E+02		
B3 12-13	100-01-6	SW8270C	8/31/2009	-12	-13	1.21E-01	U	1.21E-01	3.30E-01	2.24E+00	1.29E+02		
B3 2-3	100-01-6	SW8270C	8/31/2009	-2	-3	1.42E-01	U	1.42E-01	3.30E-01	2.24E+00	1.29E+02		
B4 14-14.5	100-01-6	SW8270C	9/1/2009	-14	-14.5	1.36E-01	U	1.36E-01	3.30E-01	2.24E+00	1.29E+02		
B4 2-2.5	100-01-6	SW8270C	9/1/2009	-2	-2.5	1.47E-01	U	1.47E-01	3.30E-01	2.24E+00	1.29E+02		
B5-1	100-01-6	SW8270C	9/2/2009	-1	-1.5	1.45E-01	U	1.45E-01	3.30E-01	2.24E+00	1.29E+02		
B5-2	100-01-6	SW8270C	9/2/2009	-14.5	-15	1.38E-01	U	1.38E-01	3.30E-01	2.24E+00	1.29E+02		
B6-1	100-01-6	SW8270C	9/2/2009	-0.5	-1	1.34E-01	U	1.34E-01	3.30E-01	2.24E+00	1.29E+02		
B6-2	100-01-6	SW8270C	9/2/2009	-14.5	-15	1.38E-01	U	1.38E-01	3.30E-01	2.24E+00	1.29E+02		
B7 0-1'	100-01-6	SW8270C	11/11/2009	0	-1	1.29E-01	U	1.29E-01	3.30E-01	2.24E+00	1.29E+02		
B7 14-15'	100-01-6	SW8270C	11/11/2009	-14	-15	1.33E-01	U	1.33E-01	3.30E-01	2.24E+00	1.29E+02		
B8-1	100-01-6	SW8270C	9/2/2009	-1	-1.5	1.36E-01	U	1.36E-01	3.30E-01	2.24E+00	1.29E+02		
B8-2	100-01-6	SW8270C	9/2/2009	-14	-15	1.33E-01	U	1.33E-01	3.30E-01	2.24E+00	1.29E+02		
B9 0-1'	100-01-6	SW8270C	11/11/2009	0	-1	1.36E-01	U	1.36E-01	3.30E-01	2.24E+00	1.29E+02		
B9 14-15'	100-01-6	SW8270C	11/11/2009	-14	-15	1.32E-01	U	1.32E-01	3.30E-01	2.24E+00	1.29E+02		

4-Nitrophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	100-02-7	SW8270C	8/31/2009	0	-1	6.85E-02	U	6.85E-02	3.30E-01	7.30E+00	3.10E+02		
B1 0-1'	100-02-7	SW8270C	11/11/2009	0	-1	7.08E-02	U	7.08E-02	3.30E-01	7.30E+00	3.10E+02		
B1 14-15'	100-02-7	SW8270C	11/11/2009	-14	-15	6.37E-02	U	6.37E-02	3.30E-01	7.30E+00	3.10E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

4-Nitrophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-1	100-02-7	SW8270C	9/2/2009	-2	-3	8.17E-02	U	8.17E-02	3.30E-01	7.30E+00	3.10E+02		
B10-2	100-02-7	SW8270C	9/2/2009	-13	-14	6.95E-02	U	6.95E-02	3.30E-01	7.30E+00	3.10E+02		
B2 1-1.5	100-02-7	SW8270C	9/1/2009	-1	-1.5	6.47E-02	U	6.47E-02	3.30E-01	7.30E+00	3.10E+02		
B2 21-22.5	100-02-7	SW8270C	9/1/2009	-21	-22.5	7.66E-02	U	7.66E-02	3.30E-01	7.30E+00	3.10E+02		
B3 12-13	100-02-7	SW8270C	8/31/2009	-12	-13	6.16E-02	U	6.16E-02	3.30E-01	7.30E+00	3.10E+02		
B3 2-3	100-02-7	SW8270C	8/31/2009	-2	-3	7.20E-02	U	7.20E-02	3.30E-01	7.30E+00	3.10E+02		
B4 14-14.5	100-02-7	SW8270C	9/1/2009	-14	-14.5	6.91E-02	U	6.91E-02	3.30E-01	7.30E+00	3.10E+02		
B4 2-2.5	100-02-7	SW8270C	9/1/2009	-2	-2.5	7.47E-02	U	7.47E-02	3.30E-01	7.30E+00	3.10E+02		
B5-1	100-02-7	SW8270C	9/2/2009	-1	-1.5	7.34E-02	U	7.34E-02	3.30E-01	7.30E+00	3.10E+02		
B5-2	100-02-7	SW8270C	9/2/2009	-14.5	-15	7.00E-02	U	7.00E-02	3.30E-01	7.30E+00	3.10E+02		
B6-1	100-02-7	SW8270C	9/2/2009	-0.5	-1	6.79E-02	U	6.79E-02	3.30E-01	7.30E+00	3.10E+02		
B6-2	100-02-7	SW8270C	9/2/2009	-14.5	-15	7.00E-02	U	7.00E-02	3.30E-01	7.30E+00	3.10E+02		
B7 0-1'	100-02-7	SW8270C	11/11/2009	0	-1	6.54E-02	U	6.54E-02	3.30E-01	7.30E+00	3.10E+02		
B7 14-15'	100-02-7	SW8270C	11/11/2009	-14	-15	6.74E-02	U	6.74E-02	3.30E-01	7.30E+00	3.10E+02		
B8-1	100-02-7	SW8270C	9/2/2009	-1	-1.5	6.92E-02	U	6.92E-02	3.30E-01	7.30E+00	3.10E+02		
B8-2	100-02-7	SW8270C	9/2/2009	-14	-15	6.73E-02	U	6.73E-02	3.30E-01	7.30E+00	3.10E+02		
B9 0-1'	100-02-7	SW8270C	11/11/2009	0	-1	6.91E-02	U	6.91E-02	3.30E-01	7.30E+00	3.10E+02		
B9 14-15'	100-02-7	SW8270C	11/11/2009	-14	-15	6.71E-02	U	6.71E-02	3.30E-01	7.30E+00	3.10E+02		

4-Nitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 1-2 FT	99-99-0	SW-846 83	8/31/2009	-1	-2	7.02E-01	U	7.02E-01	1.00E-01	3.65E+01	4.37E+02		
B1 13-14	99-99-0	SW-846 83	8/31/2009	-13	-14	7.02E-01	U	7.02E-01	1.00E-01	3.65E+01	4.37E+02		
B10 1 - 2	99-99-0	SW-846 83	9/2/2009	-1	-2	8.34E-01	U	8.34E-01	1.00E-01	3.65E+01	4.37E+02		
B10 11.5 - 1	99-99-0	SW-846 83	9/2/2009	-11.5	-12	8.62E-01	U	8.62E-01	1.00E-01	3.65E+01	4.37E+02		
B2 0.5-1.0	99-99-0	SW-846 83	9/1/2009	-0.5	-1	7.02E-01	U	7.02E-01	1.00E-01	3.65E+01	4.37E+02		
B2 21-21.5	99-99-0	SW-846 83	9/1/2009	-21	-21.5	7.02E-01	U	7.02E-01	1.00E-01	3.65E+01	4.37E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

4-Nitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 0-1	99-99-0	SW-846 83	8/31/2009	0	-1	7.02E-01	U	7.02E-01	1.00E-01	3.65E+01	4.37E+02		
B3 14-15	99-99-0	SW-846 83	8/31/2009	-14	-15	7.02E-01	U	7.02E-01	1.00E-01	3.65E+01	4.37E+02		
B4 13-14	99-99-0	SW-846 83	9/1/2009	-13	-14	7.02E-01	U	7.02E-01	1.00E-01	3.65E+01	4.37E+02		
B4 3-3.5	99-99-0	SW-846 83	9/1/2009	-3	-3.5	7.02E-01	U	7.02E-01	1.00E-01	3.65E+01	4.37E+02		
B5 14 - 14.	99-99-0	SW-846 83	9/2/2009	-14	-14.5	8.23E-01	U	8.23E-01	1.00E-01	3.65E+01	4.37E+02		
B5 0.5 - 1 M	99-99-0	SW-846 83	9/2/2009	-0.5	-1	8.57E-01	U	8.57E-01	1.00E-01	3.65E+01	4.37E+02		
B6 1 - 1.5	99-99-0	SW-846 83	9/2/2009	-1	-1.5	8.26E-01	U	8.26E-01	1.00E-01	3.65E+01	4.37E+02		
B6 14 - 14.5	99-99-0	SW-846 83	9/2/2009	-14	-14.5	8.08E-01	U	8.08E-01	1.00E-01	3.65E+01	4.37E+02		
B7 0-1 FT	99-99-0	SW-846 83	8/31/2009	0	-1	7.02E-01	U	7.02E-01	1.00E-01	3.65E+01	4.37E+02		
B7 14-15	99-99-0	SW-846 83	8/31/2009	-14	-15	7.02E-01	U	7.02E-01	1.00E-01	3.65E+01	4.37E+02		
B8 13 - 14	99-99-0	SW-846 83	9/2/2009	-13	-14	7.97E-01	U	7.97E-01	1.00E-01	3.65E+01	4.37E+02		
B8 2.75 - 3	99-99-0	SW-846 83	9/2/2009	-2.75	-3	8.81E-01	U	8.81E-01	1.00E-01	3.65E+01	4.37E+02		
B9 14-15	99-99-0	SW-846 83	8/31/2009	-14	-15	7.02E-01	U	7.02E-01	1.00E-01	3.65E+01	4.37E+02		
B9-0-2 FT	99-99-0	SW-846 83	8/31/2009	0	-2	7.02E-01	U	7.02E-01	1.00E-01	3.65E+01	4.37E+02		

Acenaphthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	83-32-9	SW8270C	8/31/2009	0	-1	1.62E-01	U	1.62E-01	3.30E-01	2.19E+02	1.34E+04		
B1 0-1'	83-32-9	SW8270C	11/11/2009	0	-1	1.67E-01	U	1.67E-01	3.30E-01	2.19E+02	1.34E+04		
B1 14-15'	83-32-9	SW8270C	11/11/2009	-14	-15	1.50E-01	U	1.50E-01	3.30E-01	2.19E+02	1.34E+04		
B10-1	83-32-9	SW8270C	9/2/2009	-2	-3	1.93E-01	U	1.93E-01	3.30E-01	2.19E+02	1.34E+04		
B10-2	83-32-9	SW8270C	9/2/2009	-13	-14	1.64E-01	U	1.64E-01	3.30E-01	2.19E+02	1.34E+04		
B2 1-1.5	83-32-9	SW8270C	9/1/2009	-1	-1.5	1.53E-01	U	1.53E-01	3.30E-01	2.19E+02	1.34E+04		
B2 21-22.5	83-32-9	SW8270C	9/1/2009	-21	-22.5	1.81E-01	U	1.81E-01	3.30E-01	2.19E+02	1.34E+04		
B3 12-13	83-32-9	SW8270C	8/31/2009	-12	-13	1.45E-01	U	1.45E-01	3.30E-01	2.19E+02	1.34E+04		
B3 2-3	83-32-9	SW8270C	8/31/2009	-2	-3	1.70E-01	U	1.70E-01	3.30E-01	2.19E+02	1.34E+04		
B4 14-14.5	83-32-9	SW8270C	9/1/2009	-14	-14.5	1.63E-01	U	1.63E-01	3.30E-01	2.19E+02	1.34E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Acenaphthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 2-2.5	83-32-9	SW8270C	9/1/2009	-2	-2.5	1.76E-01	U	1.76E-01	3.30E-01	2.19E+02	1.34E+04		
B5-1	83-32-9	SW8270C	9/2/2009	-1	-1.5	1.73E-01	U	1.73E-01	3.30E-01	2.19E+02	1.34E+04		
B5-2	83-32-9	SW8270C	9/2/2009	-14.5	-15	1.65E-01	U	1.65E-01	3.30E-01	2.19E+02	1.34E+04		
B6-1	83-32-9	SW8270C	9/2/2009	-0.5	-1	1.60E-01	U	1.60E-01	3.30E-01	2.19E+02	1.34E+04		
B6-2	83-32-9	SW8270C	9/2/2009	-14.5	-15	1.65E-01	U	1.65E-01	3.30E-01	2.19E+02	1.34E+04		
B7 0-1'	83-32-9	SW8270C	11/11/2009	0	-1	1.54E-01	U	1.54E-01	3.30E-01	2.19E+02	1.34E+04		
B7 14-15'	83-32-9	SW8270C	11/11/2009	-14	-15	1.59E-01	U	1.59E-01	3.30E-01	2.19E+02	1.34E+04		
B8-1	83-32-9	SW8270C	9/2/2009	-1	-1.5	1.63E-01	U	1.63E-01	3.30E-01	2.19E+02	1.34E+04		
B8-2	83-32-9	SW8270C	9/2/2009	-14	-15	1.59E-01	U	1.59E-01	3.30E-01	2.19E+02	1.34E+04		
B9 0-1'	83-32-9	SW8270C	11/11/2009	0	-1	1.63E-01	U	1.63E-01	3.30E-01	2.19E+02	1.34E+04		
B9 14-15'	83-32-9	SW8270C	11/11/2009	-14	-15	1.58E-01	U	1.58E-01	3.30E-01	2.19E+02	1.34E+04		

Acenaphthylene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	208-96-8	SW8270C	8/31/2009	0	-1	1.41E-01	U	1.41E-01	3.30E-01	2.19E+02	8.22E+03		
B1 0-1'	208-96-8	SW8270C	11/11/2009	0	-1	1.45E-01	U	1.45E-01	3.30E-01	2.19E+02	8.22E+03		
B1 14-15'	208-96-8	SW8270C	11/11/2009	-14	-15	1.31E-01	U	1.31E-01	3.30E-01	2.19E+02	8.22E+03		
B10-1	208-96-8	SW8270C	9/2/2009	-2	-3	1.68E-01	U	1.68E-01	3.30E-01	2.19E+02	8.22E+03		
B10-2	208-96-8	SW8270C	9/2/2009	-13	-14	1.43E-01	U	1.43E-01	3.30E-01	2.19E+02	8.22E+03		
B2 1-1.5	208-96-8	SW8270C	9/1/2009	-1	-1.5	1.33E-01	U	1.33E-01	3.30E-01	2.19E+02	8.22E+03		
B2 21-22.5	208-96-8	SW8270C	9/1/2009	-21	-22.5	1.57E-01	U	1.57E-01	3.30E-01	2.19E+02	8.22E+03		
B3 12-13	208-96-8	SW8270C	8/31/2009	-12	-13	1.27E-01	U	1.27E-01	3.30E-01	2.19E+02	8.22E+03		
B3 2-3	208-96-8	SW8270C	8/31/2009	-2	-3	1.48E-01	U	1.48E-01	3.30E-01	2.19E+02	8.22E+03		
B4 14-14.5	208-96-8	SW8270C	9/1/2009	-14	-14.5	1.42E-01	U	1.42E-01	3.30E-01	2.19E+02	8.22E+03		
B4 2-2.5	208-96-8	SW8270C	9/1/2009	-2	-2.5	1.53E-01	U	1.53E-01	3.30E-01	2.19E+02	8.22E+03		
B5-1	208-96-8	SW8270C	9/2/2009	-1	-1.5	1.51E-01	U	1.51E-01	3.30E-01	2.19E+02	8.22E+03		
B5-2	208-96-8	SW8270C	9/2/2009	-14.5	-15	1.44E-01	U	1.44E-01	3.30E-01	2.19E+02	8.22E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Acenaphthylene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B6-1	208-96-8	SW8270C	9/2/2009	-0.5	-1	1.39E-01	U	1.39E-01	3.30E-01	2.19E+02	8.22E+03		
B6-2	208-96-8	SW8270C	9/2/2009	-14.5	-15	1.44E-01	U	1.44E-01	3.30E-01	2.19E+02	8.22E+03		
B7 0-1'	208-96-8	SW8270C	11/11/2009	0	-1	1.34E-01	U	1.34E-01	3.30E-01	2.19E+02	8.22E+03		
B7 14-15'	208-96-8	SW8270C	11/11/2009	-14	-15	1.38E-01	U	1.38E-01	3.30E-01	2.19E+02	8.22E+03		
B8-1	208-96-8	SW8270C	9/2/2009	-1	-1.5	1.42E-01	U	1.42E-01	3.30E-01	2.19E+02	8.22E+03		
B8-2	208-96-8	SW8270C	9/2/2009	-14	-15	1.38E-01	U	1.38E-01	3.30E-01	2.19E+02	8.22E+03		
B9 0-1'	208-96-8	SW8270C	11/11/2009	0	-1	1.42E-01	U	1.42E-01	3.30E-01	2.19E+02	8.22E+03		
B9 14-15'	208-96-8	SW8270C	11/11/2009	-14	-15	1.38E-01	U	1.38E-01	3.30E-01	2.19E+02	8.22E+03		

Acetone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	67-64-1	SW8260B	8/31/2009	0	-1	1.33E-03	U	1.33E-03	1.00E-02	3.29E+03	1.74E+03		
B1 0-1'	67-64-1	SW8260B	11/11/2009	0	-1	1.98E-03	U	1.98E-03	1.00E-02	3.29E+03	1.74E+03		
B1 14-15'	67-64-1	SW8260B	11/11/2009	-14	-15	1.44E-03	U	1.44E-03	1.00E-02	3.29E+03	1.74E+03		
B10-1	67-64-1	SW8260B	9/2/2009	-2	-3	1.58E-03	U	1.58E-03	1.00E-02	3.29E+03	1.74E+03		
B10-2	67-64-1	SW8260B	9/2/2009	-13	-14	1.35E-03	U	1.35E-03	1.00E-02	3.29E+03	1.74E+03		
B2 1-1.5	67-64-1	SW8260B	9/1/2009	-1	-1.5	1.25E-03	U	1.25E-03	1.00E-02	3.29E+03	1.74E+03		
B2 21-22.5	67-64-1	SW8260B	9/1/2009	-21	-22.5	1.48E-03	U	1.48E-03	1.00E-02	3.29E+03	1.74E+03		
B3 12-13	67-64-1	SW8260B	8/31/2009	-12	-13	1.19E-03	U	1.19E-03	1.00E-02	3.29E+03	1.74E+03		
B3 2-3	67-64-1	SW8260B	8/31/2009	-2	-3	1.39E-03	U	1.39E-03	1.00E-02	3.29E+03	1.74E+03		
B4 14.5-15	67-64-1	SW8260B	9/1/2009	-14.5	-15	1.35E-03	U	1.35E-03	1.00E-02	3.29E+03	1.74E+03		
B4 2-2.5	67-64-1	SW8260B	9/1/2009	-2	-2.5	1.44E-03	U	1.44E-03	1.00E-02	3.29E+03	1.74E+03		
B5-1	67-64-1	SW8260B	9/2/2009	-1	-1.5	1.42E-03	U	1.42E-03	1.00E-02	3.29E+03	1.74E+03		
B5-2	67-64-1	SW8260B	9/2/2009	-14.5	-15	1.35E-03	U	1.35E-03	1.00E-02	3.29E+03	1.74E+03		
B6-1	67-64-1	SW8260B	9/2/2009	-0.5	-1	1.31E-03	U	1.31E-03	1.00E-02	3.29E+03	1.74E+03		
B6-2	67-64-1	SW8260B	9/2/2009	-14.5	-15	1.35E-03	U	1.35E-03	1.00E-02	3.29E+03	1.74E+03		
B7 0-1'	67-64-1	SW8260B	11/11/2009	0	-1	1.57E-03	U	1.57E-03	1.00E-02	3.29E+03	1.74E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Acetone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 14-15'	67-64-1	SW8260B	11/11/2009	-14	-15	1.70E-03	U	1.70E-03	1.00E-02	3.29E+03	1.74E+03		
B8-1	67-64-1	SW8260B	9/2/2009	-1	-1.5	1.34E-03	U	1.34E-03	1.00E-02	3.29E+03	1.74E+03		
B8-2	67-64-1	SW8260B	9/2/2009	-14	-15	1.30E-03	U	1.30E-03	1.00E-02	3.29E+03	1.74E+03		
B8-3	67-64-1	SW8260B	9/2/2009	-8	-8.5	1.41E-03	U	1.41E-03	1.00E-02	3.29E+03	1.74E+03		
B9 0-1'	67-64-1	SW8260B	11/11/2009	0	-1	1.84E-03	U	1.84E-03	1.00E-02	3.29E+03	1.74E+03		
B9 14-15'	67-64-1	SW8260B	11/11/2009	-14	-15	1.69E-03	U	1.69E-03	1.00E-02	3.29E+03	1.74E+03		

Acetophenone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	98-86-2	SW8270C	8/31/2009	0	-1	1.69E-01	U	1.69E-01	3.30E-01	3.65E+02	2.67E+03		
B1 0-1'	98-86-2	SW8270C	11/11/2009	0	-1	1.74E-01	U	1.74E-01	3.30E-01	3.65E+02	2.67E+03		
B1 14-15'	98-86-2	SW8270C	11/11/2009	-14	-15	1.57E-01	U	1.57E-01	3.30E-01	3.65E+02	2.67E+03		
B10-1	98-86-2	SW8270C	9/2/2009	-2	-3	2.01E-01	U	2.01E-01	3.30E-01	3.65E+02	2.67E+03		
B10-2	98-86-2	SW8270C	9/2/2009	-13	-14	1.71E-01	U	1.71E-01	3.30E-01	3.65E+02	2.67E+03		
B2 1-1.5	98-86-2	SW8270C	9/1/2009	-1	-1.5	1.59E-01	U	1.59E-01	3.30E-01	3.65E+02	2.67E+03		
B2 21-22.5	98-86-2	SW8270C	9/1/2009	-21	-22.5	1.89E-01	U	1.89E-01	3.30E-01	3.65E+02	2.67E+03		
B3 12-13	98-86-2	SW8270C	8/31/2009	-12	-13	1.52E-01	U	1.52E-01	3.30E-01	3.65E+02	2.67E+03		
B3 2-3	98-86-2	SW8270C	8/31/2009	-2	-3	1.77E-01	U	1.77E-01	3.30E-01	3.65E+02	2.67E+03		
B4 14-14.5	98-86-2	SW8270C	9/1/2009	-14	-14.5	1.70E-01	U	1.70E-01	3.30E-01	3.65E+02	2.67E+03		
B4 2-2.5	98-86-2	SW8270C	9/1/2009	-2	-2.5	1.84E-01	U	1.84E-01	3.30E-01	3.65E+02	2.67E+03		
B5-1	98-86-2	SW8270C	9/2/2009	-1	-1.5	1.81E-01	U	1.81E-01	3.30E-01	3.65E+02	2.67E+03		
B5-2	98-86-2	SW8270C	9/2/2009	-14.5	-15	1.72E-01	U	1.72E-01	3.30E-01	3.65E+02	2.67E+03		
B6-1	98-86-2	SW8270C	9/2/2009	-0.5	-1	1.67E-01	U	1.67E-01	3.30E-01	3.65E+02	2.67E+03		
B6-2	98-86-2	SW8270C	9/2/2009	-14.5	-15	1.72E-01	U	1.72E-01	3.30E-01	3.65E+02	2.67E+03		
B7 0-1'	98-86-2	SW8270C	11/11/2009	0	-1	1.61E-01	U	1.61E-01	3.30E-01	3.65E+02	2.67E+03		
B7 14-15'	98-86-2	SW8270C	11/11/2009	-14	-15	1.66E-01	U	1.66E-01	3.30E-01	3.65E+02	2.67E+03		
B8-1	98-86-2	SW8270C	9/2/2009	-1	-1.5	1.70E-01	U	1.70E-01	3.30E-01	3.65E+02	2.67E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Acetophenone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-2	98-86-2	SW8270C	9/2/2009	-14	-15	1.66E-01	U	1.66E-01	3.30E-01	3.65E+02	2.67E+03		
B9 0-1'	98-86-2	SW8270C	11/11/2009	0	-1	1.70E-01	U	1.70E-01	3.30E-01	3.65E+02	2.67E+03		
B9 14-15'	98-86-2	SW8270C	11/11/2009	-14	-15	1.65E-01	U	1.65E-01	3.30E-01	3.65E+02	2.67E+03		

Allyl chloride

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	107-05-1	SW8260B	8/31/2009	0	-1	2.80E-03	U	2.80E-03	5.00E-03	3.65E+01	1.28E+00		
B1 0-1'	107-05-1	SW8260B	11/11/2009	0	-1	4.19E-03	U	4.19E-03	5.00E-03	3.65E+01	1.28E+00		
B1 14-15'	107-05-1	SW8260B	11/11/2009	-14	-15	3.05E-03	U	3.05E-03	5.00E-03	3.65E+01	1.28E+00		
B10-1	107-05-1	SW8260B	9/2/2009	-2	-3	3.34E-03	U	3.34E-03	5.00E-03	3.65E+01	1.28E+00		
B10-2	107-05-1	SW8260B	9/2/2009	-13	-14	2.85E-03	U	2.85E-03	5.00E-03	3.65E+01	1.28E+00		
B2 1-1.5	107-05-1	SW8260B	9/1/2009	-1	-1.5	2.65E-03	U	2.65E-03	5.00E-03	3.65E+01	1.28E+00		
B2 21-22.5	107-05-1	SW8260B	9/1/2009	-21	-22.5	3.13E-03	U	3.13E-03	5.00E-03	3.65E+01	1.28E+00		
B3 12-13	107-05-1	SW8260B	8/31/2009	-12	-13	2.52E-03	U	2.52E-03	5.00E-03	3.65E+01	1.28E+00		
B3 2-3	107-05-1	SW8260B	8/31/2009	-2	-3	2.95E-03	U	2.95E-03	5.00E-03	3.65E+01	1.28E+00		
B4 14.5-15	107-05-1	SW8260B	9/1/2009	-14.5	-15	2.86E-03	U	2.86E-03	5.00E-03	3.65E+01	1.28E+00		
B4 2-2.5	107-05-1	SW8260B	9/1/2009	-2	-2.5	3.05E-03	U	3.05E-03	5.00E-03	3.65E+01	1.28E+00		
B5-1	107-05-1	SW8260B	9/2/2009	-1	-1.5	3.00E-03	U	3.00E-03	5.00E-03	3.65E+01	1.28E+00		
B5-2	107-05-1	SW8260B	9/2/2009	-14.5	-15	2.86E-03	U	2.86E-03	5.00E-03	3.65E+01	1.28E+00		
B6-1	107-05-1	SW8260B	9/2/2009	-0.5	-1	2.78E-03	U	2.78E-03	5.00E-03	3.65E+01	1.28E+00		
B6-2	107-05-1	SW8260B	9/2/2009	-14.5	-15	2.86E-03	U	2.86E-03	5.00E-03	3.65E+01	1.28E+00		
B7 0-1'	107-05-1	SW8260B	11/11/2009	0	-1	3.31E-03	U	3.31E-03	5.00E-03	3.65E+01	1.28E+00		
B7 14-15'	107-05-1	SW8260B	11/11/2009	-14	-15	3.62E-03	U	3.62E-03	5.00E-03	3.65E+01	1.28E+00		
B8-1	107-05-1	SW8260B	9/2/2009	-1	-1.5	2.83E-03	U	2.83E-03	5.00E-03	3.65E+01	1.28E+00		
B8-2	107-05-1	SW8260B	9/2/2009	-14	-15	2.75E-03	U	2.75E-03	5.00E-03	3.65E+01	1.28E+00		
B8-3	107-05-1	SW8260B	9/2/2009	-8	-8.5	2.99E-03	U	2.99E-03	5.00E-03	3.65E+01	1.28E+00		
B9 0-1'	107-05-1	SW8260B	11/11/2009	0	-1	3.89E-03	U	3.89E-03	5.00E-03	3.65E+01	1.28E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Allyl chloride

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B9 14-15'	107-05-1	SW8260B	11/11/2009	-14	-15	3.55E-03	U	3.55E-03	5.00E-03	3.65E+01	1.28E+00		

Aluminum

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7429-90-5	SW6010B	8/31/2009	0	-1	1.49E+04		5.38E-01	2.50E+00	2.60E+07	1.55E+05	4.53E+03	1.63E+04
B1 0-1'	7429-90-5	SW6010B	11/11/2009	0	-1	2.61E+04		6.68E-01	2.50E+00	2.60E+07	1.55E+05	4.53E+03	1.63E+04
B1 14-15'	7429-90-5	SW6010B	11/11/2009	-14	-15	5.99E+03		6.02E-01	2.50E+00	2.60E+07	1.55E+05		
B10-1	7429-90-5	SW6010B	9/2/2009	-2	-3	2.04E+04		6.42E-01	2.50E+00	2.60E+07	1.55E+05	1.20E+04	2.58E+04
B10-2	7429-90-5	SW6010B	9/2/2009	-13	-14	1.30E+04		5.47E-01	2.50E+00	2.60E+07	1.55E+05		
B2 1-1.5	7429-90-5	SW6010B	9/1/2009	-1	-1.5	3.33E+04		5.09E-01	2.50E+00	2.60E+07	1.55E+05	1.20E+04	2.58E+04
B2 21-22.5	7429-90-5	SW6010B	9/1/2009	-21	-22.5	1.66E+04		6.02E-01	2.50E+00	2.60E+07	1.55E+05		
B3 12-13	7429-90-5	SW6010B	8/31/2009	-12	-13	5.88E+03		4.84E-01	2.50E+00	2.60E+07	1.55E+05		
B3 2-3	7429-90-5	SW6010B	8/31/2009	-2	-3	4.15E+04		5.66E-01	2.50E+00	2.60E+07	1.55E+05	1.20E+04	2.58E+04
B4 14-14.5	7429-90-5	SW6010B	9/1/2009	-14	-14.5	1.90E+04		5.43E-01	2.50E+00	2.60E+07	1.55E+05		
B4 2-2.5	7429-90-5	SW6010B	9/1/2009	-2	-2.5	2.06E+04		5.87E-01	2.50E+00	2.60E+07	1.55E+05	1.20E+04	2.58E+04
B5-1	7429-90-5	SW6010B	9/2/2009	-1	-1.5	3.81E+04		5.77E-01	2.50E+00	2.60E+07	1.55E+05	1.20E+04	2.58E+04
B5-2	7429-90-5	SW6010B	9/2/2009	-14.5	-15	2.05E+04		5.50E-01	2.50E+00	2.60E+07	1.55E+05		
B6-1	7429-90-5	SW6010B	9/2/2009	-0.5	-1	1.90E+04		5.33E-01	2.50E+00	2.60E+07	1.55E+05	4.53E+03	1.63E+04
B6-2	7429-90-5	SW6010B	9/2/2009	-14.5	-15	1.93E+04		5.50E-01	2.50E+00	2.60E+07	1.55E+05		
B7 0-1'	7429-90-5	SW6010B	11/11/2009	0	-1	7.68E+03		6.17E-01	2.50E+00	2.60E+07	1.55E+05	4.53E+03	1.63E+04
B7 14-15'	7429-90-5	SW6010B	11/11/2009	-14	-15	7.27E+03		6.36E-01	2.50E+00	2.60E+07	1.55E+05		
B8-1	7429-90-5	SW6010B	9/2/2009	-1	-1.5	2.20E+04		5.44E-01	2.50E+00	2.60E+07	1.55E+05	1.20E+04	2.58E+04
B8-2	7429-90-5	SW6010B	9/2/2009	-14	-15	1.63E+04		5.29E-01	2.50E+00	2.60E+07	1.55E+05		
B9 0-1'	7429-90-5	SW6010B	11/11/2009	0	-1	1.06E+04		6.52E-01	2.50E+00	2.60E+07	1.55E+05	4.53E+03	1.63E+04
B9 14-15'	7429-90-5	SW6010B	11/11/2009	-14	-15	6.59E+03		6.33E-01	2.50E+00	2.60E+07	1.55E+05		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Aniline

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	62-53-3	SW8270C	8/31/2009	0	-1	2.84E-01	U	2.84E-01	6.60E-01	1.49E+00	8.59E+01		
B1 0-1'	62-53-3	SW8270C	11/11/2009	0	-1	2.93E-01	U	2.93E-01	6.60E-01	1.49E+00	8.59E+01		
B1 14-15'	62-53-3	SW8270C	11/11/2009	-14	-15	2.64E-01	U	2.64E-01	6.60E-01	1.49E+00	8.59E+01		
B10-1	62-53-3	SW8270C	9/2/2009	-2	-3	3.38E-01	U	3.38E-01	6.60E-01	1.49E+00	8.59E+01		
B10-2	62-53-3	SW8270C	9/2/2009	-13	-14	2.88E-01	U	2.88E-01	6.60E-01	1.49E+00	8.59E+01		
B2 1-1.5	62-53-3	SW8270C	9/1/2009	-1	-1.5	2.68E-01	U	2.68E-01	6.60E-01	1.49E+00	8.59E+01		
B2 21-22.5	62-53-3	SW8270C	9/1/2009	-21	-22.5	3.17E-01	U	3.17E-01	6.60E-01	1.49E+00	8.59E+01		
B3 12-13	62-53-3	SW8270C	8/31/2009	-12	-13	2.55E-01	U	2.55E-01	6.60E-01	1.49E+00	8.59E+01		
B3 2-3	62-53-3	SW8270C	8/31/2009	-2	-3	2.98E-01	U	2.98E-01	6.60E-01	1.49E+00	8.59E+01		
B4 14-14.5	62-53-3	SW8270C	9/1/2009	-14	-14.5	2.86E-01	U	2.86E-01	6.60E-01	1.49E+00	8.59E+01		
B4 2-2.5	62-53-3	SW8270C	9/1/2009	-2	-2.5	3.09E-01	U	3.09E-01	6.60E-01	1.49E+00	8.59E+01		
B5-1	62-53-3	SW8270C	9/2/2009	-1	-1.5	3.04E-01	U	3.04E-01	6.60E-01	1.49E+00	8.59E+01		
B5-2	62-53-3	SW8270C	9/2/2009	-14.5	-15	2.90E-01	U	2.90E-01	6.60E-01	1.49E+00	8.59E+01		
B6-1	62-53-3	SW8270C	9/2/2009	-0.5	-1	2.81E-01	U	2.81E-01	6.60E-01	1.49E+00	8.59E+01		
B6-2	62-53-3	SW8270C	9/2/2009	-14.5	-15	2.90E-01	U	2.90E-01	6.60E-01	1.49E+00	8.59E+01		
B7 0-1'	62-53-3	SW8270C	11/11/2009	0	-1	2.71E-01	U	2.71E-01	6.60E-01	1.49E+00	8.59E+01		
B7 14-15'	62-53-3	SW8270C	11/11/2009	-14	-15	2.79E-01	U	2.79E-01	6.60E-01	1.49E+00	8.59E+01		
B8-1	62-53-3	SW8270C	9/2/2009	-1	-1.5	2.87E-01	U	2.87E-01	6.60E-01	1.49E+00	8.59E+01		
B8-2	62-53-3	SW8270C	9/2/2009	-14	-15	2.79E-01	U	2.79E-01	6.60E-01	1.49E+00	8.59E+01		
B9 0-1'	62-53-3	SW8270C	11/11/2009	0	-1	2.86E-01	U	2.86E-01	6.60E-01	1.49E+00	8.59E+01		
B9 14-15'	62-53-3	SW8270C	11/11/2009	-14	-15	2.78E-01	U	2.78E-01	6.60E-01	1.49E+00	8.59E+01		

Anthracene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	120-12-7	SW8270C	8/31/2009	0	-1	1.28E-01	U	1.28E-01	3.30E-01	1.10E+03	4.11E+04		
B1 0-1'	120-12-7	SW8270C	11/11/2009	0	-1	1.32E-01	U	1.32E-01	3.30E-01	1.10E+03	4.11E+04		
B1 14-15'	120-12-7	SW8270C	11/11/2009	-14	-15	1.19E-01	U	1.19E-01	3.30E-01	1.10E+03	4.11E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Anthracene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-1	120-12-7	SW8270C	9/2/2009	-2	-3	1.53E-01	U	1.53E-01	3.30E-01	1.10E+03	4.11E+04		
B10-2	120-12-7	SW8270C	9/2/2009	-13	-14	1.30E-01	U	1.30E-01	3.30E-01	1.10E+03	4.11E+04		
B2 1-1.5	120-12-7	SW8270C	9/1/2009	-1	-1.5	1.21E-01	U	1.21E-01	3.30E-01	1.10E+03	4.11E+04		
B2 21-22.5	120-12-7	SW8270C	9/1/2009	-21	-22.5	1.43E-01	U	1.43E-01	3.30E-01	1.10E+03	4.11E+04		
B3 12-13	120-12-7	SW8270C	8/31/2009	-12	-13	1.15E-01	U	1.15E-01	3.30E-01	1.10E+03	4.11E+04		
B3 2-3	120-12-7	SW8270C	8/31/2009	-2	-3	1.35E-01	U	1.34E-01	3.30E-01	1.10E+03	4.11E+04		
B4 14-14.5	120-12-7	SW8270C	9/1/2009	-14	-14.5	1.29E-01	U	1.29E-01	3.30E-01	1.10E+03	4.11E+04		
B4 2-2.5	120-12-7	SW8270C	9/1/2009	-2	-2.5	1.39E-01	U	1.39E-01	3.30E-01	1.10E+03	4.11E+04		
B5-1	120-12-7	SW8270C	9/2/2009	-1	-1.5	1.37E-01	U	1.37E-01	3.30E-01	1.10E+03	4.11E+04		
B5-2	120-12-7	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	1.10E+03	4.11E+04		
B6-1	120-12-7	SW8270C	9/2/2009	-0.5	-1	1.27E-01	U	1.27E-01	3.30E-01	1.10E+03	4.11E+04		
B6-2	120-12-7	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	1.10E+03	4.11E+04		
B7 0-1'	120-12-7	SW8270C	11/11/2009	0	-1	1.22E-01	U	1.22E-01	3.30E-01	1.10E+03	4.11E+04		
B7 14-15'	120-12-7	SW8270C	11/11/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	1.10E+03	4.11E+04		
B8-1	120-12-7	SW8270C	9/2/2009	-1	-1.5	1.29E-01	U	1.29E-01	3.30E-01	1.10E+03	4.11E+04		
B8-2	120-12-7	SW8270C	9/2/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	1.10E+03	4.11E+04		
B9 0-1'	120-12-7	SW8270C	11/11/2009	0	-1	1.29E-01	U	1.29E-01	3.30E-01	1.10E+03	4.11E+04		
B9 14-15'	120-12-7	SW8270C	11/11/2009	-14	-15	1.25E-01	U	1.25E-01	3.30E-01	1.10E+03	4.11E+04		

Antimony

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-36-0	SW6010B	8/31/2009	0	-1	6.63E-01	U	6.63E-01	2.50E+00	8.20E+00	7.25E+01	2.34E-01	9.40E-01
B1 0-1'	7440-36-0	SW6010B	11/11/2009	0	-1	8.23E-01	U	8.23E-01	2.50E+00	8.20E+00	7.25E+01	2.34E-01	9.40E-01
B1 14-15'	7440-36-0	SW6010B	11/11/2009	-14	-15	7.41E-01	U	7.41E-01	2.50E+00	8.20E+00	7.25E+01		
B10-1	7440-36-0	SW6010B	9/2/2009	-2	-3	7.91E-01	U	7.91E-01	2.50E+00	8.20E+00	7.25E+01	4.68E-01	1.60E+00
B10-2	7440-36-0	SW6010B	9/2/2009	-13	-14	6.73E-01	U	6.73E-01	2.50E+00	8.20E+00	7.25E+01		
B2 1-1.5	7440-36-0	SW6010B	9/1/2009	-1	-1.5	6.26E-01	U	6.26E-01	2.50E+00	8.20E+00	7.25E+01	4.68E-01	1.60E+00

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Antimony

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B2 21-22.5	7440-36-0	SW6010B	9/1/2009	-21	-22.5	7.41E-01	U	7.41E-01	2.50E+00	8.20E+00	7.25E+01		
B3 12-13	7440-36-0	SW6010B	8/31/2009	-12	-13	9.22E+00		5.96E-01	2.50E+00	8.20E+00	7.25E+01		
B3 2-3	7440-36-0	SW6010B	8/31/2009	-2	-3	6.97E-01	U	6.97E-01	2.50E+00	8.20E+00	7.25E+01	4.68E-01	1.60E+00
B4 14-14.5	7440-36-0	SW6010B	9/1/2009	-14	-14.5	6.69E-01	U	6.69E-01	2.50E+00	8.20E+00	7.25E+01		
B4 2-2.5	7440-36-0	SW6010B	9/1/2009	-2	-2.5	7.22E-01	U	7.22E-01	2.50E+00	8.20E+00	7.25E+01	4.68E-01	1.60E+00
B5-1	7440-36-0	SW6010B	9/2/2009	-1	-1.5	7.11E-01	U	7.11E-01	2.50E+00	8.20E+00	7.25E+01	4.68E-01	1.60E+00
B5-2	7440-36-0	SW6010B	9/2/2009	-14.5	-15	6.77E-01	U	6.77E-01	2.50E+00	8.20E+00	7.25E+01		
B6-1	7440-36-0	SW6010B	9/2/2009	-0.5	-1	3.85E+00		6.57E-01	2.50E+00	8.20E+00	7.25E+01	2.34E-01	9.40E-01
B6-2	7440-36-0	SW6010B	9/2/2009	-14.5	-15	6.77E-01	U	6.77E-01	2.50E+00	8.20E+00	7.25E+01		
B7 0-1'	7440-36-0	SW6010B	11/11/2009	0	-1	7.60E-01	U	7.60E-01	2.50E+00	8.20E+00	7.25E+01	2.34E-01	9.40E-01
B7 14-15'	7440-36-0	SW6010B	11/11/2009	-14	-15	7.84E-01	U	7.84E-01	2.50E+00	8.20E+00	7.25E+01		
B8-1	7440-36-0	SW6010B	9/2/2009	-1	-1.5	6.70E-01	U	6.70E-01	2.50E+00	8.20E+00	7.25E+01	4.68E-01	1.60E+00
B8-2	7440-36-0	SW6010B	9/2/2009	-14	-15	6.51E-01	U	6.51E-01	2.50E+00	8.20E+00	7.25E+01		
B9 0-1'	7440-36-0	SW6010B	11/11/2009	0	-1	8.03E-01	U	8.03E-01	2.50E+00	8.20E+00	7.25E+01	2.34E-01	9.40E-01
B9 14-15'	7440-36-0	SW6010B	11/11/2009	-14	-15	7.80E-01	U	7.80E-01	2.50E+00	8.20E+00	7.25E+01		

Arsenic

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-38-2	SW6010B	8/31/2009	0	-1	3.66E+00		8.01E-01	1.50E+00	7.65E+00	2.00E+01	2.73E+00	6.12E+00
B1 0-1'	7440-38-2	SW6010B	11/11/2009	0	-1	5.59E+00		8.28E-01	1.50E+00	7.65E+00	2.00E+01	2.73E+00	6.12E+00
B1 14-15'	7440-38-2	SW6010B	11/11/2009	-14	-15	7.45E-01	U	7.45E-01	1.50E+00	7.65E+00	2.00E+01		
B10-1	7440-38-2	SW6010B	9/2/2009	-2	-3	9.56E-01	U	9.56E-01	1.50E+00	7.65E+00	2.00E+01	3.87E+00	6.15E+00
B10-2	7440-38-2	SW6010B	9/2/2009	-13	-14	8.14E-01	U	8.13E-01	1.50E+00	7.65E+00	2.00E+01		
B2 1-1.5	7440-38-2	SW6010B	9/1/2009	-1	-1.5	4.49E+00		7.57E-01	1.50E+00	7.65E+00	2.00E+01	3.87E+00	6.15E+00
B2 21-22.5	7440-38-2	SW6010B	9/1/2009	-21	-22.5	8.96E-01	U	8.96E-01	1.50E+00	7.65E+00	2.00E+01		
B3 12-13	7440-38-2	SW6010B	8/31/2009	-12	-13	7.21E-01	U	7.20E-01	1.50E+00	7.65E+00	2.00E+01		
B3 2-3	7440-38-2	SW6010B	8/31/2009	-2	-3	3.39E+00		8.42E-01	1.50E+00	7.65E+00	2.00E+01	3.87E+00	6.15E+00

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Arsenic

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 14-14.5	7440-38-2	SW6010B	9/1/2009	-14	-14.5	4.39E+00		8.09E-01	1.50E+00	7.65E+00	2.00E+01		
B4 2-2.5	7440-38-2	SW6010B	9/1/2009	-2	-2.5	3.18E+00		8.73E-01	1.50E+00	7.65E+00	2.00E+01	3.87E+00	6.15E+00
B5-1	7440-38-2	SW6010B	9/2/2009	-1	-1.5	8.59E-01	U	8.59E-01	1.50E+00	7.65E+00	2.00E+01	3.87E+00	6.15E+00
B5-2	7440-38-2	SW6010B	9/2/2009	-14.5	-15	8.18E-01	U	8.18E-01	1.50E+00	7.65E+00	2.00E+01		
B6-1	7440-38-2	SW6010B	9/2/2009	-0.5	-1	7.94E-01	U	7.94E-01	1.50E+00	7.65E+00	2.00E+01	2.73E+00	6.12E+00
B6-2	7440-38-2	SW6010B	9/2/2009	-14.5	-15	4.18E+00		8.18E-01	1.50E+00	7.65E+00	2.00E+01		
B7 0-1'	7440-38-2	SW6010B	11/11/2009	0	-1	7.65E-01	U	7.65E-01	1.50E+00	7.65E+00	2.00E+01	2.73E+00	6.12E+00
B7 14-15'	7440-38-2	SW6010B	11/11/2009	-14	-15	7.88E-01	U	7.88E-01	1.50E+00	7.65E+00	2.00E+01		
B8-1	7440-38-2	SW6010B	9/2/2009	-1	-1.5	3.90E+00		8.10E-01	1.50E+00	7.65E+00	2.00E+01	3.87E+00	6.15E+00
B8-2	7440-38-2	SW6010B	9/2/2009	-14	-15	7.87E-01	U	7.87E-01	1.50E+00	7.65E+00	2.00E+01		
B9 0-1'	7440-38-2	SW6010B	11/11/2009	0	-1	8.08E-01	U	8.08E-01	1.50E+00	7.65E+00	2.00E+01	2.73E+00	6.12E+00
B9 14-15'	7440-38-2	SW6010B	11/11/2009	-14	-15	4.92E+00		7.85E-01	1.50E+00	7.65E+00	2.00E+01		

Barium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-39-3	SW6010B	8/31/2009	0	-1	9.85E+01		2.44E-01	1.00E+00	4.00E+02	2.61E+04	7.76E+01	2.05E+02
B1 0-1'	7440-39-3	SW6010B	11/11/2009	0	-1	1.42E+02		2.52E-01	1.00E+00	4.00E+02	2.61E+04	7.76E+01	2.05E+02
B1 14-15'	7440-39-3	SW6010B	11/11/2009	-14	-15	3.53E+01		2.27E-01	1.00E+00	4.00E+02	2.61E+04		
B10-1	7440-39-3	SW6010B	9/2/2009	-2	-3	1.83E+02		2.91E-01	1.00E+00	4.00E+02	2.61E+04	5.89E+01	9.89E+01
B10-2	7440-39-3	SW6010B	9/2/2009	-13	-14	3.73E+01		2.48E-01	1.00E+00	4.00E+02	2.61E+04		
B2 1-1.5	7440-39-3	SW6010B	9/1/2009	-1	-1.5	9.59E+01		2.31E-01	1.00E+00	4.00E+02	2.61E+04	5.89E+01	9.89E+01
B2 21-22.5	7440-39-3	SW6010B	9/1/2009	-21	-22.5	1.25E+02		2.73E-01	1.00E+00	4.00E+02	2.61E+04		
B3 12-13	7440-39-3	SW6010B	8/31/2009	-12	-13	3.46E+01		2.20E-01	1.00E+00	4.00E+02	2.61E+04		
B3 2-3	7440-39-3	SW6010B	8/31/2009	-2	-3	1.23E+02		2.57E-01	1.00E+00	4.00E+02	2.61E+04	5.89E+01	9.89E+01
B4 14-14.5	7440-39-3	SW6010B	9/1/2009	-14	-14.5	1.81E+02		2.46E-01	1.00E+00	4.00E+02	2.61E+04		
B4 2-2.5	7440-39-3	SW6010B	9/1/2009	-2	-2.5	1.62E+02		2.66E-01	1.00E+00	4.00E+02	2.61E+04	5.89E+01	9.89E+01
B5-1	7440-39-3	SW6010B	9/2/2009	-1	-1.5	1.41E+02		2.62E-01	1.00E+00	4.00E+02	2.61E+04	5.89E+01	9.89E+01

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Barium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B5-2	7440-39-3	SW6010B	9/2/2009	-14.5	-15	1.86E+02		2.49E-01	1.00E+00	4.00E+02	2.61E+04		
B6-1	7440-39-3	SW6010B	9/2/2009	-0.5	-1	1.27E+02		2.42E-01	1.00E+00	4.00E+02	2.61E+04	7.76E+01	2.05E+02
B6-2	7440-39-3	SW6010B	9/2/2009	-14.5	-15	1.13E+02		2.49E-01	1.00E+00	4.00E+02	2.61E+04		
B7 0-1'	7440-39-3	SW6010B	11/11/2009	0	-1	3.92E+01		2.33E-01	1.00E+00	4.00E+02	2.61E+04	7.76E+01	2.05E+02
B7 14-15'	7440-39-3	SW6010B	11/11/2009	-14	-15	1.42E+02		2.40E-01	1.00E+00	4.00E+02	2.61E+04		
B8-1	7440-39-3	SW6010B	9/2/2009	-1	-1.5	5.37E+01		2.47E-01	1.00E+00	4.00E+02	2.61E+04	5.89E+01	9.89E+01
B8-2	7440-39-3	SW6010B	9/2/2009	-14	-15	7.27E+01		2.40E-01	1.00E+00	4.00E+02	2.61E+04		
B9 0-1'	7440-39-3	SW6010B	11/11/2009	0	-1	7.34E+01		2.46E-01	1.00E+00	4.00E+02	2.61E+04	7.76E+01	2.05E+02
B9 14-15'	7440-39-3	SW6010B	11/11/2009	-14	-15	7.65E+01		2.39E-01	1.00E+00	4.00E+02	2.61E+04		

Benzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	71-43-2	SW8260B	8/31/2009	0	-1	6.73E-04	U	6.73E-04	5.00E-03	5.00E-01	8.82E-01		
B1 0-1'	71-43-2	SW8260B	11/11/2009	0	-1	1.01E-03	U	1.01E-03	5.00E-03	5.00E-01	8.82E-01		
B1 14-15'	71-43-2	SW8260B	11/11/2009	-14	-15	7.32E-04	U	7.32E-04	5.00E-03	5.00E-01	8.82E-01		
B10-1	71-43-2	SW8260B	9/2/2009	-2	-3	8.03E-04	U	8.03E-04	5.00E-03	5.00E-01	8.82E-01		
B10-2	71-43-2	SW8260B	9/2/2009	-13	-14	6.84E-04	U	6.84E-04	5.00E-03	5.00E-01	8.82E-01		
B2 1-1.5	71-43-2	SW8260B	9/1/2009	-1	-1.5	6.36E-04	U	6.36E-04	5.00E-03	5.00E-01	8.82E-01		
B2 21-22.5	71-43-2	SW8260B	9/1/2009	-21	-22.5	7.53E-04	U	7.53E-04	5.00E-03	5.00E-01	8.82E-01		
B3 12-13	71-43-2	SW8260B	8/31/2009	-12	-13	6.06E-04	U	6.05E-04	5.00E-03	5.00E-01	8.82E-01		
B3 2-3	71-43-2	SW8260B	8/31/2009	-2	-3	7.08E-04	U	7.08E-04	5.00E-03	5.00E-01	8.82E-01		
B4 14.5-15	71-43-2	SW8260B	9/1/2009	-14.5	-15	6.88E-04	U	6.88E-04	5.00E-03	5.00E-01	8.82E-01		
B4 2-2.5	71-43-2	SW8260B	9/1/2009	-2	-2.5	7.34E-04	U	7.34E-04	5.00E-03	5.00E-01	8.82E-01		
B5-1	71-43-2	SW8260B	9/2/2009	-1	-1.5	7.22E-04	U	7.22E-04	5.00E-03	5.00E-01	8.82E-01		
B5-2	71-43-2	SW8260B	9/2/2009	-14.5	-15	6.88E-04	U	6.88E-04	5.00E-03	5.00E-01	8.82E-01		
B6-1	71-43-2	SW8260B	9/2/2009	-0.5	-1	6.67E-04	U	6.67E-04	5.00E-03	5.00E-01	8.82E-01		
B6-2	71-43-2	SW8260B	9/2/2009	-14.5	-15	6.88E-04	U	6.88E-04	5.00E-03	5.00E-01	8.82E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Benzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 0-1'	71-43-2	SW8260B	11/11/2009	0	-1	7.93E-04	U	7.93E-04	5.00E-03	5.00E-01	8.82E-01		
B7 14-15'	71-43-2	SW8260B	11/11/2009	-14	-15	8.66E-04	U	8.66E-04	5.00E-03	5.00E-01	8.82E-01		
B8-1	71-43-2	SW8260B	9/2/2009	-1	-1.5	6.80E-04	U	6.80E-04	5.00E-03	5.00E-01	8.82E-01		
B8-2	71-43-2	SW8260B	9/2/2009	-14	-15	6.62E-04	U	6.62E-04	5.00E-03	5.00E-01	8.82E-01		
B8-3	71-43-2	SW8260B	9/2/2009	-8	-8.5	7.18E-04	U	7.17E-04	5.00E-03	5.00E-01	8.82E-01		
B9 0-1'	71-43-2	SW8260B	11/11/2009	0	-1	9.33E-04	U	9.33E-04	5.00E-03	5.00E-01	8.82E-01		
B9 14-15'	71-43-2	SW8260B	11/11/2009	-14	-15	8.55E-04	U	8.55E-04	5.00E-03	5.00E-01	8.82E-01		

Benzidine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	92-87-5	SW8270C	8/31/2009	0	-1	4.53E-02	U	4.53E-02	1.00E-01	3.70E-05	2.13E-03		
B1 0-1	92-87-5	SW8270C	8/31/2009	0	-1	2.91E-01	U	2.91E-01	6.60E-01	3.70E-05	2.13E-03		
B1 0-1'	92-87-5	SW8270C	11/11/2009	0	-1	4.69E-02	U	4.69E-02	1.00E-01	3.70E-05	2.13E-03		
B1 14-15'	92-87-5	SW8270C	11/11/2009	-14	-15	4.22E-02	U	4.22E-02	1.00E-01	3.70E-05	2.13E-03		
B10-1	92-87-5	SW8270C	9/2/2009	-2	-3	5.41E-02	U	5.41E-02	1.00E-01	3.70E-05	2.13E-03		
B10-1	92-87-5	SW8270C	9/2/2009	-2	-3	3.47E-01	U	3.47E-01	6.60E-01	3.70E-05	2.13E-03		
B10-2	92-87-5	SW8270C	9/2/2009	-13	-14	2.95E-01	U	2.95E-01	6.60E-01	3.70E-05	2.13E-03		
B10-2	92-87-5	SW8270C	9/2/2009	-13	-14	4.60E-02	U	4.60E-02	1.00E-01	3.70E-05	2.13E-03		
B2 1-1.5	92-87-5	SW8270C	9/1/2009	-1	-1.5	2.75E-01	U	2.75E-01	6.60E-01	3.70E-05	2.13E-03		
B2 1-1.5	92-87-5	SW8270C	9/1/2009	-1	-1.5	4.29E-02	U	4.29E-02	1.00E-01	3.70E-05	2.13E-03		
B2 21-22.5	92-87-5	SW8270C	9/1/2009	-21	-22.5	5.07E-02	U	5.07E-02	1.00E-01	3.70E-05	2.13E-03		
B2 21-22.5	92-87-5	SW8270C	9/1/2009	-21	-22.5	3.25E-01	U	3.25E-01	6.60E-01	3.70E-05	2.13E-03		
B3 12-13	92-87-5	SW8270C	8/31/2009	-12	-13	4.08E-02	U	4.08E-02	1.00E-01	3.70E-05	2.13E-03		
B3 12-13	92-87-5	SW8270C	8/31/2009	-12	-13	2.61E-01	U	2.61E-01	6.60E-01	3.70E-05	2.13E-03		
B3 2-3	92-87-5	SW8270C	8/31/2009	-2	-3	3.06E-01	U	3.06E-01	6.60E-01	3.70E-05	2.13E-03		
B3 2-3	92-87-5	SW8270C	8/31/2009	-2	-3	4.77E-02	U	4.77E-02	1.00E-01	3.70E-05	2.13E-03		
B4 14-14.5	92-87-5	SW8270C	9/1/2009	-14	-14.5	2.93E-01	U	2.93E-01	6.60E-01	3.70E-05	2.13E-03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Benzidine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 14-14.5	92-87-5	SW8270C	9/1/2009	-14	-14.5	4.58E-02	U	4.58E-02	1.00E-01	3.70E-05	2.13E-03		
B4 2-2.5	92-87-5	SW8270C	9/1/2009	-2	-2.5	3.17E-01	U	3.17E-01	6.60E-01	3.70E-05	2.13E-03		
B4 2-2.5	92-87-5	SW8270C	9/1/2009	-2	-2.5	4.94E-02	U	4.94E-02	1.00E-01	3.70E-05	2.13E-03		
B5-1	92-87-5	SW8270C	9/2/2009	-1	-1.5	3.12E-01	U	3.12E-01	6.60E-01	3.70E-05	2.13E-03		
B5-1	92-87-5	SW8270C	9/2/2009	-1	-1.5	4.86E-02	U	4.86E-02	1.00E-01	3.70E-05	2.13E-03		
B5-2	92-87-5	SW8270C	9/2/2009	-14.5	-15	4.63E-02	U	4.63E-02	1.00E-01	3.70E-05	2.13E-03		
B5-2	92-87-5	SW8270C	9/2/2009	-14.5	-15	2.97E-01	U	2.97E-01	6.60E-01	3.70E-05	2.13E-03		
B6-1	92-87-5	SW8270C	9/2/2009	-0.5	-1	4.49E-02	U	4.49E-02	1.00E-01	3.70E-05	2.13E-03		
B6-1	92-87-5	SW8270C	9/2/2009	-0.5	-1	2.88E-01	U	2.88E-01	6.60E-01	3.70E-05	2.13E-03		
B6-2	92-87-5	SW8270C	9/2/2009	-14.5	-15	4.63E-02	U	4.63E-02	1.00E-01	3.70E-05	2.13E-03		
B6-2	92-87-5	SW8270C	9/2/2009	-14.5	-15	2.97E-01	U	2.97E-01	6.60E-01	3.70E-05	2.13E-03		
B7 0-1'	92-87-5	SW8270C	11/11/2009	0	-1	4.33E-02	U	4.33E-02	1.00E-01	3.70E-05	2.13E-03		
B7 14-15'	92-87-5	SW8270C	11/11/2009	-14	-15	4.46E-02	U	4.46E-02	1.00E-01	3.70E-05	2.13E-03		
B8-1	92-87-5	SW8270C	9/2/2009	-1	-1.5	4.58E-02	U	4.58E-02	1.00E-01	3.70E-05	2.13E-03		
B8-1	92-87-5	SW8270C	9/2/2009	-1	-1.5	2.94E-01	U	2.94E-01	6.60E-01	3.70E-05	2.13E-03		
B8-2	92-87-5	SW8270C	9/2/2009	-14	-15	2.86E-01	U	2.86E-01	6.60E-01	3.70E-05	2.13E-03		
B8-2	92-87-5	SW8270C	9/2/2009	-14	-15	4.46E-02	U	4.46E-02	1.00E-01	3.70E-05	2.13E-03		
B9 0-1'	92-87-5	SW8270C	11/11/2009	0	-1	4.57E-02	U	4.57E-02	1.00E-01	3.70E-05	2.13E-03		
B9 14-15'	92-87-5	SW8270C	11/11/2009	-14	-15	4.44E-02	U	4.44E-02	1.00E-01	3.70E-05	2.13E-03		

Benzo(a)anthracene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	56-55-3	SW8270C	8/31/2009	0	-1	2.53E-02	U	2.53E-02	3.30E-01	1.77E+01	6.26E-01		
B1 0-1	56-55-3	SW8270C	8/31/2009	0	-1	2.05E-02	U	2.05E-02	3.33E-02	1.77E+01	6.26E-01		
B1 0-1'	56-55-3	SW8270C	11/11/2009	0	-1	2.62E-02	U	2.62E-02	3.30E-01	1.77E+01	6.26E-01		
B1 0-1'	56-55-3	SW8270C	11/11/2009	0	-1	2.12E-02	U	2.12E-02	6.60E-02	1.77E+01	6.26E-01		
B1 14-15'	56-55-3	SW8270C	11/11/2009	-14	-15	1.90E-02	U	1.90E-02	6.60E-02	1.77E+01	6.26E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Benzo(a)anthracene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 14-15'	56-55-3	SW8270C	11/11/2009	-14	-15	2.36E-02	U	2.36E-02	3.30E-01	1.77E+01	6.26E-01		
B10-1	56-55-3	SW8270C	9/2/2009	-2	-3	2.44E-02	U	2.44E-02	3.33E-02	1.77E+01	6.26E-01		
B10-1	56-55-3	SW8270C	9/2/2009	-2	-3	3.02E-02	U	3.02E-02	3.30E-01	1.77E+01	6.26E-01		
B10-2	56-55-3	SW8270C	9/2/2009	-13	-14	2.57E-02	U	2.57E-02	3.30E-01	1.77E+01	6.26E-01		
B10-2	56-55-3	SW8270C	9/2/2009	-13	-14	2.08E-02	U	2.08E-02	3.33E-02	1.77E+01	6.26E-01		
B2 1-1.5	56-55-3	SW8270C	9/1/2009	-1	-1.5	2.40E-02	U	2.40E-02	3.30E-01	1.77E+01	6.26E-01		
B2 1-1.5	56-55-3	SW8270C	9/1/2009	-1	-1.5	1.93E-02	U	1.93E-02	3.33E-02	1.77E+01	6.26E-01		
B2 21-22.5	56-55-3	SW8270C	9/1/2009	-21	-22.5	2.29E-02	U	2.29E-02	3.33E-02	1.77E+01	6.26E-01		
B2 21-22.5	56-55-3	SW8270C	9/1/2009	-21	-22.5	2.83E-02	U	2.83E-02	3.30E-01	1.77E+01	6.26E-01		
B3 12-13	56-55-3	SW8270C	8/31/2009	-12	-13	2.28E-02	U	2.28E-02	3.30E-01	1.77E+01	6.26E-01		
B3 12-13	56-55-3	SW8270C	8/31/2009	-12	-13	1.84E-02	U	1.84E-02	3.33E-02	1.77E+01	6.26E-01		
B3 2-3	56-55-3	SW8270C	8/31/2009	-2	-3	2.15E-02	U	2.15E-02	3.33E-02	1.77E+01	6.26E-01		
B3 2-3	56-55-3	SW8270C	8/31/2009	-2	-3	2.67E-02	U	2.67E-02	3.30E-01	1.77E+01	6.26E-01		
B4 14-14.5	56-55-3	SW8270C	9/1/2009	-14	-14.5	2.07E-02	U	2.07E-02	3.33E-02	1.77E+01	6.26E-01		
B4 14-14.5	56-55-3	SW8270C	9/1/2009	-14	-14.5	2.56E-02	U	2.56E-02	3.30E-01	1.77E+01	6.26E-01		
B4 2-2.5	56-55-3	SW8270C	9/1/2009	-2	-2.5	2.76E-02	U	2.76E-02	3.30E-01	1.77E+01	6.26E-01		
B4 2-2.5	56-55-3	SW8270C	9/1/2009	-2	-2.5	2.23E-02	U	2.23E-02	3.33E-02	1.77E+01	6.26E-01		
B5-1	56-55-3	SW8270C	9/2/2009	-1	-1.5	2.72E-02	U	2.72E-02	3.30E-01	1.77E+01	6.26E-01		
B5-1	56-55-3	SW8270C	9/2/2009	-1	-1.5	2.19E-02	U	2.19E-02	3.33E-02	1.77E+01	6.26E-01		
B5-2	56-55-3	SW8270C	9/2/2009	-14.5	-15	2.09E-02	U	2.09E-02	3.33E-02	1.77E+01	6.26E-01		
B5-2	56-55-3	SW8270C	9/2/2009	-14.5	-15	2.59E-02	U	2.59E-02	3.30E-01	1.77E+01	6.26E-01		
B6-1	56-55-3	SW8270C	9/2/2009	-0.5	-1	2.03E-02	U	2.03E-02	3.33E-02	1.77E+01	6.26E-01		
B6-1	56-55-3	SW8270C	9/2/2009	-0.5	-1	2.51E-02	U	2.51E-02	3.30E-01	1.77E+01	6.26E-01		
B6-2	56-55-3	SW8270C	9/2/2009	-14.5	-15	2.09E-02	U	2.09E-02	3.33E-02	1.77E+01	6.26E-01		
B6-2	56-55-3	SW8270C	9/2/2009	-14.5	-15	2.59E-02	U	2.59E-02	3.30E-01	1.77E+01	6.26E-01		
B7 0-1'	56-55-3	SW8270C	11/11/2009	0	-1	1.95E-02	U	1.95E-02	6.60E-02	1.77E+01	6.26E-01		
B7 0-1'	56-55-3	SW8270C	11/11/2009	0	-1	2.42E-02	U	2.42E-02	3.30E-01	1.77E+01	6.26E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Benzo(a)anthracene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 14-15'	56-55-3	SW8270C	11/11/2009	-14	-15	2.49E-02	U	2.49E-02	3.30E-01	1.77E+01	6.26E-01		
B7 14-15'	56-55-3	SW8270C	11/11/2009	-14	-15	2.01E-02	U	2.01E-02	6.60E-02	1.77E+01	6.26E-01		
B8-1	56-55-3	SW8270C	9/2/2009	-1	-1.5	2.07E-02	U	2.07E-02	3.33E-02	1.77E+01	6.26E-01		
B8-1	56-55-3	SW8270C	9/2/2009	-1	-1.5	2.56E-02	U	2.56E-02	3.30E-01	1.77E+01	6.26E-01		
B8-2	56-55-3	SW8270C	9/2/2009	-14	-15	2.49E-02	U	2.49E-02	3.30E-01	1.77E+01	6.26E-01		
B8-2	56-55-3	SW8270C	9/2/2009	-14	-15	2.01E-02	U	2.01E-02	3.33E-02	1.77E+01	6.26E-01		
B9 0-1'	56-55-3	SW8270C	11/11/2009	0	-1	2.56E-02	U	2.56E-02	3.30E-01	1.77E+01	6.26E-01		
B9 0-1'	56-55-3	SW8270C	11/11/2009	0	-1	2.06E-02	U	2.06E-02	6.60E-02	1.77E+01	6.26E-01		
B9 14-15'	56-55-3	SW8270C	11/11/2009	-14	-15	2.00E-02	U	2.00E-02	6.60E-02	1.77E+01	6.26E-01		
B9 14-15'	56-55-3	SW8270C	11/11/2009	-14	-15	2.48E-02	U	2.48E-02	3.30E-01	1.77E+01	6.26E-01		

Benzo(a)pyrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	50-32-8	SW8270C	8/31/2009	0	-1	1.08E-02	U	1.08E-02	3.33E-02	2.00E-02	6.26E-02		
B1 0-1	50-32-8	SW8270C	8/31/2009	0	-1	6.55E-02	U	6.55E-02	3.30E-01	2.00E-02	6.26E-02		
B1 0-1'	50-32-8	SW8270C	11/11/2009	0	-1	6.77E-02	U	6.77E-02	3.30E-01	2.00E-02	6.26E-02		
B1 0-1'	50-32-8	SW8270C	11/11/2009	0	-1	1.12E-02	U	1.12E-02	3.00E-02	2.00E-02	6.26E-02		
B1 14-15'	50-32-8	SW8270C	11/11/2009	-14	-15	1.01E-02	U	1.01E-02	3.00E-02	2.00E-02	6.26E-02		
B1 14-15'	50-32-8	SW8270C	11/11/2009	-14	-15	6.09E-02	U	6.09E-02	3.30E-01	2.00E-02	6.26E-02		
B10-1	50-32-8	SW8270C	9/2/2009	-2	-3	1.28E-02	U	1.28E-02	3.33E-02	2.00E-02	6.26E-02		
B10-1	50-32-8	SW8270C	9/2/2009	-2	-3	7.81E-02	U	7.81E-02	3.30E-01	2.00E-02	6.26E-02		
B10-2	50-32-8	SW8270C	9/2/2009	-13	-14	1.09E-02	U	1.09E-02	3.33E-02	2.00E-02	6.26E-02		
B10-2	50-32-8	SW8270C	9/2/2009	-13	-14	6.65E-02	U	6.65E-02	3.30E-01	2.00E-02	6.26E-02		
B2 1-1.5	50-32-8	SW8270C	9/1/2009	-1	-1.5	6.19E-02	U	6.19E-02	3.30E-01	2.00E-02	6.26E-02		
B2 1-1.5	50-32-8	SW8270C	9/1/2009	-1	-1.5	1.02E-02	U	1.02E-02	3.33E-02	2.00E-02	6.26E-02		
B2 21-22.5	50-32-8	SW8270C	9/1/2009	-21	-22.5	7.32E-02	U	7.32E-02	3.30E-01	2.00E-02	6.26E-02		
B2 21-22.5	50-32-8	SW8270C	9/1/2009	-21	-22.5	1.20E-02	U	1.20E-02	3.33E-02	2.00E-02	6.26E-02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Benzo(a)pyrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 12-13	50-32-8	SW8270C	8/31/2009	-12	-13	9.68E-03	U	9.68E-03	3.33E-02	2.00E-02	6.26E-02		
B3 12-13	50-32-8	SW8270C	8/31/2009	-12	-13	5.89E-02	U	5.89E-02	3.30E-01	2.00E-02	6.26E-02		
B3 2-3	50-32-8	SW8270C	8/31/2009	-2	-3	1.13E-02	U	1.13E-02	3.33E-02	2.00E-02	6.26E-02		
B3 2-3	50-32-8	SW8270C	8/31/2009	-2	-3	6.88E-02	U	6.88E-02	3.30E-01	2.00E-02	6.26E-02		
B4 14-14.5	50-32-8	SW8270C	9/1/2009	-14	-14.5	1.09E-02	U	1.09E-02	3.33E-02	2.00E-02	6.26E-02		
B4 14-14.5	50-32-8	SW8270C	9/1/2009	-14	-14.5	6.61E-02	U	6.61E-02	3.30E-01	2.00E-02	6.26E-02		
B4 2-2.5	50-32-8	SW8270C	9/1/2009	-2	-2.5	7.14E-02	U	7.14E-02	3.30E-01	2.00E-02	6.26E-02		
B4 2-2.5	50-32-8	SW8270C	9/1/2009	-2	-2.5	1.17E-02	U	1.17E-02	3.33E-02	2.00E-02	6.26E-02		
B5-1	50-32-8	SW8270C	9/2/2009	-1	-1.5	7.02E-02	U	7.02E-02	3.30E-01	2.00E-02	6.26E-02		
B5-1	50-32-8	SW8270C	9/2/2009	-1	-1.5	1.15E-02	U	1.15E-02	3.33E-02	2.00E-02	6.26E-02		
B5-2	50-32-8	SW8270C	9/2/2009	-14.5	-15	6.69E-02	U	6.69E-02	3.30E-01	2.00E-02	6.26E-02		
B5-2	50-32-8	SW8270C	9/2/2009	-14.5	-15	1.10E-02	U	1.10E-02	3.33E-02	2.00E-02	6.26E-02		
B6-1	50-32-8	SW8270C	9/2/2009	-0.5	-1	1.07E-02	U	1.07E-02	3.33E-02	2.00E-02	6.26E-02		
B6-1	50-32-8	SW8270C	9/2/2009	-0.5	-1	6.49E-02	U	6.49E-02	3.30E-01	2.00E-02	6.26E-02		
B6-2	50-32-8	SW8270C	9/2/2009	-14.5	-15	1.10E-02	U	1.10E-02	3.33E-02	2.00E-02	6.26E-02		
B6-2	50-32-8	SW8270C	9/2/2009	-14.5	-15	6.69E-02	U	6.69E-02	3.30E-01	2.00E-02	6.26E-02		
B7 0-1'	50-32-8	SW8270C	11/11/2009	0	-1	1.03E-02	U	1.03E-02	3.00E-02	2.00E-02	6.26E-02		
B7 0-1'	50-32-8	SW8270C	11/11/2009	0	-1	6.25E-02	U	6.25E-02	3.30E-01	2.00E-02	6.26E-02		
B7 14-15'	50-32-8	SW8270C	11/11/2009	-14	-15	1.06E-02	U	1.06E-02	3.00E-02	2.00E-02	6.26E-02		
B7 14-15'	50-32-8	SW8270C	11/11/2009	-14	-15	6.44E-02	U	6.44E-02	3.30E-01	2.00E-02	6.26E-02		
B8-1	50-32-8	SW8270C	9/2/2009	-1	-1.5	1.09E-02	U	1.09E-02	3.33E-02	2.00E-02	6.26E-02		
B8-1	50-32-8	SW8270C	9/2/2009	-1	-1.5	6.62E-02	U	6.62E-02	3.30E-01	2.00E-02	6.26E-02		
B8-2	50-32-8	SW8270C	9/2/2009	-14	-15	1.06E-02	U	1.06E-02	3.33E-02	2.00E-02	6.26E-02		
B8-2	50-32-8	SW8270C	9/2/2009	-14	-15	6.43E-02	U	6.43E-02	3.30E-01	2.00E-02	6.26E-02		
B9 0-1'	50-32-8	SW8270C	11/11/2009	0	-1	1.09E-02	U	1.09E-02	3.00E-02	2.00E-02	6.26E-02		
B9 0-1'	50-32-8	SW8270C	11/11/2009	0	-1	6.60E-02	U	6.60E-02	3.30E-01	2.00E-02	6.26E-02		
B9 14-15'	50-32-8	SW8270C	11/11/2009	-14	-15	6.41E-02	U	6.41E-02	3.30E-01	2.00E-02	6.26E-02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Benzo(a)pyrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B9 14-15'	50-32-8	SW8270C	11/11/2009	-14	-15	1.06E-02	U	1.06E-02	3.00E-02	2.00E-02	6.26E-02		

Benzo(b)fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	205-99-2	SW8270C	8/31/2009	0	-1	1.41E-02	U	1.41E-02	3.33E-02	2.00E-02	6.25E-01		
B1 0-1	205-99-2	SW8270C	8/31/2009	0	-1	9.37E-02	U	9.37E-02	3.30E-01	2.00E-02	6.25E-01		
B1 0-1'	205-99-2	SW8270C	11/11/2009	0	-1	1.45E-02	U	1.45E-02	3.00E-02	2.00E-02	6.25E-01		
B1 0-1'	205-99-2	SW8270C	11/11/2009	0	-1	9.69E-02	U	9.69E-02	3.30E-01	2.00E-02	6.25E-01		
B1 14-15'	205-99-2	SW8270C	11/11/2009	-14	-15	8.72E-02	U	8.72E-02	3.30E-01	2.00E-02	6.25E-01		
B1 14-15'	205-99-2	SW8270C	11/11/2009	-14	-15	1.31E-02	U	1.31E-02	3.00E-02	2.00E-02	6.25E-01		
B10-1	205-99-2	SW8270C	9/2/2009	-2	-3	1.68E-02	U	1.68E-02	3.33E-02	2.00E-02	6.25E-01		
B10-1	205-99-2	SW8270C	9/2/2009	-2	-3	1.12E-01	U	1.12E-01	3.30E-01	2.00E-02	6.25E-01		
B10-2	205-99-2	SW8270C	9/2/2009	-13	-14	1.43E-02	U	1.43E-02	3.33E-02	2.00E-02	6.25E-01		
B10-2	205-99-2	SW8270C	9/2/2009	-13	-14	9.52E-02	U	9.52E-02	3.30E-01	2.00E-02	6.25E-01		
B2 1-1.5	205-99-2	SW8270C	9/1/2009	-1	-1.5	1.33E-02	U	1.33E-02	3.33E-02	2.00E-02	6.25E-01		
B2 1-1.5	205-99-2	SW8270C	9/1/2009	-1	-1.5	8.86E-02	U	8.86E-02	3.30E-01	2.00E-02	6.25E-01		
B2 21-22.5	205-99-2	SW8270C	9/1/2009	-21	-22.5	1.05E-01	U	1.05E-01	3.30E-01	2.00E-02	6.25E-01		
B2 21-22.5	205-99-2	SW8270C	9/1/2009	-21	-22.5	1.57E-02	U	1.57E-02	3.33E-02	2.00E-02	6.25E-01		
B3 12-13	205-99-2	SW8270C	8/31/2009	-12	-13	1.27E-02	U	1.27E-02	3.33E-02	2.00E-02	6.25E-01		
B3 12-13	205-99-2	SW8270C	8/31/2009	-12	-13	8.43E-02	U	8.43E-02	3.30E-01	2.00E-02	6.25E-01		
B3 2-3	205-99-2	SW8270C	8/31/2009	-2	-3	1.48E-02	U	1.48E-02	3.33E-02	2.00E-02	6.25E-01		
B3 2-3	205-99-2	SW8270C	8/31/2009	-2	-3	9.85E-02	U	9.85E-02	3.30E-01	2.00E-02	6.25E-01		
B4 14-14.5	205-99-2	SW8270C	9/1/2009	-14	-14.5	1.42E-02	U	1.42E-02	3.33E-02	2.00E-02	6.25E-01		
B4 14-14.5	205-99-2	SW8270C	9/1/2009	-14	-14.5	9.46E-02	U	9.46E-02	3.30E-01	2.00E-02	6.25E-01		
B4 2-2.5	205-99-2	SW8270C	9/1/2009	-2	-2.5	1.53E-02	U	1.53E-02	3.33E-02	2.00E-02	6.25E-01		
B4 2-2.5	205-99-2	SW8270C	9/1/2009	-2	-2.5	1.02E-01	U	1.02E-01	3.30E-01	2.00E-02	6.25E-01		
B5-1	205-99-2	SW8270C	9/2/2009	-1	-1.5	1.51E-02	U	1.51E-02	3.33E-02	2.00E-02	6.25E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Benzo(b)fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B5-1	205-99-2	SW8270C	9/2/2009	-1	-1.5	1.01E-01	U	1.00E-01	3.30E-01	2.00E-02	6.25E-01		
B5-2	205-99-2	SW8270C	9/2/2009	-14.5	-15	1.44E-02	U	1.44E-02	3.33E-02	2.00E-02	6.25E-01		
B5-2	205-99-2	SW8270C	9/2/2009	-14.5	-15	9.57E-02	U	9.57E-02	3.30E-01	2.00E-02	6.25E-01		
B6-1	205-99-2	SW8270C	9/2/2009	-0.5	-1	1.39E-02	U	1.39E-02	3.33E-02	2.00E-02	6.25E-01		
B6-1	205-99-2	SW8270C	9/2/2009	-0.5	-1	9.29E-02	U	9.29E-02	3.30E-01	2.00E-02	6.25E-01		
B6-2	205-99-2	SW8270C	9/2/2009	-14.5	-15	9.57E-02	U	9.57E-02	3.30E-01	2.00E-02	6.25E-01		
B6-2	205-99-2	SW8270C	9/2/2009	-14.5	-15	1.44E-02	U	1.44E-02	3.33E-02	2.00E-02	6.25E-01		
B7 0-1'	205-99-2	SW8270C	11/11/2009	0	-1	8.95E-02	U	8.95E-02	3.30E-01	2.00E-02	6.25E-01		
B7 0-1'	205-99-2	SW8270C	11/11/2009	0	-1	1.34E-02	U	1.34E-02	3.00E-02	2.00E-02	6.25E-01		
B7 14-15'	205-99-2	SW8270C	11/11/2009	-14	-15	9.22E-02	U	9.22E-02	3.30E-01	2.00E-02	6.25E-01		
B7 14-15'	205-99-2	SW8270C	11/11/2009	-14	-15	1.38E-02	U	1.38E-02	3.00E-02	2.00E-02	6.25E-01		
B8-1	205-99-2	SW8270C	9/2/2009	-1	-1.5	1.42E-02	U	1.42E-02	3.33E-02	2.00E-02	6.25E-01		
B8-1	205-99-2	SW8270C	9/2/2009	-1	-1.5	9.47E-02	U	9.47E-02	3.30E-01	2.00E-02	6.25E-01		
B8-2	205-99-2	SW8270C	9/2/2009	-14	-15	1.38E-02	U	1.38E-02	3.33E-02	2.00E-02	6.25E-01		
B8-2	205-99-2	SW8270C	9/2/2009	-14	-15	9.21E-02	U	9.21E-02	3.30E-01	2.00E-02	6.25E-01		
B9 0-1'	205-99-2	SW8270C	11/11/2009	0	-1	1.42E-02	U	1.42E-02	3.00E-02	2.00E-02	6.25E-01		
B9 0-1'	205-99-2	SW8270C	11/11/2009	0	-1	9.45E-02	U	9.45E-02	3.30E-01	2.00E-02	6.25E-01		
B9 14-15'	205-99-2	SW8270C	11/11/2009	-14	-15	9.18E-02	U	9.18E-02	3.30E-01	2.00E-02	6.25E-01		
B9 14-15'	205-99-2	SW8270C	11/11/2009	-14	-15	1.38E-02	U	1.38E-02	3.00E-02	2.00E-02	6.25E-01		

Benzo(g,h,i)perylene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	191-24-2	SW8270C	8/31/2009	0	-1	1.28E-01	U	1.28E-01	3.30E-01	1.10E+02	4.11E+03		
B1 0-1'	191-24-2	SW8270C	11/11/2009	0	-1	1.32E-01	U	1.32E-01	3.30E-01	1.10E+02	4.11E+03		
B1 14-15'	191-24-2	SW8270C	11/11/2009	-14	-15	1.19E-01	U	1.19E-01	3.30E-01	1.10E+02	4.11E+03		
B10-1	191-24-2	SW8270C	9/2/2009	-2	-3	1.53E-01	U	1.53E-01	3.30E-01	1.10E+02	4.11E+03		
B10-2	191-24-2	SW8270C	9/2/2009	-13	-14	1.30E-01	U	1.30E-01	3.30E-01	1.10E+02	4.11E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Benzo(g,h,i)perylene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B2 1-1.5	191-24-2	SW8270C	9/1/2009	-1	-1.5	1.21E-01	U	1.21E-01	3.30E-01	1.10E+02	4.11E+03		
B2 21-22.5	191-24-2	SW8270C	9/1/2009	-21	-22.5	1.43E-01	U	1.43E-01	3.30E-01	1.10E+02	4.11E+03		
B3 12-13	191-24-2	SW8270C	8/31/2009	-12	-13	1.15E-01	U	1.15E-01	3.30E-01	1.10E+02	4.11E+03		
B3 2-3	191-24-2	SW8270C	8/31/2009	-2	-3	1.35E-01	U	1.34E-01	3.30E-01	1.10E+02	4.11E+03		
B4 14-14.5	191-24-2	SW8270C	9/1/2009	-14	-14.5	1.29E-01	U	1.29E-01	3.30E-01	1.10E+02	4.11E+03		
B4 2-2.5	191-24-2	SW8270C	9/1/2009	-2	-2.5	1.39E-01	U	1.39E-01	3.30E-01	1.10E+02	4.11E+03		
B5-1	191-24-2	SW8270C	9/2/2009	-1	-1.5	1.37E-01	U	1.37E-01	3.30E-01	1.10E+02	4.11E+03		
B5-2	191-24-2	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	1.10E+02	4.11E+03		
B6-1	191-24-2	SW8270C	9/2/2009	-0.5	-1	1.27E-01	U	1.27E-01	3.30E-01	1.10E+02	4.11E+03		
B6-2	191-24-2	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	1.10E+02	4.11E+03		
B7 0-1'	191-24-2	SW8270C	11/11/2009	0	-1	1.22E-01	U	1.22E-01	3.30E-01	1.10E+02	4.11E+03		
B7 14-15'	191-24-2	SW8270C	11/11/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	1.10E+02	4.11E+03		
B8-1	191-24-2	SW8270C	9/2/2009	-1	-1.5	1.29E-01	U	1.29E-01	3.30E-01	1.10E+02	4.11E+03		
B8-2	191-24-2	SW8270C	9/2/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	1.10E+02	4.11E+03		
B9 0-1'	191-24-2	SW8270C	11/11/2009	0	-1	1.29E-01	U	1.29E-01	3.30E-01	1.10E+02	4.11E+03		
B9 14-15'	191-24-2	SW8270C	11/11/2009	-14	-15	1.25E-01	U	1.25E-01	3.30E-01	1.10E+02	4.11E+03		

Benzo(k)fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	207-08-9	SW8270C	8/31/2009	0	-1	1.53E-02	U	1.53E-02	3.33E-02	1.17E-01	6.26E+00		
B1 0-1	207-08-9	SW8270C	8/31/2009	0	-1	4.16E-02	U	4.16E-02	3.30E-01	1.17E-01	6.26E+00		
B1 0-1'	207-08-9	SW8270C	11/11/2009	0	-1	1.59E-02	U	1.59E-02	3.00E-02	1.17E-01	6.26E+00		
B1 0-1'	207-08-9	SW8270C	11/11/2009	0	-1	4.30E-02	U	4.30E-02	3.30E-01	1.17E-01	6.26E+00		
B1 14-15'	207-08-9	SW8270C	11/11/2009	-14	-15	1.43E-02	U	1.43E-02	3.00E-02	1.17E-01	6.26E+00		
B1 14-15'	207-08-9	SW8270C	11/11/2009	-14	-15	3.87E-02	U	3.87E-02	3.30E-01	1.17E-01	6.26E+00		
B10-1	207-08-9	SW8270C	9/2/2009	-2	-3	4.97E-02	U	4.97E-02	3.30E-01	1.17E-01	6.26E+00		
B10-1	207-08-9	SW8270C	9/2/2009	-2	-3	1.83E-02	U	1.83E-02	3.33E-02	1.17E-01	6.26E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Benzo(k)fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-2	207-08-9	SW8270C	9/2/2009	-13	-14	1.56E-02	U	1.56E-02	3.33E-02	1.17E-01	6.26E+00		
B10-2	207-08-9	SW8270C	9/2/2009	-13	-14	4.23E-02	U	4.23E-02	3.30E-01	1.17E-01	6.26E+00		
B2 1-1.5	207-08-9	SW8270C	9/1/2009	-1	-1.5	1.45E-02	U	1.45E-02	3.33E-02	1.17E-01	6.26E+00		
B2 1-1.5	207-08-9	SW8270C	9/1/2009	-1	-1.5	3.93E-02	U	3.93E-02	3.30E-01	1.17E-01	6.26E+00		
B2 21-22.5	207-08-9	SW8270C	9/1/2009	-21	-22.5	4.66E-02	U	4.66E-02	3.30E-01	1.17E-01	6.26E+00		
B2 21-22.5	207-08-9	SW8270C	9/1/2009	-21	-22.5	1.72E-02	U	1.72E-02	3.33E-02	1.17E-01	6.26E+00		
B3 12-13	207-08-9	SW8270C	8/31/2009	-12	-13	3.74E-02	U	3.74E-02	3.30E-01	1.17E-01	6.26E+00		
B3 12-13	207-08-9	SW8270C	8/31/2009	-12	-13	1.38E-02	U	1.38E-02	3.33E-02	1.17E-01	6.26E+00		
B3 2-3	207-08-9	SW8270C	8/31/2009	-2	-3	4.38E-02	U	4.38E-02	3.30E-01	1.17E-01	6.26E+00		
B3 2-3	207-08-9	SW8270C	8/31/2009	-2	-3	1.61E-02	U	1.61E-02	3.33E-02	1.17E-01	6.26E+00		
B4 14-14.5	207-08-9	SW8270C	9/1/2009	-14	-14.5	1.55E-02	U	1.55E-02	3.33E-02	1.17E-01	6.26E+00		
B4 14-14.5	207-08-9	SW8270C	9/1/2009	-14	-14.5	4.20E-02	U	4.20E-02	3.30E-01	1.17E-01	6.26E+00		
B4 2-2.5	207-08-9	SW8270C	9/1/2009	-2	-2.5	1.67E-02	U	1.67E-02	3.33E-02	1.17E-01	6.26E+00		
B4 2-2.5	207-08-9	SW8270C	9/1/2009	-2	-2.5	4.54E-02	U	4.54E-02	3.30E-01	1.17E-01	6.26E+00		
B5-1	207-08-9	SW8270C	9/2/2009	-1	-1.5	1.65E-02	U	1.65E-02	3.33E-02	1.17E-01	6.26E+00		
B5-1	207-08-9	SW8270C	9/2/2009	-1	-1.5	4.46E-02	U	4.46E-02	3.30E-01	1.17E-01	6.26E+00		
B5-2	207-08-9	SW8270C	9/2/2009	-14.5	-15	1.57E-02	U	1.57E-02	3.33E-02	1.17E-01	6.26E+00		
B5-2	207-08-9	SW8270C	9/2/2009	-14.5	-15	4.25E-02	U	4.25E-02	3.30E-01	1.17E-01	6.26E+00		
B6-1	207-08-9	SW8270C	9/2/2009	-0.5	-1	4.12E-02	U	4.12E-02	3.30E-01	1.17E-01	6.26E+00		
B6-1	207-08-9	SW8270C	9/2/2009	-0.5	-1	1.52E-02	U	1.52E-02	3.33E-02	1.17E-01	6.26E+00		
B6-2	207-08-9	SW8270C	9/2/2009	-14.5	-15	1.57E-02	U	1.57E-02	3.33E-02	1.17E-01	6.26E+00		
B6-2	207-08-9	SW8270C	9/2/2009	-14.5	-15	4.25E-02	U	4.25E-02	3.30E-01	1.17E-01	6.26E+00		
B7 0-1'	207-08-9	SW8270C	11/11/2009	0	-1	3.97E-02	U	3.97E-02	3.30E-01	1.17E-01	6.26E+00		
B7 0-1'	207-08-9	SW8270C	11/11/2009	0	-1	1.47E-02	U	1.47E-02	3.00E-02	1.17E-01	6.26E+00		
B7 14-15'	207-08-9	SW8270C	11/11/2009	-14	-15	1.51E-02	U	1.51E-02	3.00E-02	1.17E-01	6.26E+00		
B7 14-15'	207-08-9	SW8270C	11/11/2009	-14	-15	4.10E-02	U	4.10E-02	3.30E-01	1.17E-01	6.26E+00		
B8-1	207-08-9	SW8270C	9/2/2009	-1	-1.5	1.55E-02	U	1.55E-02	3.33E-02	1.17E-01	6.26E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Benzo(k)fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-1	207-08-9	SW8270C	9/2/2009	-1	-1.5	4.21E-02	U	4.21E-02	3.30E-01	1.17E-01	6.26E+00		
B8-2	207-08-9	SW8270C	9/2/2009	-14	-15	1.51E-02	U	1.51E-02	3.33E-02	1.17E-01	6.26E+00		
B8-2	207-08-9	SW8270C	9/2/2009	-14	-15	4.09E-02	U	4.09E-02	3.30E-01	1.17E-01	6.26E+00		
B9 0-1'	207-08-9	SW8270C	11/11/2009	0	-1	1.55E-02	U	1.55E-02	3.00E-02	1.17E-01	6.26E+00		
B9 0-1'	207-08-9	SW8270C	11/11/2009	0	-1	4.20E-02	U	4.20E-02	3.30E-01	1.17E-01	6.26E+00		
B9 14-15'	207-08-9	SW8270C	11/11/2009	-14	-15	4.08E-02	U	4.08E-02	3.30E-01	1.17E-01	6.26E+00		
B9 14-15'	207-08-9	SW8270C	11/11/2009	-14	-15	1.50E-02	U	1.50E-02	3.00E-02	1.17E-01	6.26E+00		

Benzoic acid

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	65-85-0	SW8270C	8/31/2009	0	-1	3.30E-01	U	3.30E-01	6.60E-01	1.46E+04	6.20E+05		
B1 0-1'	65-85-0	SW8270C	11/11/2009	0	-1	3.41E-01	U	3.41E-01	6.60E-01	1.46E+04	6.20E+05		
B1 14-15'	65-85-0	SW8270C	11/11/2009	-14	-15	3.07E-01	U	3.07E-01	6.60E-01	1.46E+04	6.20E+05		
B10-1	65-85-0	SW8270C	9/2/2009	-2	-3	3.94E-01	U	3.94E-01	6.60E-01	1.46E+04	6.20E+05		
B10-2	65-85-0	SW8270C	9/2/2009	-13	-14	3.35E-01	U	3.35E-01	6.60E-01	1.46E+04	6.20E+05		
B2 1-1.5	65-85-0	SW8270C	9/1/2009	-1	-1.5	3.12E-01	U	3.12E-01	6.60E-01	1.46E+04	6.20E+05		
B2 21-22.5	65-85-0	SW8270C	9/1/2009	-21	-22.5	3.69E-01	U	3.69E-01	6.60E-01	1.46E+04	6.20E+05		
B3 12-13	65-85-0	SW8270C	8/31/2009	-12	-13	2.97E-01	U	2.97E-01	6.60E-01	1.46E+04	6.20E+05		
B3 2-3	65-85-0	SW8270C	8/31/2009	-2	-3	3.47E-01	U	3.47E-01	6.60E-01	1.46E+04	6.20E+05		
B4 14-14.5	65-85-0	SW8270C	9/1/2009	-14	-14.5	3.33E-01	U	3.33E-01	6.60E-01	1.46E+04	6.20E+05		
B4 2-2.5	65-85-0	SW8270C	9/1/2009	-2	-2.5	3.60E-01	U	3.60E-01	6.60E-01	1.46E+04	6.20E+05		
B5-1	65-85-0	SW8270C	9/2/2009	-1	-1.5	3.54E-01	U	3.54E-01	6.60E-01	1.46E+04	6.20E+05		
B5-2	65-85-0	SW8270C	9/2/2009	-14.5	-15	3.37E-01	U	3.37E-01	6.60E-01	1.46E+04	6.20E+05		
B6-1	65-85-0	SW8270C	9/2/2009	-0.5	-1	3.27E-01	U	3.27E-01	6.60E-01	1.46E+04	6.20E+05		
B6-2	65-85-0	SW8270C	9/2/2009	-14.5	-15	3.37E-01	U	3.37E-01	6.60E-01	1.46E+04	6.20E+05		
B7 0-1'	65-85-0	SW8270C	11/11/2009	0	-1	3.15E-01	U	3.15E-01	6.60E-01	1.46E+04	6.20E+05		
B7 14-15'	65-85-0	SW8270C	11/11/2009	-14	-15	3.25E-01	U	3.25E-01	6.60E-01	1.46E+04	6.20E+05		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Benzoic acid

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-1	65-85-0	SW8270C	9/2/2009	-1	-1.5	3.34E-01	U	3.34E-01	6.60E-01	1.46E+04	6.20E+05		
B8-2	65-85-0	SW8270C	9/2/2009	-14	-15	3.25E-01	U	3.25E-01	6.60E-01	1.46E+04	6.20E+05		
B9 0-1'	65-85-0	SW8270C	11/11/2009	0	-1	3.33E-01	U	3.33E-01	6.60E-01	1.46E+04	6.20E+05		
B9 14-15'	65-85-0	SW8270C	11/11/2009	-14	-15	3.24E-01	U	3.23E-01	6.60E-01	1.46E+04	6.20E+05		

Benzyl alcohol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	100-51-6	SW8270C	8/31/2009	0	-1	1.85E-01	U	1.85E-01	6.60E-01	1.10E+03	4.65E+04		
B1 0-1'	100-51-6	SW8270C	11/11/2009	0	-1	1.91E-01	U	1.91E-01	6.60E-01	1.10E+03	4.65E+04		
B1 14-15'	100-51-6	SW8270C	11/11/2009	-14	-15	1.72E-01	U	1.72E-01	6.60E-01	1.10E+03	4.65E+04		
B10-1	100-51-6	SW8270C	9/2/2009	-2	-3	2.21E-01	U	2.21E-01	6.60E-01	1.10E+03	4.65E+04		
B10-2	100-51-6	SW8270C	9/2/2009	-13	-14	1.88E-01	U	1.88E-01	6.60E-01	1.10E+03	4.65E+04		
B2 1-1.5	100-51-6	SW8270C	9/1/2009	-1	-1.5	1.75E-01	U	1.75E-01	6.60E-01	1.10E+03	4.65E+04		
B2 21-22.5	100-51-6	SW8270C	9/1/2009	-21	-22.5	2.07E-01	U	2.07E-01	6.60E-01	1.10E+03	4.65E+04		
B3 12-13	100-51-6	SW8270C	8/31/2009	-12	-13	1.66E-01	U	1.66E-01	6.60E-01	1.10E+03	4.65E+04		
B3 2-3	100-51-6	SW8270C	8/31/2009	-2	-3	1.94E-01	U	1.94E-01	6.60E-01	1.10E+03	4.65E+04		
B4 14-14.5	100-51-6	SW8270C	9/1/2009	-14	-14.5	1.87E-01	U	1.87E-01	6.60E-01	1.10E+03	4.65E+04		
B4 2-2.5	100-51-6	SW8270C	9/1/2009	-2	-2.5	2.02E-01	U	2.02E-01	6.60E-01	1.10E+03	4.65E+04		
B5-1	100-51-6	SW8270C	9/2/2009	-1	-1.5	1.98E-01	U	1.98E-01	6.60E-01	1.10E+03	4.65E+04		
B5-2	100-51-6	SW8270C	9/2/2009	-14.5	-15	1.89E-01	U	1.89E-01	6.60E-01	1.10E+03	4.65E+04		
B6-1	100-51-6	SW8270C	9/2/2009	-0.5	-1	1.83E-01	U	1.83E-01	6.60E-01	1.10E+03	4.65E+04		
B6-2	100-51-6	SW8270C	9/2/2009	-14.5	-15	1.89E-01	U	1.89E-01	6.60E-01	1.10E+03	4.65E+04		
B7 0-1'	100-51-6	SW8270C	11/11/2009	0	-1	1.76E-01	U	1.77E-01	6.60E-01	1.10E+03	4.65E+04		
B7 14-15'	100-51-6	SW8270C	11/11/2009	-14	-15	1.82E-01	U	1.82E-01	6.60E-01	1.10E+03	4.65E+04		
B8-1	100-51-6	SW8270C	9/2/2009	-1	-1.5	1.87E-01	U	1.87E-01	6.60E-01	1.10E+03	4.65E+04		
B8-2	100-51-6	SW8270C	9/2/2009	-14	-15	1.82E-01	U	1.82E-01	6.60E-01	1.10E+03	4.65E+04		
B9 0-1'	100-51-6	SW8270C	11/11/2009	0	-1	1.86E-01	U	1.86E-01	6.60E-01	1.10E+03	4.65E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Benzyl alcohol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B9 14-15'	100-51-6	SW8270C	11/11/2009	-14	-15	1.81E-01	U	1.81E-01	6.60E-01	1.10E+03	4.65E+04		

Beryllium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-41-7	SW6010B	8/31/2009	0	-1	7.21E-01		5.12E-02	5.00E-01	1.85E+00	4.56E+01	4.01E-01	7.80E-01
B1 0-1'	7440-41-7	SW6010B	11/11/2009	0	-1	7.37E-01		5.29E-02	2.00E-01	1.85E+00	4.56E+01	4.01E-01	7.80E-01
B1 14-15'	7440-41-7	SW6010B	11/11/2009	-14	-15	3.74E-01		4.76E-02	2.00E-01	1.85E+00	4.56E+01		
B10-1	7440-41-7	SW6010B	9/2/2009	-2	-3	7.35E-01		6.10E-02	5.00E-01	1.85E+00	4.56E+01	5.27E-01	8.53E-01
B10-2	7440-41-7	SW6010B	9/2/2009	-13	-14	4.60E-01		5.19E-02	5.00E-01	1.85E+00	4.56E+01		
B2 1-1.5	7440-41-7	SW6010B	9/1/2009	-1	-1.5	5.71E-01		4.84E-02	5.00E-01	1.85E+00	4.56E+01	5.27E-01	8.53E-01
B2 21-22.5	7440-41-7	SW6010B	9/1/2009	-21	-22.5	7.67E-01		5.72E-02	5.00E-01	1.85E+00	4.56E+01		
B3 12-13	7440-41-7	SW6010B	8/31/2009	-12	-13	6.27E-01		4.60E-02	5.00E-01	1.85E+00	4.56E+01		
B3 2-3	7440-41-7	SW6010B	8/31/2009	-2	-3	6.36E-01		5.38E-02	5.00E-01	1.85E+00	4.56E+01	5.27E-01	8.53E-01
B4 14-14.5	7440-41-7	SW6010B	9/1/2009	-14	-14.5	9.27E-01		5.16E-02	5.00E-01	1.85E+00	4.56E+01		
B4 2-2.5	7440-41-7	SW6010B	9/1/2009	-2	-2.5	7.60E-01		5.58E-02	5.00E-01	1.85E+00	4.56E+01	5.27E-01	8.53E-01
B5-1	7440-41-7	SW6010B	9/2/2009	-1	-1.5	7.61E-01		5.49E-02	5.00E-01	1.85E+00	4.56E+01	5.27E-01	8.53E-01
B5-2	7440-41-7	SW6010B	9/2/2009	-14.5	-15	1.24E+00		5.23E-02	5.00E-01	1.85E+00	4.56E+01		
B6-1	7440-41-7	SW6010B	9/2/2009	-0.5	-1	7.03E-01		5.07E-02	5.00E-01	1.85E+00	4.56E+01	4.01E-01	7.80E-01
B6-2	7440-41-7	SW6010B	9/2/2009	-14.5	-15	1.92E+00		5.23E-02	5.00E-01	1.85E+00	4.56E+01		
B7 0-1'	7440-41-7	SW6010B	11/11/2009	0	-1	5.42E-01		4.88E-02	2.00E-01	1.85E+00	4.56E+01	4.01E-01	7.80E-01
B7 14-15'	7440-41-7	SW6010B	11/11/2009	-14	-15	5.03E-02	U	5.03E-02	2.00E-01	1.85E+00	4.56E+01		
B8-1	7440-41-7	SW6010B	9/2/2009	-1	-1.5	4.23E-01		5.17E-02	5.00E-01	1.85E+00	4.56E+01	5.27E-01	8.53E-01
B8-2	7440-41-7	SW6010B	9/2/2009	-14	-15	7.54E-01		5.03E-02	5.00E-01	1.85E+00	4.56E+01		
B9 0-1'	7440-41-7	SW6010B	11/11/2009	0	-1	6.73E-01		5.16E-02	2.00E-01	1.85E+00	4.56E+01	4.01E-01	7.80E-01
B9 14-15'	7440-41-7	SW6010B	11/11/2009	-14	-15	7.78E-01		5.01E-02	2.00E-01	1.85E+00	4.56E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Bis(2-chloroethoxy)methane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	111-91-1	SW8270C	8/31/2009	0	-1	1.06E-02	U	1.06E-02	3.33E-02	7.74E-03	2.89E-01		
B1 0-1	111-91-1	SW8270C	8/31/2009	0	-1	1.61E-01	U	1.60E-01	3.30E-01	7.74E-03	2.89E-01		
B1 0-1'	111-91-1	SW8270C	11/11/2009	0	-1	1.09E-02	U	1.09E-02	3.30E-02	7.74E-03	2.89E-01		
B1 14-15'	111-91-1	SW8270C	11/11/2009	-14	-15	9.80E-03	U	9.85E-03	3.30E-02	7.74E-03	2.89E-01		
B10-1	111-91-1	SW8270C	9/2/2009	-2	-3	1.26E-02	U	1.26E-02	3.33E-02	7.74E-03	2.89E-01		
B10-1	111-91-1	SW8270C	9/2/2009	-2	-3	1.91E-01	U	1.91E-01	3.30E-01	7.74E-03	2.89E-01		
B10-2	111-91-1	SW8270C	9/2/2009	-13	-14	1.07E-02	U	1.07E-02	3.33E-02	7.74E-03	2.89E-01		
B10-2	111-91-1	SW8270C	9/2/2009	-13	-14	1.63E-01	U	1.63E-01	3.30E-01	7.74E-03	2.89E-01		
B2 1-1.5	111-91-1	SW8270C	9/1/2009	-1	-1.5	9.98E-03	U	9.98E-03	3.33E-02	7.74E-03	2.89E-01		
B2 1-1.5	111-91-1	SW8270C	9/1/2009	-1	-1.5	1.52E-01	U	1.52E-01	3.30E-01	7.74E-03	2.89E-01		
B2 21-22.5	111-91-1	SW8270C	9/1/2009	-21	-22.5	1.79E-01	U	1.79E-01	3.30E-01	7.74E-03	2.89E-01		
B2 21-22.5	111-91-1	SW8270C	9/1/2009	-21	-22.5	1.18E-02	U	1.18E-02	3.33E-02	7.74E-03	2.89E-01		
B3 12-13	111-91-1	SW8270C	8/31/2009	-12	-13	1.44E-01	U	1.44E-01	3.30E-01	7.74E-03	2.89E-01		
B3 12-13	111-91-1	SW8270C	8/31/2009	-12	-13	9.49E-03	U	9.49E-03	3.33E-02	7.74E-03	2.89E-01		
B3 2-3	111-91-1	SW8270C	8/31/2009	-2	-3	1.11E-02	U	1.11E-02	3.33E-02	7.74E-03	2.89E-01		
B3 2-3	111-91-1	SW8270C	8/31/2009	-2	-3	1.69E-01	U	1.69E-01	3.30E-01	7.74E-03	2.89E-01		
B4 14-14.5	111-91-1	SW8270C	9/1/2009	-14	-14.5	1.62E-01	U	1.62E-01	3.30E-01	7.74E-03	2.89E-01		
B4 14-14.5	111-91-1	SW8270C	9/1/2009	-14	-14.5	1.07E-02	U	1.07E-02	3.33E-02	7.74E-03	2.89E-01		
B4 2-2.5	111-91-1	SW8270C	9/1/2009	-2	-2.5	1.75E-01	U	1.75E-01	3.30E-01	7.74E-03	2.89E-01		
B4 2-2.5	111-91-1	SW8270C	9/1/2009	-2	-2.5	1.15E-02	U	1.15E-02	3.33E-02	7.74E-03	2.89E-01		
B5-1	111-91-1	SW8270C	9/2/2009	-1	-1.5	1.13E-02	U	1.13E-02	3.33E-02	7.74E-03	2.89E-01		
B5-1	111-91-1	SW8270C	9/2/2009	-1	-1.5	1.72E-01	U	1.72E-01	3.30E-01	7.74E-03	2.89E-01		
B5-2	111-91-1	SW8270C	9/2/2009	-14.5	-15	1.64E-01	U	1.64E-01	3.30E-01	7.74E-03	2.89E-01		
B5-2	111-91-1	SW8270C	9/2/2009	-14.5	-15	1.08E-02	U	1.08E-02	3.33E-02	7.74E-03	2.89E-01		
B6-1	111-91-1	SW8270C	9/2/2009	-0.5	-1	1.05E-02	U	1.05E-02	3.33E-02	7.74E-03	2.89E-01		
B6-1	111-91-1	SW8270C	9/2/2009	-0.5	-1	1.59E-01	U	1.59E-01	3.30E-01	7.74E-03	2.89E-01		
B6-2	111-91-1	SW8270C	9/2/2009	-14.5	-15	1.08E-02	U	1.08E-02	3.33E-02	7.74E-03	2.89E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Bis(2-chloroethoxy)methane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B6-2	111-91-1	SW8270C	9/2/2009	-14.5	-15	1.64E-01	U	1.64E-01	3.30E-01	7.74E-03	2.89E-01		
B7 0-1'	111-91-1	SW8270C	11/11/2009	0	-1	1.01E-02	U	1.01E-02	3.30E-02	7.74E-03	2.89E-01		
B7 14-15'	111-91-1	SW8270C	11/11/2009	-14	-15	1.04E-02	U	1.04E-02	3.30E-02	7.74E-03	2.89E-01		
B8-1	111-91-1	SW8270C	9/2/2009	-1	-1.5	1.62E-01	U	1.62E-01	3.30E-01	7.74E-03	2.89E-01		
B8-1	111-91-1	SW8270C	9/2/2009	-1	-1.5	1.07E-02	U	1.07E-02	3.33E-02	7.74E-03	2.89E-01		
B8-2	111-91-1	SW8270C	9/2/2009	-14	-15	1.04E-02	U	1.04E-02	3.33E-02	7.74E-03	2.89E-01		
B8-2	111-91-1	SW8270C	9/2/2009	-14	-15	1.58E-01	U	1.58E-01	3.30E-01	7.74E-03	2.89E-01		
B9 0-1'	111-91-1	SW8270C	11/11/2009	0	-1	1.07E-02	U	1.07E-02	3.30E-02	7.74E-03	2.89E-01		
B9 14-15'	111-91-1	SW8270C	11/11/2009	-14	-15	1.04E-02	U	1.04E-02	3.30E-02	7.74E-03	2.89E-01		

Bis(2-chloroethyl)ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	111-44-4	SW8270C	8/31/2009	0	-1	1.67E-01	U	1.67E-01	3.30E-01	2.15E-03	1.49E-01		
B1 0-1'	111-44-4	SW8270C	11/11/2009	0	-1	1.50E-02	U	1.50E-03	3.30E-02	2.15E-03	1.49E-01		
B1 0-1 R	111-44-4	SW8270C	8/31/2009	0	-1	1.46E-02	U	1.46E-02	1.00E-01	2.15E-03	1.49E-01		
B1 0-1' R	111-44-4	SW8270C	11/11/2009	0	-1	1.50E-02	U	1.50E-03	3.30E-02	2.15E-03	1.49E-01		
B1 14-15'	111-44-4	SW8270C	11/11/2009	-14	-15	1.38E-02	U	1.38E-02	3.30E-02	2.15E-03	1.49E-01		
B1 14-15' R	111-44-4	SW8270C	11/11/2009	-14	-15	1.38E-02	U	1.38E-02	3.30E-02	2.15E-03	1.49E-01		
B10-1	111-44-4	SW8270C	9/2/2009	-2	-3	2.00E-01	U	2.00E-01	3.30E-01	2.15E-03	1.49E-01		
B10-1 R	111-44-4	SW8270C	9/2/2009	-2	-3	1.64E-02	U	1.64E-02	1.00E-01	2.15E-03	1.49E-01		
B10-2	111-44-4	SW8270C	9/2/2009	-13	-14	1.70E-01	U	1.70E-01	3.30E-01	2.15E-03	1.49E-01		
B10-2 R	111-44-4	SW8270C	9/2/2009	-13	-14	1.47E-02	U	1.47E-02	1.00E-01	2.15E-03	1.49E-01		
B2 1-1.5	111-44-4	SW8270C	9/1/2009	-1	-1.5	1.58E-01	U	1.58E-01	3.30E-01	2.15E-03	1.49E-01		
B2 1-1.5 R	111-44-4	SW8270C	9/1/2009	-1	-1.5	1.40E-02	U	1.40E-02	1.00E-01	2.15E-03	1.49E-01		
B2 21-22.5	111-44-4	SW8270C	9/1/2009	-21	-22.5	1.87E-01	U	1.87E-01	3.30E-01	2.15E-03	1.49E-01		
B2 21-22.5	111-44-4	SW8270C	9/1/2009	-21	-22.5	1.57E-02	U	1.57E-02	1.00E-01	2.15E-03	1.49E-01		
B3 12-13	111-44-4	SW8270C	8/31/2009	-12	-13	1.51E-01	U	1.51E-01	3.30E-01	2.15E-03	1.49E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Bis(2-chloroethyl)ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 12-13 R	111-44-4	SW8270C	8/31/2009	-12	-13	1.33E-02	U	1.33E-02	1.00E-01	2.15E-03	1.49E-01		
B3 2-3	111-44-4	SW8270C	8/31/2009	-2	-3	1.76E-01	U	1.76E-01	3.30E-01	2.15E-03	1.49E-01		
B3 2-3 R	111-44-4	SW8270C	8/31/2009	-2	-3	1.51E-02	U	1.51E-02	1.00E-01	2.15E-03	1.49E-01		
B4 14-14.5	111-44-4	SW8270C	9/1/2009	-14	-14.5	1.69E-01	U	1.69E-01	3.30E-01	2.15E-03	1.49E-01		
B4 14-14.5	111-44-4	SW8270C	9/1/2009	-14	-14.5	1.47E-02	U	1.47E-02	1.00E-01	2.15E-03	1.49E-01		
B4 2-2.5	111-44-4	SW8270C	9/1/2009	-2	-2.5	1.83E-01	U	1.83E-01	3.30E-01	2.15E-03	1.49E-01		
B4 2-2.5 R	111-44-4	SW8270C	9/1/2009	-2	-2.5	1.55E-02	U	1.55E-02	1.00E-01	2.15E-03	1.49E-01		
B5-1	111-44-4	SW8270C	9/2/2009	-1	-1.5	1.80E-01	U	1.80E-01	3.30E-01	2.15E-03	1.49E-01		
B5-1 R	111-44-4	SW8270C	9/2/2009	-1	-1.5	1.54E-02	U	1.56E-02	1.00E-01	2.15E-03	1.49E-01		
B5-2	111-44-4	SW8270C	9/2/2009	-14.5	-15	1.71E-01	U	1.71E-01	3.30E-01	2.15E-03	1.49E-01		
B5-2 R	111-44-4	SW8270C	9/2/2009	-14.5	-15	1.48E-02	U	1.48E-02	1.00E-01	2.15E-03	1.49E-01		
B6-1	111-44-4	SW8270C	9/2/2009	-0.5	-1	1.66E-01	U	1.66E-01	3.30E-01	2.15E-03	1.49E-01		
B6-1 R	111-44-4	SW8270C	9/2/2009	-0.5	-1	1.45E-02	U	1.45E-02	1.00E-01	2.15E-03	1.49E-01		
B6-2	111-44-4	SW8270C	9/2/2009	-14.5	-15	1.71E-01	U	1.71E-01	3.30E-01	2.15E-03	1.49E-01		
B6-2 R	111-44-4	SW8270C	9/2/2009	-14.5	-15	1.48E-02	U	1.48E-02	1.00E-01	2.15E-03	1.49E-01		
B7 0-1'	111-44-4	SW8270C	11/11/2009	0	-1	1.41E-02	U	1.41E-02	3.30E-02	2.15E-03	1.49E-01		
B7 0-1' R	111-44-4	SW8270C	11/11/2009	0	-1	1.41E-02	U	1.41E-02	3.30E-02	2.15E-03	1.49E-01		
B7 14-15'	111-44-4	SW8270C	11/11/2009	-14	-15	1.45E-02	U	1.45E-02	3.30E-02	2.15E-03	1.49E-01		
B7 14-15' R	111-44-4	SW8270C	11/11/2009	-14	-15	1.45E-02	U	1.45E-02	3.30E-02	2.15E-03	1.49E-01		
B8-1	111-44-4	SW8270C	9/2/2009	-1	-1.5	1.69E-01	U	1.69E-01	3.30E-01	2.15E-03	1.49E-01		
B8-1 R	111-44-4	SW8270C	9/2/2009	-1	-1.5	1.47E-02	U	1.47E-02	1.00E-01	2.15E-03	1.49E-01		
B8-2	111-44-4	SW8270C	9/2/2009	-14	-15	1.65E-01	U	1.65E-01	3.30E-01	2.15E-03	1.49E-01		
B8-2 R	111-44-4	SW8270C	9/2/2009	-14	-15	1.45E-02	U	1.45E-02	1.00E-01	2.15E-03	1.49E-01		
B9 0-1'	111-44-4	SW8270C	11/11/2009	0	-1	1.47E-02	U	1.47E-02	3.30E-02	2.15E-03	1.49E-01		
B9 0-1' R	111-44-4	SW8270C	11/11/2009	0	-1	1.47E-02	U	1.47E-02	3.30E-02	2.15E-03	1.49E-01		
B9 14-15'	111-44-4	SW8270C	11/11/2009	-14	-15	1.43E-02	U	1.43E-02	3.30E-02	2.15E-03	1.49E-01		
B9 14-15' R	111-44-4	SW8270C	11/11/2009	-14	-15	1.43E-02	U	1.43E-02	3.30E-02	2.15E-03	1.49E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Bis(2-chloroisopropyl)ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	108-60-1	SW8270C	8/31/2009	0	-1	1.71E-01	U	1.71E-01	3.30E-01	1.22E+00	4.75E+01		
B1 0-1'	108-60-1	SW8270C	11/11/2009	0	-1	1.77E-01	U	1.77E-01	3.30E-01	1.22E+00	4.75E+01		
B1 14-15'	108-60-1	SW8270C	11/11/2009	-14	-15	1.59E-01	U	1.59E-01	3.30E-01	1.22E+00	4.75E+01		
B10-1	108-60-1	SW8270C	9/2/2009	-2	-3	2.04E-01	U	2.04E-01	3.30E-01	1.22E+00	4.75E+01		
B10-2	108-60-1	SW8270C	9/2/2009	-13	-14	1.74E-01	U	1.74E-01	3.30E-01	1.22E+00	4.75E+01		
B2 1-1.5	108-60-1	SW8270C	9/1/2009	-1	-1.5	1.62E-01	U	1.62E-01	3.30E-01	1.22E+00	4.75E+01		
B2 21-22.5	108-60-1	SW8270C	9/1/2009	-21	-22.5	1.91E-01	U	1.91E-01	3.30E-01	1.22E+00	4.75E+01		
B3 12-13	108-60-1	SW8270C	8/31/2009	-12	-13	1.54E-01	U	1.54E-01	3.30E-01	1.22E+00	4.75E+01		
B3 2-3	108-60-1	SW8270C	8/31/2009	-2	-3	1.80E-01	U	1.80E-01	3.30E-01	1.22E+00	4.75E+01		
B4 14-14.5	108-60-1	SW8270C	9/1/2009	-14	-14.5	1.72E-01	U	1.73E-01	3.30E-01	1.22E+00	4.75E+01		
B4 2-2.5	108-60-1	SW8270C	9/1/2009	-2	-2.5	1.86E-01	U	1.86E-01	3.30E-01	1.22E+00	4.75E+01		
B5-1	108-60-1	SW8270C	9/2/2009	-1	-1.5	1.83E-01	U	1.83E-01	3.30E-01	1.22E+00	4.75E+01		
B5-2	108-60-1	SW8270C	9/2/2009	-14.5	-15	1.75E-01	U	1.75E-01	3.30E-01	1.22E+00	4.75E+01		
B6-1	108-60-1	SW8270C	9/2/2009	-0.5	-1	1.69E-01	U	1.69E-01	3.30E-01	1.22E+00	4.75E+01		
B6-2	108-60-1	SW8270C	9/2/2009	-14.5	-15	1.75E-01	U	1.75E-01	3.30E-01	1.22E+00	4.75E+01		
B7 0-1'	108-60-1	SW8270C	11/11/2009	0	-1	1.63E-01	U	1.63E-01	3.30E-01	1.22E+00	4.75E+01		
B7 14-15'	108-60-1	SW8270C	11/11/2009	-14	-15	1.68E-01	U	1.68E-01	3.30E-01	1.22E+00	4.75E+01		
B8-1	108-60-1	SW8270C	9/2/2009	-1	-1.5	1.73E-01	U	1.73E-01	3.30E-01	1.22E+00	4.75E+01		
B8-2	108-60-1	SW8270C	9/2/2009	-14	-15	1.68E-01	U	1.68E-01	3.30E-01	1.22E+00	4.75E+01		
B9 0-1'	108-60-1	SW8270C	11/11/2009	0	-1	1.72E-01	U	1.72E-01	3.30E-01	1.22E+00	4.75E+01		
B9 14-15'	108-60-1	SW8270C	11/11/2009	-14	-15	1.67E-01	U	1.67E-01	3.30E-01	1.22E+00	4.75E+01		

Bis(2-ethylhexyl)phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	117-81-7	SW8270C	8/31/2009	0	-1	1.57E-01	U	1.57E-01	3.30E-01	6.00E-01	1.74E+01		
B1 0-1'	117-81-7	SW8270C	11/11/2009	0	-1	1.62E-01	U	1.62E-01	3.30E-01	6.00E-01	1.74E+01		
B1 14-15'	117-81-7	SW8270C	11/11/2009	-14	-15	1.46E-01	U	1.46E-01	3.30E-01	6.00E-01	1.74E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Bis(2-ethylhexyl)phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-1	117-81-7	SW8270C	9/2/2009	-2	-3	1.87E-01	U	1.87E-01	3.30E-01	6.00E-01	1.74E+01		
B10-2	117-81-7	SW8270C	9/2/2009	-13	-14	1.59E-01	U	1.59E-01	3.30E-01	6.00E-01	1.74E+01		
B2 1-1.5	117-81-7	SW8270C	9/1/2009	-1	-1.5	1.48E-01	U	1.48E-01	3.30E-01	6.00E-01	1.74E+01		
B2 21-22.5	117-81-7	SW8270C	9/1/2009	-21	-22.5	1.76E-01	U	1.76E-01	3.30E-01	6.00E-01	1.74E+01		
B3 12-13	117-81-7	SW8270C	8/31/2009	-12	-13	1.41E-01	U	1.41E-01	3.30E-01	6.00E-01	1.74E+01		
B3 2-3	117-81-7	SW8270C	8/31/2009	-2	-3	1.65E-01	U	1.65E-01	3.30E-01	6.00E-01	1.74E+01		
B4 14-14.5	117-81-7	SW8270C	9/1/2009	-14	-14.5	1.59E-01	U	1.58E-01	3.30E-01	6.00E-01	1.74E+01		
B4 2-2.5	117-81-7	SW8270C	9/1/2009	-2	-2.5	1.71E-01	U	1.71E-01	3.30E-01	6.00E-01	1.74E+01		
B5-1	117-81-7	SW8270C	9/2/2009	-1	-1.5	1.68E-01	U	1.68E-01	3.30E-01	6.00E-01	1.74E+01		
B5-2	117-81-7	SW8270C	9/2/2009	-14.5	-15	1.60E-01	U	1.60E-01	3.30E-01	6.00E-01	1.74E+01		
B6-1	117-81-7	SW8270C	9/2/2009	-0.5	-1	1.56E-01	U	1.56E-01	3.30E-01	6.00E-01	1.74E+01		
B6-2	117-81-7	SW8270C	9/2/2009	-14.5	-15	1.60E-01	U	1.60E-01	3.30E-01	6.00E-01	1.74E+01		
B7 0-1'	117-81-7	SW8270C	11/11/2009	0	-1	1.50E-01	U	1.50E-01	3.30E-01	6.00E-01	1.74E+01		
B7 14-15'	117-81-7	SW8270C	11/11/2009	-14	-15	1.55E-01	U	1.54E-01	3.30E-01	6.00E-01	1.74E+01		
B8-1	117-81-7	SW8270C	9/2/2009	-1	-1.5	1.59E-01	U	1.59E-01	3.30E-01	6.00E-01	1.74E+01		
B8-2	117-81-7	SW8270C	9/2/2009	-14	-15	1.54E-01	U	1.54E-01	3.30E-01	6.00E-01	1.74E+01		
B9 0-1'	117-81-7	SW8270C	11/11/2009	0	-1	1.58E-01	U	1.58E-01	3.30E-01	6.00E-01	1.74E+01		
B9 14-15'	117-81-7	SW8270C	11/11/2009	-14	-15	1.54E-01	U	1.54E-01	3.30E-01	6.00E-01	1.74E+01		

Bromobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	108-86-1	SW8260B	8/31/2009	0	-1	1.24E-03	U	1.24E-03	5.00E-03	7.30E+01	1.12E+02		
B1 0-1'	108-86-1	SW8260B	11/11/2009	0	-1	1.86E-03	U	1.86E-03	5.00E-03	7.30E+01	1.12E+02		
B1 14-15'	108-86-1	SW8260B	11/11/2009	-14	-15	1.36E-03	U	1.36E-03	5.00E-03	7.30E+01	1.12E+02		
B10-1	108-86-1	SW8260B	9/2/2009	-2	-3	1.48E-03	U	1.48E-03	5.00E-03	7.30E+01	1.12E+02		
B10-2	108-86-1	SW8260B	9/2/2009	-13	-14	1.26E-03	U	1.26E-03	5.00E-03	7.30E+01	1.12E+02		
B2 1-1.5	108-86-1	SW8260B	9/1/2009	-1	-1.5	1.18E-03	U	1.18E-03	5.00E-03	7.30E+01	1.12E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Bromobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B2 21-22.5	108-86-1	SW8260B	9/1/2009	-21	-22.5	1.39E-03	U	1.39E-03	5.00E-03	7.30E+01	1.12E+02		
B3 12-13	108-86-1	SW8260B	8/31/2009	-12	-13	1.12E-03	U	1.12E-03	5.00E-03	7.30E+01	1.12E+02		
B3 2-3	108-86-1	SW8260B	8/31/2009	-2	-3	1.31E-03	U	1.31E-03	5.00E-03	7.30E+01	1.12E+02		
B4 14.5-15	108-86-1	SW8260B	9/1/2009	-14.5	-15	1.27E-03	U	1.27E-03	5.00E-03	7.30E+01	1.12E+02		
B4 2-2.5	108-86-1	SW8260B	9/1/2009	-2	-2.5	1.36E-03	U	1.36E-03	5.00E-03	7.30E+01	1.12E+02		
B5-1	108-86-1	SW8260B	9/2/2009	-1	-1.5	1.33E-03	U	1.33E-03	5.00E-03	7.30E+01	1.12E+02		
B5-2	108-86-1	SW8260B	9/2/2009	-14.5	-15	1.27E-03	U	1.27E-03	5.00E-03	7.30E+01	1.12E+02		
B6-1	108-86-1	SW8260B	9/2/2009	-0.5	-1	1.23E-03	U	1.23E-03	5.00E-03	7.30E+01	1.12E+02		
B6-2	108-86-1	SW8260B	9/2/2009	-14.5	-15	1.27E-03	U	1.27E-03	5.00E-03	7.30E+01	1.12E+02		
B7 0-1'	108-86-1	SW8260B	11/11/2009	0	-1	1.47E-03	U	1.47E-03	5.00E-03	7.30E+01	1.12E+02		
B7 14-15'	108-86-1	SW8260B	11/11/2009	-14	-15	1.60E-03	U	1.60E-03	5.00E-03	7.30E+01	1.12E+02		
B8-1	108-86-1	SW8260B	9/2/2009	-1	-1.5	1.26E-03	U	1.26E-03	5.00E-03	7.30E+01	1.12E+02		
B8-2	108-86-1	SW8260B	9/2/2009	-14	-15	1.22E-03	U	1.22E-03	5.00E-03	7.30E+01	1.12E+02		
B8-3	108-86-1	SW8260B	9/2/2009	-8	-8.5	1.33E-03	U	1.33E-03	5.00E-03	7.30E+01	1.12E+02		
B9 0-1'	108-86-1	SW8260B	11/11/2009	0	-1	1.72E-03	U	1.72E-03	5.00E-03	7.30E+01	1.12E+02		
B9 14-15'	108-86-1	SW8260B	11/11/2009	-14	-15	1.58E-03	U	1.58E-03	5.00E-03	7.30E+01	1.12E+02		

Bromochloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	74-97-5	SW8260B	8/31/2009	0	-1	1.13E-03	U	1.13E-03	5.00E-03	1.46E+02	2.41E+02		
B1 0-1'	74-97-5	SW8260B	11/11/2009	0	-1	1.69E-03	U	1.69E-03	5.00E-03	1.46E+02	2.41E+02		
B1 14-15'	74-97-5	SW8260B	11/11/2009	-14	-15	1.23E-03	U	1.23E-03	5.00E-03	1.46E+02	2.41E+02		
B10-1	74-97-5	SW8260B	9/2/2009	-2	-3	1.35E-03	U	1.35E-03	5.00E-03	1.46E+02	2.41E+02		
B10-2	74-97-5	SW8260B	9/2/2009	-13	-14	1.15E-03	U	1.15E-03	5.00E-03	1.46E+02	2.41E+02		
B2 1-1.5	74-97-5	SW8260B	9/1/2009	-1	-1.5	1.07E-03	U	1.07E-03	5.00E-03	1.46E+02	2.41E+02		
B2 21-22.5	74-97-5	SW8260B	9/1/2009	-21	-22.5	1.26E-03	U	1.26E-03	5.00E-03	1.46E+02	2.41E+02		
B3 12-13	74-97-5	SW8260B	8/31/2009	-12	-13	1.01E-03	U	1.01E-03	5.00E-03	1.46E+02	2.41E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Bromochloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 2-3	74-97-5	SW8260B	8/31/2009	-2	-3	1.19E-03	U	1.19E-03	5.00E-03	1.46E+02	2.41E+02		
B4 14.5-15	74-97-5	SW8260B	9/1/2009	-14.5	-15	1.15E-03	U	1.15E-03	5.00E-03	1.46E+02	2.41E+02		
B4 2-2.5	74-97-5	SW8260B	9/1/2009	-2	-2.5	1.23E-03	U	1.23E-03	5.00E-03	1.46E+02	2.41E+02		
B5-1	74-97-5	SW8260B	9/2/2009	-1	-1.5	1.21E-03	U	1.21E-03	5.00E-03	1.46E+02	2.41E+02		
B5-2	74-97-5	SW8260B	9/2/2009	-14.5	-15	1.15E-03	U	1.15E-03	5.00E-03	1.46E+02	2.41E+02		
B6-1	74-97-5	SW8260B	9/2/2009	-0.5	-1	1.12E-03	U	1.12E-03	5.00E-03	1.46E+02	2.41E+02		
B6-2	74-97-5	SW8260B	9/2/2009	-14.5	-15	1.15E-03	U	1.15E-03	5.00E-03	1.46E+02	2.41E+02		
B7 0-1'	74-97-5	SW8260B	11/11/2009	0	-1	1.33E-03	U	1.33E-03	5.00E-03	1.46E+02	2.41E+02		
B7 14-15'	74-97-5	SW8260B	11/11/2009	-14	-15	1.45E-03	U	1.45E-03	5.00E-03	1.46E+02	2.41E+02		
B8-1	74-97-5	SW8260B	9/2/2009	-1	-1.5	1.14E-03	U	1.14E-03	5.00E-03	1.46E+02	2.41E+02		
B8-2	74-97-5	SW8260B	9/2/2009	-14	-15	1.11E-03	U	1.11E-03	5.00E-03	1.46E+02	2.41E+02		
B8-3	74-97-5	SW8260B	9/2/2009	-8	-8.5	1.20E-03	U	1.20E-03	5.00E-03	1.46E+02	2.41E+02		
B9 0-1'	74-97-5	SW8260B	11/11/2009	0	-1	1.57E-03	U	1.57E-03	5.00E-03	1.46E+02	2.41E+02		
B9 14-15'	74-97-5	SW8260B	11/11/2009	-14	-15	1.42E-03	U	1.42E-03	5.00E-03	1.46E+02	2.41E+02		

Bromodichloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	75-27-4	SW8260B	8/31/2009	0	-1	1.05E-03	U	1.05E-03	5.00E-03	1.37E-01	1.03E+01		
B1 0-1'	75-27-4	SW8260B	11/11/2009	0	-1	1.56E-03	U	1.56E-03	5.00E-03	1.37E-01	1.03E+01		
B1 14-15'	75-27-4	SW8260B	11/11/2009	-14	-15	1.14E-03	U	1.14E-03	5.00E-03	1.37E-01	1.03E+01		
B10-1	75-27-4	SW8260B	9/2/2009	-2	-3	1.25E-03	U	1.25E-03	5.00E-03	1.37E-01	1.03E+01		
B10-2	75-27-4	SW8260B	9/2/2009	-13	-14	1.06E-03	U	1.06E-03	5.00E-03	1.37E-01	1.03E+01		
B2 1-1.5	75-27-4	SW8260B	9/1/2009	-1	-1.5	9.88E-04	U	9.88E-04	5.00E-03	1.37E-01	1.03E+01		
B2 21-22.5	75-27-4	SW8260B	9/1/2009	-21	-22.5	1.17E-03	U	1.17E-03	5.00E-03	1.37E-01	1.03E+01		
B3 12-13	75-27-4	SW8260B	8/31/2009	-12	-13	9.40E-04	U	9.40E-04	5.00E-03	1.37E-01	1.03E+01		
B3 2-3	75-27-4	SW8260B	8/31/2009	-2	-3	1.10E-03	U	1.10E-03	5.00E-03	1.37E-01	1.03E+01		
B4 14.5-15	75-27-4	SW8260B	9/1/2009	-14.5	-15	1.07E-03	U	1.07E-03	5.00E-03	1.37E-01	1.03E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Bromodichloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 2-2.5	75-27-4	SW8260B	9/1/2009	-2	-2.5	1.14E-03	U	1.14E-03	5.00E-03	1.37E-01	1.03E+01		
B5-1	75-27-4	SW8260B	9/2/2009	-1	-1.5	1.12E-03	U	1.12E-03	5.00E-03	1.37E-01	1.03E+01		
B5-2	75-27-4	SW8260B	9/2/2009	-14.5	-15	1.07E-03	U	1.07E-03	5.00E-03	1.37E-01	1.03E+01		
B6-1	75-27-4	SW8260B	9/2/2009	-0.5	-1	1.04E-03	U	1.04E-03	5.00E-03	1.37E-01	1.03E+01		
B6-2	75-27-4	SW8260B	9/2/2009	-14.5	-15	1.07E-03	U	1.07E-03	5.00E-03	1.37E-01	1.03E+01		
B7 0-1'	75-27-4	SW8260B	11/11/2009	0	-1	1.23E-03	U	1.23E-03	5.00E-03	1.37E-01	1.03E+01		
B7 14-15'	75-27-4	SW8260B	11/11/2009	-14	-15	1.35E-03	U	1.35E-03	5.00E-03	1.37E-01	1.03E+01		
B8-1	75-27-4	SW8260B	9/2/2009	-1	-1.5	1.06E-03	U	1.06E-03	5.00E-03	1.37E-01	1.03E+01		
B8-2	75-27-4	SW8260B	9/2/2009	-14	-15	1.03E-03	U	1.03E-03	5.00E-03	1.37E-01	1.03E+01		
B8-3	75-27-4	SW8260B	9/2/2009	-8	-8.5	1.11E-03	U	1.11E-03	5.00E-03	1.37E-01	1.03E+01		
B9 0-1'	75-27-4	SW8260B	11/11/2009	0	-1	1.44E-03	U	1.44E-03	5.00E-03	1.37E-01	1.03E+01		
B9 14-15'	75-27-4	SW8260B	11/11/2009	-14	-15	1.32E-03	U	1.32E-03	5.00E-03	1.37E-01	1.03E+01		

Bromoform

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	75-25-2	SW8260B	8/31/2009	0	-1	7.64E-04	U	7.64E-04	5.00E-03	1.08E+00	3.35E+01		
B1 0-1'	75-25-2	SW8260B	11/11/2009	0	-1	1.14E-03	U	1.14E-03	5.00E-03	1.08E+00	3.35E+01		
B1 14-15'	75-25-2	SW8260B	11/11/2009	-14	-15	8.32E-04	U	8.32E-04	5.00E-03	1.08E+00	3.35E+01		
B10-1	75-25-2	SW8260B	9/2/2009	-2	-3	9.11E-04	U	9.11E-04	5.00E-03	1.08E+00	3.35E+01		
B10-2	75-25-2	SW8260B	9/2/2009	-13	-14	7.76E-04	U	7.76E-04	5.00E-03	1.08E+00	3.35E+01		
B2 1-1.5	75-25-2	SW8260B	9/1/2009	-1	-1.5	7.22E-04	U	7.22E-04	5.00E-03	1.08E+00	3.35E+01		
B2 21-22.5	75-25-2	SW8260B	9/1/2009	-21	-22.5	8.54E-04	U	8.54E-04	5.00E-03	1.08E+00	3.35E+01		
B3 12-13	75-25-2	SW8260B	8/31/2009	-12	-13	6.87E-04	U	6.87E-04	5.00E-03	1.08E+00	3.35E+01		
B3 2-3	75-25-2	SW8260B	8/31/2009	-2	-3	8.03E-04	U	8.03E-04	5.00E-03	1.08E+00	3.35E+01		
B4 14.5-15	75-25-2	SW8260B	9/1/2009	-14.5	-15	7.80E-04	U	7.80E-04	5.00E-03	1.08E+00	3.35E+01		
B4 2-2.5	75-25-2	SW8260B	9/1/2009	-2	-2.5	8.33E-04	U	8.33E-04	5.00E-03	1.08E+00	3.35E+01		
B5-1	75-25-2	SW8260B	9/2/2009	-1	-1.5	8.19E-04	U	8.19E-04	5.00E-03	1.08E+00	3.35E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Bromoform

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B5-2	75-25-2	SW8260B	9/2/2009	-14.5	-15	7.80E-04	U	7.80E-04	5.00E-03	1.08E+00	3.35E+01		
B6-1	75-25-2	SW8260B	9/2/2009	-0.5	-1	7.57E-04	U	7.57E-04	5.00E-03	1.08E+00	3.35E+01		
B6-2	75-25-2	SW8260B	9/2/2009	-14.5	-15	7.80E-04	U	7.80E-04	5.00E-03	1.08E+00	3.35E+01		
B7 0-1'	75-25-2	SW8260B	11/11/2009	0	-1	8.98E-04	U	8.98E-04	5.00E-03	1.08E+00	3.35E+01		
B7 14-15'	75-25-2	SW8260B	11/11/2009	-14	-15	9.84E-04	U	9.84E-04	5.00E-03	1.08E+00	3.35E+01		
B8-1	75-25-2	SW8260B	9/2/2009	-1	-1.5	7.72E-04	U	7.72E-04	5.00E-03	1.08E+00	3.35E+01		
B8-2	75-25-2	SW8260B	9/2/2009	-14	-15	7.51E-04	U	7.51E-04	5.00E-03	1.08E+00	3.35E+01		
B8-3	75-25-2	SW8260B	9/2/2009	-8	-8.5	8.14E-04	U	8.14E-04	5.00E-03	1.08E+00	3.35E+01		
B9 0-1'	75-25-2	SW8260B	11/11/2009	0	-1	1.06E-03	U	1.06E-03	5.00E-03	1.08E+00	3.35E+01		
B9 14-15'	75-25-2	SW8260B	11/11/2009	-14	-15	9.70E-04	U	9.70E-04	5.00E-03	1.08E+00	3.35E+01		

Bromomethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	74-83-9	SW8260B	8/31/2009	0	-1	2.05E-03	U	2.05E-03	5.00E-03	5.11E+00	3.49E+00		
B1 0-1'	74-83-9	SW8260B	11/11/2009	0	-1	2.09E-03	U	2.09E-03	5.00E-03	5.11E+00	3.49E+00		
B1 14-15'	74-83-9	SW8260B	11/11/2009	-14	-15	1.54E-03	U	1.54E-03	5.00E-03	5.11E+00	3.49E+00		
B10-1	74-83-9	SW8260B	9/2/2009	-2	-3	2.44E-03	U	2.44E-03	5.00E-03	5.11E+00	3.49E+00		
B10-2	74-83-9	SW8260B	9/2/2009	-13	-14	2.08E-03	U	2.08E-03	5.00E-03	5.11E+00	3.49E+00		
B2 1-1.5	74-83-9	SW8260B	9/1/2009	-1	-1.5	1.93E-03	U	1.93E-03	5.00E-03	5.11E+00	3.49E+00		
B2 21-22.5	74-83-9	SW8260B	9/1/2009	-21	-22.5	2.29E-03	U	2.29E-03	5.00E-03	5.11E+00	3.49E+00		
B3 12-13	74-83-9	SW8260B	8/31/2009	-12	-13	1.84E-03	U	1.84E-03	5.00E-03	5.11E+00	3.49E+00		
B3 2-3	74-83-9	SW8260B	8/31/2009	-2	-3	2.15E-03	U	2.15E-03	5.00E-03	5.11E+00	3.49E+00		
B4 14.5-15	74-83-9	SW8260B	9/1/2009	-14.5	-15	2.09E-03	U	2.09E-03	5.00E-03	5.11E+00	3.49E+00		
B4 2-2.5	74-83-9	SW8260B	9/1/2009	-2	-2.5	2.23E-03	U	2.23E-03	5.00E-03	5.11E+00	3.49E+00		
B5-1	74-83-9	SW8260B	9/2/2009	-1	-1.5	2.19E-03	U	2.19E-03	5.00E-03	5.11E+00	3.49E+00		
B5-2	74-83-9	SW8260B	9/2/2009	-14.5	-15	2.09E-03	U	2.09E-03	5.00E-03	5.11E+00	3.49E+00		
B6-1	74-83-9	SW8260B	9/2/2009	-0.5	-1	2.03E-03	U	2.03E-03	5.00E-03	5.11E+00	3.49E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Bromomethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B6-2	74-83-9	SW8260B	9/2/2009	-14.5	-15	2.09E-03	U	2.09E-03	5.00E-03	5.11E+00	3.49E+00		
B7 0-1'	74-83-9	SW8260B	11/11/2009	0	-1	1.65E-03	U	1.65E-03	5.00E-03	5.11E+00	3.49E+00		
B7 14-15'	74-83-9	SW8260B	11/11/2009	-14	-15	1.81E-03	U	1.81E-03	5.00E-03	5.11E+00	3.49E+00		
B8-1	74-83-9	SW8260B	9/2/2009	-1	-1.5	2.07E-03	U	2.07E-03	5.00E-03	5.11E+00	3.49E+00		
B8-2	74-83-9	SW8260B	9/2/2009	-14	-15	2.01E-03	U	2.01E-03	5.00E-03	5.11E+00	3.49E+00		
B8-3	74-83-9	SW8260B	9/2/2009	-8	-8.5	2.18E-03	U	2.18E-03	5.00E-03	5.11E+00	3.49E+00		
B9 0-1'	74-83-9	SW8260B	11/11/2009	0	-1	1.95E-03	U	1.95E-03	5.00E-03	5.11E+00	3.49E+00		
B9 14-15'	74-83-9	SW8260B	11/11/2009	-14	-15	1.79E-03	U	1.79E-03	5.00E-03	5.11E+00	3.49E+00		

Butyl benzyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	85-68-7	SW8270C	8/31/2009	0	-1	1.59E-01	U	1.59E-01	3.30E-01	7.30E+02	3.10E+04		
B1 0-1'	85-68-7	SW8270C	11/11/2009	0	-1	1.65E-01	U	1.65E-01	3.30E-01	7.30E+02	3.10E+04		
B1 14-15'	85-68-7	SW8270C	11/11/2009	-14	-15	1.48E-01	U	1.48E-01	3.30E-01	7.30E+02	3.10E+04		
B10-1	85-68-7	SW8270C	9/2/2009	-2	-3	1.90E-01	U	1.90E-01	3.30E-01	7.30E+02	3.10E+04		
B10-2	85-68-7	SW8270C	9/2/2009	-13	-14	1.62E-01	U	1.62E-01	3.30E-01	7.30E+02	3.10E+04		
B2 1-1.5	85-68-7	SW8270C	9/1/2009	-1	-1.5	1.50E-01	U	1.51E-01	3.30E-01	7.30E+02	3.10E+04		
B2 21-22.5	85-68-7	SW8270C	9/1/2009	-21	-22.5	1.78E-01	U	1.78E-01	3.30E-01	7.30E+02	3.10E+04		
B3 12-13	85-68-7	SW8270C	8/31/2009	-12	-13	1.43E-01	U	1.43E-01	3.30E-01	7.30E+02	3.10E+04		
B3 2-3	85-68-7	SW8270C	8/31/2009	-2	-3	1.68E-01	U	1.67E-01	3.30E-01	7.30E+02	3.10E+04		
B4 14-14.5	85-68-7	SW8270C	9/1/2009	-14	-14.5	1.61E-01	U	1.61E-01	3.30E-01	7.30E+02	3.10E+04		
B4 2-2.5	85-68-7	SW8270C	9/1/2009	-2	-2.5	1.74E-01	U	1.74E-01	3.30E-01	7.30E+02	3.10E+04		
B5-1	85-68-7	SW8270C	9/2/2009	-1	-1.5	1.71E-01	U	1.71E-01	3.30E-01	7.30E+02	3.10E+04		
B5-2	85-68-7	SW8270C	9/2/2009	-14.5	-15	1.63E-01	U	1.63E-01	3.30E-01	7.30E+02	3.10E+04		
B6-1	85-68-7	SW8270C	9/2/2009	-0.5	-1	1.58E-01	U	1.58E-01	3.30E-01	7.30E+02	3.10E+04		
B6-2	85-68-7	SW8270C	9/2/2009	-14.5	-15	1.63E-01	U	1.63E-01	3.30E-01	7.30E+02	3.10E+04		
B7 0-1'	85-68-7	SW8270C	11/11/2009	0	-1	1.52E-01	U	1.52E-01	3.30E-01	7.30E+02	3.10E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Butyl benzyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 14-15'	85-68-7	SW8270C	11/11/2009	-14	-15	1.57E-01	U	1.57E-01	3.30E-01	7.30E+02	3.10E+04		
B8-1	85-68-7	SW8270C	9/2/2009	-1	-1.5	1.61E-01	U	1.61E-01	3.30E-01	7.30E+02	3.10E+04		
B8-2	85-68-7	SW8270C	9/2/2009	-14	-15	1.57E-01	U	1.57E-01	3.30E-01	7.30E+02	3.10E+04		
B9 0-1'	85-68-7	SW8270C	11/11/2009	0	-1	1.61E-01	U	1.61E-01	3.30E-01	7.30E+02	3.10E+04		
B9 14-15'	85-68-7	SW8270C	11/11/2009	-14	-15	1.56E-01	U	1.56E-01	3.30E-01	7.30E+02	3.10E+04		

Cadmium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-43-9	SW6010B	8/31/2009	0	-1	8.14E-02	U	8.14E-02	5.00E-01	5.00E-01	2.40E+02	2.26E-01	1.40E+00
B1 0-1'	7440-43-9	SW6010B	11/11/2009	0	-1	8.41E-02	U	8.41E-02	5.00E-01	5.00E-01	2.40E+02	2.26E-01	1.40E+00
B1 14-15'	7440-43-9	SW6010B	11/11/2009	-14	-15	7.57E-02	U	7.57E-02	5.00E-01	5.00E-01	2.40E+02		
B10-1	7440-43-9	SW6010B	9/2/2009	-2	-3	9.71E-02	U	9.71E-02	5.00E-01	5.00E-01	2.40E+02	1.11E-01	4.00E-01
B10-2	7440-43-9	SW6010B	9/2/2009	-13	-14	8.26E-02	U	8.26E-02	5.00E-01	5.00E-01	2.40E+02		
B2 1-1.5	7440-43-9	SW6010B	9/1/2009	-1	-1.5	7.69E-02	U	7.69E-02	5.00E-01	5.00E-01	2.40E+02	1.11E-01	4.00E-01
B2 21-22.5	7440-43-9	SW6010B	9/1/2009	-21	-22.5	9.10E-02	U	9.10E-02	5.00E-01	5.00E-01	2.40E+02		
B3 12-13	7440-43-9	SW6010B	8/31/2009	-12	-13	7.32E-02	U	7.32E-02	5.00E-01	5.00E-01	2.40E+02		
B3 2-3	7440-43-9	SW6010B	8/31/2009	-2	-3	8.56E-02	U	8.56E-02	5.00E-01	5.00E-01	2.40E+02	1.11E-01	4.00E-01
B4 14-14.5	7440-43-9	SW6010B	9/1/2009	-14	-14.5	8.22E-02	U	8.22E-02	5.00E-01	5.00E-01	2.40E+02		
B4 2-2.5	7440-43-9	SW6010B	9/1/2009	-2	-2.5	8.87E-02	U	8.87E-02	5.00E-01	5.00E-01	2.40E+02	1.11E-01	4.00E-01
B5-1	7440-43-9	SW6010B	9/2/2009	-1	-1.5	8.73E-02	U	8.73E-02	5.00E-01	5.00E-01	2.40E+02	1.11E-01	4.00E-01
B5-2	7440-43-9	SW6010B	9/2/2009	-14.5	-15	8.31E-02	U	8.31E-02	5.00E-01	5.00E-01	2.40E+02		
B6-1	7440-43-9	SW6010B	9/2/2009	-0.5	-1	8.06E-02	U	8.06E-02	5.00E-01	5.00E-01	2.40E+02	2.26E-01	1.40E+00
B6-2	7440-43-9	SW6010B	9/2/2009	-14.5	-15	8.31E-02	U	8.31E-02	5.00E-01	5.00E-01	2.40E+02		
B7 0-1'	7440-43-9	SW6010B	11/11/2009	0	-1	7.77E-02	U	7.77E-02	5.00E-01	5.00E-01	2.40E+02	2.26E-01	1.40E+00
B7 14-15'	7440-43-9	SW6010B	11/11/2009	-14	-15	8.01E-02	U	8.01E-02	5.00E-01	5.00E-01	2.40E+02		
B8-1	7440-43-9	SW6010B	9/2/2009	-1	-1.5	8.23E-02	U	8.23E-02	5.00E-01	5.00E-01	2.40E+02	1.11E-01	4.00E-01
B8-2	7440-43-9	SW6010B	9/2/2009	-14	-15	8.00E-02	U	8.00E-02	5.00E-01	5.00E-01	2.40E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Cadmium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B9 0-1'	7440-43-9	SW6010B	11/11/2009	0	-1	8.21E-02	U	8.21E-02	5.00E-01	5.00E-01	2.40E+02	2.26E-01	1.40E+00
B9 14-15'	7440-43-9	SW6010B	11/11/2009	-14	-15	7.97E-02	U	7.97E-02	5.00E-01	5.00E-01	2.40E+02		

Calcium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-70-2	SW6010B	8/31/2009	0	-1	6.80E+02		1.74E+00	5.00E+00			2.26E-01	1.40E+00
B1 0-1'	7440-70-2	SW6010B	11/11/2009	0	-1	7.88E+02		1.80E+00	5.00E+00			2.26E-01	1.40E+00
B1 14-15'	7440-70-2	SW6010B	11/11/2009	-14	-15	8.32E+02		1.62E+00	5.00E+00				
B10-1	7440-70-2	SW6010B	9/2/2009	-2	-3	6.53E+02		2.08E+00	5.00E+00			1.11E-01	4.00E-01
B10-2	7440-70-2	SW6010B	9/2/2009	-13	-14	1.18E+03		1.77E+00	5.00E+00				
B2 1-1.5	7440-70-2	SW6010B	9/1/2009	-1	-1.5	7.25E+02		1.65E+00	5.00E+00			1.11E-01	4.00E-01
B2 21-22.5	7440-70-2	SW6010B	9/1/2009	-21	-22.5	2.18E+03		1.95E+00	5.00E+00				
B3 12-13	7440-70-2	SW6010B	8/31/2009	-12	-13	4.48E+02		1.57E+00	5.00E+00				
B3 2-3	7440-70-2	SW6010B	8/31/2009	-2	-3	2.78E+02		1.83E+00	5.00E+00			1.11E-01	4.00E-01
B4 14-14.5	7440-70-2	SW6010B	9/1/2009	-14	-14.5	1.79E+03		1.76E+00	5.00E+00				
B4 2-2.5	7440-70-2	SW6010B	9/1/2009	-2	-2.5	1.85E+02		1.90E+00	5.00E+00			1.11E-01	4.00E-01
B5-1	7440-70-2	SW6010B	9/2/2009	-1	-1.5	1.35E+03		1.87E+00	5.00E+00			1.11E-01	4.00E-01
B5-2	7440-70-2	SW6010B	9/2/2009	-14.5	-15	2.28E+03		1.78E+00	5.00E+00				
B6-1	7440-70-2	SW6010B	9/2/2009	-0.5	-1	1.13E+03		1.73E+00	5.00E+00			2.26E-01	1.40E+00
B6-2	7440-70-2	SW6010B	9/2/2009	-14.5	-15	2.02E+03		1.78E+00	5.00E+00				
B7 0-1'	7440-70-2	SW6010B	11/11/2009	0	-1	8.99E+02		1.67E+00	5.00E+00			2.26E-01	1.40E+00
B7 14-15'	7440-70-2	SW6010B	11/11/2009	-14	-15	1.70E+02		1.72E+00	5.00E+00				
B8-1	7440-70-2	SW6010B	9/2/2009	-1	-1.5	3.30E+02		1.76E+00	5.00E+00			1.11E-01	4.00E-01
B8-2	7440-70-2	SW6010B	9/2/2009	-14	-15	7.70E+02		1.71E+00	5.00E+00				
B9 0-1'	7440-70-2	SW6010B	11/11/2009	0	-1	4.49E+02		1.76E+00	5.00E+00			2.26E-01	1.40E+00
B9 14-15'	7440-70-2	SW6010B	11/11/2009	-14	-15	8.60E+02		1.71E+00	5.00E+00				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Carbon disulfide

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	75-15-0	SW8260B	8/31/2009	0	-1	1.34E-03	U	1.34E-03	5.00E-03	3.65E+02	1.03E+03		
B1 0-1'	75-15-0	SW8260B	11/11/2009	0	-1	1.42E-03	U	1.42E-03	5.00E-03	3.65E+02	1.03E+03		
B1 14-15'	75-15-0	SW8260B	11/11/2009	-14	-15	1.03E-03	U	1.03E-03	5.00E-03	3.65E+02	1.03E+03		
B10-1	75-15-0	SW8260B	9/2/2009	-2	-3	1.60E-03	U	1.60E-03	5.00E-03	3.65E+02	1.03E+03		
B10-2	75-15-0	SW8260B	9/2/2009	-13	-14	1.36E-03	U	1.36E-03	5.00E-03	3.65E+02	1.03E+03		
B2 1-1.5	75-15-0	SW8260B	9/1/2009	-1	-1.5	1.26E-03	U	1.26E-03	5.00E-03	3.65E+02	1.03E+03		
B2 21-22.5	75-15-0	SW8260B	9/1/2009	-21	-22.5	1.50E-03	U	1.50E-03	5.00E-03	3.65E+02	1.03E+03		
B3 12-13	75-15-0	SW8260B	8/31/2009	-12	-13	1.20E-03	U	1.20E-03	5.00E-03	3.65E+02	1.03E+03		
B3 2-3	75-15-0	SW8260B	8/31/2009	-2	-3	1.41E-03	U	1.41E-03	5.00E-03	3.65E+02	1.03E+03		
B4 14.5-15	75-15-0	SW8260B	9/1/2009	-14.5	-15	1.37E-03	U	1.37E-03	5.00E-03	3.65E+02	1.03E+03		
B4 2-2.5	75-15-0	SW8260B	9/1/2009	-2	-2.5	1.46E-03	U	1.46E-03	5.00E-03	3.65E+02	1.03E+03		
B5-1	75-15-0	SW8260B	9/2/2009	-1	-1.5	1.43E-03	U	1.43E-03	5.00E-03	3.65E+02	1.03E+03		
B5-2	75-15-0	SW8260B	9/2/2009	-14.5	-15	1.37E-03	U	1.37E-03	5.00E-03	3.65E+02	1.03E+03		
B6-1	75-15-0	SW8260B	9/2/2009	-0.5	-1	1.32E-03	U	1.32E-03	5.00E-03	3.65E+02	1.03E+03		
B6-2	75-15-0	SW8260B	9/2/2009	-14.5	-15	1.37E-03	U	1.37E-03	5.00E-03	3.65E+02	1.03E+03		
B7 0-1'	75-15-0	SW8260B	11/11/2009	0	-1	1.11E-03	U	1.11E-03	5.00E-03	3.65E+02	1.03E+03		
B7 14-15'	75-15-0	SW8260B	11/11/2009	-14	-15	1.22E-03	U	1.22E-03	5.00E-03	3.65E+02	1.03E+03		
B8-1	75-15-0	SW8260B	9/2/2009	-1	-1.5	1.35E-03	U	1.35E-03	5.00E-03	3.65E+02	1.03E+03		
B8-2	75-15-0	SW8260B	9/2/2009	-14	-15	1.31E-03	U	1.31E-03	5.00E-03	3.65E+02	1.03E+03		
B8-3	75-15-0	SW8260B	9/2/2009	-8	-8.5	1.43E-03	U	1.43E-03	5.00E-03	3.65E+02	1.03E+03		
B9 0-1'	75-15-0	SW8260B	11/11/2009	0	-1	1.31E-03	U	1.31E-03	5.00E-03	3.65E+02	1.03E+03		
B9 14-15'	75-15-0	SW8260B	11/11/2009	-14	-15	1.21E-03	U	1.21E-03	5.00E-03	3.65E+02	1.03E+03		

Carbon tetrachloride

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	56-23-5	SW8260B	8/31/2009	0	-1	8.48E-04	U	8.48E-04	5.00E-03	5.00E-01	3.53E-01		
B1 0-1'	56-23-5	SW8260B	11/11/2009	0	-1	1.26E-03	U	1.26E-03	5.00E-03	5.00E-01	3.53E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Carbon tetrachloride

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 14-15'	56-23-5	SW8260B	11/11/2009	-14	-15	9.24E-04	U	9.24E-04	5.00E-03	5.00E-01	3.53E-01		
B10-1	56-23-5	SW8260B	9/2/2009	-2	-3	1.01E-03	U	1.01E-03	5.00E-03	5.00E-01	3.53E-01		
B10-2	56-23-5	SW8260B	9/2/2009	-13	-14	8.61E-04	U	8.61E-04	5.00E-03	5.00E-01	3.53E-01		
B2 1-1.5	56-23-5	SW8260B	9/1/2009	-1	-1.5	8.01E-04	U	8.01E-04	5.00E-03	5.00E-01	3.53E-01		
B2 21-22.5	56-23-5	SW8260B	9/1/2009	-21	-22.5	9.48E-04	U	9.48E-04	5.00E-03	5.00E-01	3.53E-01		
B3 12-13	56-23-5	SW8260B	8/31/2009	-12	-13	7.62E-04	U	7.62E-04	5.00E-03	5.00E-01	3.53E-01		
B3 2-3	56-23-5	SW8260B	8/31/2009	-2	-3	8.91E-04	U	8.91E-04	5.00E-03	5.00E-01	3.53E-01		
B4 14.5-15	56-23-5	SW8260B	9/1/2009	-14.5	-15	8.66E-04	U	8.66E-04	5.00E-03	5.00E-01	3.53E-01		
B4 2-2.5	56-23-5	SW8260B	9/1/2009	-2	-2.5	9.24E-04	U	9.24E-04	5.00E-03	5.00E-01	3.53E-01		
B5-1	56-23-5	SW8260B	9/2/2009	-1	-1.5	9.09E-04	U	9.09E-04	5.00E-03	5.00E-01	3.53E-01		
B5-2	56-23-5	SW8260B	9/2/2009	-14.5	-15	8.66E-04	U	8.66E-04	5.00E-03	5.00E-01	3.53E-01		
B6-1	56-23-5	SW8260B	9/2/2009	-0.5	-1	8.40E-04	U	8.40E-04	5.00E-03	5.00E-01	3.53E-01		
B6-2	56-23-5	SW8260B	9/2/2009	-14.5	-15	8.66E-04	U	8.66E-04	5.00E-03	5.00E-01	3.53E-01		
B7 0-1'	56-23-5	SW8260B	11/11/2009	0	-1	9.97E-04	U	9.97E-04	5.00E-03	5.00E-01	3.53E-01		
B7 14-15'	56-23-5	SW8260B	11/11/2009	-14	-15	1.09E-03	U	1.09E-03	5.00E-03	5.00E-01	3.53E-01		
B8-1	56-23-5	SW8260B	9/2/2009	-1	-1.5	8.57E-04	U	8.57E-04	5.00E-03	5.00E-01	3.53E-01		
B8-2	56-23-5	SW8260B	9/2/2009	-14	-15	8.33E-04	U	8.33E-04	5.00E-03	5.00E-01	3.53E-01		
B8-3	56-23-5	SW8260B	9/2/2009	-8	-8.5	9.03E-04	U	9.03E-04	5.00E-03	5.00E-01	3.53E-01		
B9 0-1'	56-23-5	SW8260B	11/11/2009	0	-1	1.17E-03	U	1.17E-03	5.00E-03	5.00E-01	3.53E-01		
B9 14-15'	56-23-5	SW8260B	11/11/2009	-14	-15	1.08E-03	U	1.08E-03	5.00E-03	5.00E-01	3.53E-01		

Chlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	108-90-7	SW8260B	8/31/2009	0	-1	1.13E-03	U	1.13E-03	5.00E-03	1.00E+01	3.98E+02		
B1 0-1'	108-90-7	SW8260B	11/11/2009	0	-1	1.67E-03	U	1.67E-03	5.00E-03	1.00E+01	3.98E+02		
B1 14-15'	108-90-7	SW8260B	11/11/2009	-14	-15	1.23E-03	U	1.23E-03	5.00E-03	1.00E+01	3.98E+02		
B10-1	108-90-7	SW8260B	9/2/2009	-2	-3	1.34E-03	U	1.34E-03	5.00E-03	1.00E+01	3.98E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Chlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-2	108-90-7	SW8260B	9/2/2009	-13	-14	1.14E-03	U	1.14E-03	5.00E-03	1.00E+01	3.98E+02		
B2 1-1.5	108-90-7	SW8260B	9/1/2009	-1	-1.5	1.06E-03	U	1.06E-03	5.00E-03	1.00E+01	3.98E+02		
B2 21-22.5	108-90-7	SW8260B	9/1/2009	-21	-22.5	1.26E-03	U	1.26E-03	5.00E-03	1.00E+01	3.98E+02		
B3 12-13	108-90-7	SW8260B	8/31/2009	-12	-13	1.01E-03	U	1.01E-03	5.00E-03	1.00E+01	3.98E+02		
B3 2-3	108-90-7	SW8260B	8/31/2009	-2	-3	1.18E-03	U	1.18E-03	5.00E-03	1.00E+01	3.98E+02		
B4 14.5-15	108-90-7	SW8260B	9/1/2009	-14.5	-15	1.15E-03	U	1.15E-03	5.00E-03	1.00E+01	3.98E+02		
B4 2-2.5	108-90-7	SW8260B	9/1/2009	-2	-2.5	1.23E-03	U	1.23E-03	5.00E-03	1.00E+01	3.98E+02		
B5-1	108-90-7	SW8260B	9/2/2009	-1	-1.5	1.21E-03	U	1.21E-03	5.00E-03	1.00E+01	3.98E+02		
B5-2	108-90-7	SW8260B	9/2/2009	-14.5	-15	1.15E-03	U	1.15E-03	5.00E-03	1.00E+01	3.98E+02		
B6-1	108-90-7	SW8260B	9/2/2009	-0.5	-1	1.12E-03	U	1.12E-03	5.00E-03	1.00E+01	3.98E+02		
B6-2	108-90-7	SW8260B	9/2/2009	-14.5	-15	1.15E-03	U	1.15E-03	5.00E-03	1.00E+01	3.98E+02		
B7 0-1'	108-90-7	SW8260B	11/11/2009	0	-1	1.32E-03	U	1.32E-03	5.00E-03	1.00E+01	3.98E+02		
B7 14-15'	108-90-7	SW8260B	11/11/2009	-14	-15	1.45E-03	U	1.45E-03	5.00E-03	1.00E+01	3.98E+02		
B8-1	108-90-7	SW8260B	9/2/2009	-1	-1.5	1.14E-03	U	1.14E-03	5.00E-03	1.00E+01	3.98E+02		
B8-2	108-90-7	SW8260B	9/2/2009	-14	-15	1.11E-03	U	1.11E-03	5.00E-03	1.00E+01	3.98E+02		
B8-3	108-90-7	SW8260B	9/2/2009	-8	-8.5	1.20E-03	U	1.20E-03	5.00E-03	1.00E+01	3.98E+02		
B9 0-1'	108-90-7	SW8260B	11/11/2009	0	-1	1.55E-03	U	1.55E-03	5.00E-03	1.00E+01	3.98E+02		
B9 14-15'	108-90-7	SW8260B	11/11/2009	-14	-15	1.42E-03	U	1.42E-03	5.00E-03	1.00E+01	3.98E+02		

Chloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	75-00-3	SW8260B	8/31/2009	0	-1	2.00E-03	U	2.00E-03	5.00E-03	1.46E+03	1.13E+04		
B1 0-1'	75-00-3	SW8260B	11/11/2009	0	-1	1.25E-03	U	1.25E-03	5.00E-03	1.46E+03	1.13E+04		
B1 14-15'	75-00-3	SW8260B	11/11/2009	-14	-15	9.14E-04	U	9.14E-04	5.00E-03	1.46E+03	1.13E+04		
B10-1	75-00-3	SW8260B	9/2/2009	-2	-3	2.39E-03	U	2.39E-03	5.00E-03	1.46E+03	1.13E+04		
B10-2	75-00-3	SW8260B	9/2/2009	-13	-14	2.03E-03	U	2.03E-03	5.00E-03	1.46E+03	1.13E+04		
B2 1-1.5	75-00-3	SW8260B	9/1/2009	-1	-1.5	1.89E-03	U	1.89E-03	5.00E-03	1.46E+03	1.13E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Chloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B2 21-22.5	75-00-3	SW8260B	9/1/2009	-21	-22.5	2.24E-03	U	2.24E-03	5.00E-03	1.46E+03	1.13E+04		
B3 12-13	75-00-3	SW8260B	8/31/2009	-12	-13	1.80E-03	U	1.80E-03	5.00E-03	1.46E+03	1.13E+04		
B3 2-3	75-00-3	SW8260B	8/31/2009	-2	-3	2.10E-03	U	2.10E-03	5.00E-03	1.46E+03	1.13E+04		
B4 14.5-15	75-00-3	SW8260B	9/1/2009	-14.5	-15	2.04E-03	U	2.04E-03	5.00E-03	1.46E+03	1.13E+04		
B4 2-2.5	75-00-3	SW8260B	9/1/2009	-2	-2.5	2.18E-03	U	2.18E-03	5.00E-03	1.46E+03	1.13E+04		
B5-1	75-00-3	SW8260B	9/2/2009	-1	-1.5	2.14E-03	U	2.14E-03	5.00E-03	1.46E+03	1.13E+04		
B5-2	75-00-3	SW8260B	9/2/2009	-14.5	-15	2.04E-03	U	2.04E-03	5.00E-03	1.46E+03	1.13E+04		
B6-1	75-00-3	SW8260B	9/2/2009	-0.5	-1	1.98E-03	U	1.98E-03	5.00E-03	1.46E+03	1.13E+04		
B6-2	75-00-3	SW8260B	9/2/2009	-14.5	-15	2.04E-03	U	2.04E-03	5.00E-03	1.46E+03	1.13E+04		
B7 0-1'	75-00-3	SW8260B	11/11/2009	0	-1	9.88E-04	U	9.88E-04	5.00E-03	1.46E+03	1.13E+04		
B7 14-15'	75-00-3	SW8260B	11/11/2009	-14	-15	1.08E-03	U	1.08E-03	5.00E-03	1.46E+03	1.13E+04		
B8-1	75-00-3	SW8260B	9/2/2009	-1	-1.5	2.02E-03	U	2.02E-03	5.00E-03	1.46E+03	1.13E+04		
B8-2	75-00-3	SW8260B	9/2/2009	-14	-15	1.97E-03	U	1.97E-03	5.00E-03	1.46E+03	1.13E+04		
B8-3	75-00-3	SW8260B	9/2/2009	-8	-8.5	2.13E-03	U	2.13E-03	5.00E-03	1.46E+03	1.13E+04		
B9 0-1'	75-00-3	SW8260B	11/11/2009	0	-1	1.16E-03	U	1.16E-03	5.00E-03	1.46E+03	1.13E+04		
B9 14-15'	75-00-3	SW8260B	11/11/2009	-14	-15	1.07E-03	U	1.07E-03	5.00E-03	1.46E+03	1.13E+04		

Chloroform

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	67-66-3	SW8260B	8/31/2009	0	-1	1.17E-03	U	1.17E-03	5.00E-03	3.65E+01	3.06E-01		
B1 0-1'	67-66-3	SW8260B	11/11/2009	0	-1	1.74E-03	U	1.74E-03	5.00E-03	3.65E+01	3.06E-01		
B1 14-15'	67-66-3	SW8260B	11/11/2009	-14	-15	1.28E-03	U	1.28E-03	5.00E-03	3.65E+01	3.06E-01		
B10-1	67-66-3	SW8260B	9/2/2009	-2	-3	1.40E-03	U	1.40E-03	5.00E-03	3.65E+01	3.06E-01		
B10-2	67-66-3	SW8260B	9/2/2009	-13	-14	1.19E-03	U	1.19E-03	5.00E-03	3.65E+01	3.06E-01		
B2 1-1.5	67-66-3	SW8260B	9/1/2009	-1	-1.5	1.11E-03	U	1.11E-03	5.00E-03	3.65E+01	3.06E-01		
B2 21-22.5	67-66-3	SW8260B	9/1/2009	-21	-22.5	1.31E-03	U	1.31E-03	5.00E-03	3.65E+01	3.06E-01		
B3 12-13	67-66-3	SW8260B	8/31/2009	-12	-13	1.06E-03	U	1.06E-03	5.00E-03	3.65E+01	3.06E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Chloroform

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 2-3	67-66-3	SW8260B	8/31/2009	-2	-3	1.23E-03	U	1.23E-03	5.00E-03	3.65E+01	3.06E-01		
B4 14.5-15	67-66-3	SW8260B	9/1/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	3.65E+01	3.06E-01		
B4 2-2.5	67-66-3	SW8260B	9/1/2009	-2	-2.5	1.28E-03	U	1.28E-03	5.00E-03	3.65E+01	3.06E-01		
B5-1	67-66-3	SW8260B	9/2/2009	-1	-1.5	1.26E-03	U	1.26E-03	5.00E-03	3.65E+01	3.06E-01		
B5-2	67-66-3	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	3.65E+01	3.06E-01		
B6-1	67-66-3	SW8260B	9/2/2009	-0.5	-1	1.16E-03	U	1.16E-03	5.00E-03	3.65E+01	3.06E-01		
B6-2	67-66-3	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	3.65E+01	3.06E-01		
B7 0-1'	67-66-3	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	5.00E-03	3.65E+01	3.06E-01		
B7 14-15'	67-66-3	SW8260B	11/11/2009	-14	-15	1.52E-03	U	1.52E-03	5.00E-03	3.65E+01	3.06E-01		
B8-1	67-66-3	SW8260B	9/2/2009	-1	-1.5	1.19E-03	U	1.19E-03	5.00E-03	3.65E+01	3.06E-01		
B8-2	67-66-3	SW8260B	9/2/2009	-14	-15	1.15E-03	U	1.15E-03	5.00E-03	3.65E+01	3.06E-01		
B8-3	67-66-3	SW8260B	9/2/2009	-8	-8.5	1.25E-03	U	1.25E-03	5.00E-03	3.65E+01	3.06E-01		
B9 0-1'	67-66-3	SW8260B	11/11/2009	0	-1	1.62E-03	U	1.62E-03	5.00E-03	3.65E+01	3.06E-01		
B9 14-15'	67-66-3	SW8260B	11/11/2009	-14	-15	1.49E-03	U	1.49E-03	5.00E-03	3.65E+01	3.06E-01		

Chloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	74-87-3	SW8260B	8/31/2009	0	-1	3.55E-03	U	3.55E-03	5.00E-03	6.55E+00	2.27E+00		
B1 0-1'	74-87-3	SW8260B	11/11/2009	0	-1	1.53E-03	U	1.53E-03	5.00E-03	6.55E+00	2.27E+00		
B1 14-15'	74-87-3	SW8260B	11/11/2009	-14	-15	1.11E-03	U	1.11E-03	5.00E-03	6.55E+00	2.27E+00		
B10-1	74-87-3	SW8260B	9/2/2009	-2	-3	4.23E-03	U	4.23E-03	5.00E-03	6.55E+00	2.27E+00		
B10-2	74-87-3	SW8260B	9/2/2009	-13	-14	3.60E-03	U	3.60E-03	5.00E-03	6.55E+00	2.27E+00		
B2 1-1.5	74-87-3	SW8260B	9/1/2009	-1	-1.5	3.35E-03	U	3.35E-03	5.00E-03	6.55E+00	2.27E+00		
B2 21-22.5	74-87-3	SW8260B	9/1/2009	-21	-22.5	3.97E-03	U	3.97E-03	5.00E-03	6.55E+00	2.27E+00		
B3 12-13	74-87-3	SW8260B	8/31/2009	-12	-13	3.19E-03	U	3.19E-03	5.00E-03	6.55E+00	2.27E+00		
B3 2-3	74-87-3	SW8260B	8/31/2009	-2	-3	3.73E-03	U	3.73E-03	5.00E-03	6.55E+00	2.27E+00		
B4 14.5-15	74-87-3	SW8260B	9/1/2009	-14.5	-15	3.62E-03	U	3.62E-03	5.00E-03	6.55E+00	2.27E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Chloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 2-2.5	74-87-3	SW8260B	9/1/2009	-2	-2.5	3.87E-03	U	3.87E-03	5.00E-03	6.55E+00	2.27E+00		
B5-1	74-87-3	SW8260B	9/2/2009	-1	-1.5	3.80E-03	U	3.80E-03	5.00E-03	6.55E+00	2.27E+00		
B5-2	74-87-3	SW8260B	9/2/2009	-14.5	-15	3.62E-03	U	3.62E-03	5.00E-03	6.55E+00	2.27E+00		
B6-1	74-87-3	SW8260B	9/2/2009	-0.5	-1	3.51E-03	U	3.51E-03	5.00E-03	6.55E+00	2.27E+00		
B6-2	74-87-3	SW8260B	9/2/2009	-14.5	-15	3.62E-03	U	3.62E-03	5.00E-03	6.55E+00	2.27E+00		
B7 0-1'	74-87-3	SW8260B	11/11/2009	0	-1	1.21E-03	U	1.21E-03	5.00E-03	6.55E+00	2.27E+00		
B7 14-15'	74-87-3	SW8260B	11/11/2009	-14	-15	1.33E-03	U	1.33E-03	5.00E-03	6.55E+00	2.27E+00		
B8-1	74-87-3	SW8260B	9/2/2009	-1	-1.5	3.58E-03	U	3.58E-03	5.00E-03	6.55E+00	2.27E+00		
B8-2	74-87-3	SW8260B	9/2/2009	-14	-15	3.49E-03	U	3.49E-03	5.00E-03	6.55E+00	2.27E+00		
B8-3	74-87-3	SW8260B	9/2/2009	-8	-8.5	3.78E-03	U	3.78E-03	5.00E-03	6.55E+00	2.27E+00		
B9 0-1'	74-87-3	SW8260B	11/11/2009	0	-1	1.42E-03	U	1.42E-03	5.00E-03	6.55E+00	2.27E+00		
B9 14-15'	74-87-3	SW8260B	11/11/2009	-14	-15	1.30E-03	U	1.30E-03	5.00E-03	6.55E+00	2.27E+00		

Chromium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-47-3	SW6010B	8/31/2009	0	-1	2.72E+01		2.57E-01	1.00E+00	2.40E+03	5.90E+04	1.33E+01	3.67E+01
B1 0-1'	7440-47-3	SW6010B	11/11/2009	0	-1	2.07E+01		2.66E-01	1.00E+00	2.40E+03	5.90E+04	1.33E+01	3.67E+01
B1 14-15'	7440-47-3	SW6010B	11/11/2009	-14	-15	7.37E+00		2.39E-01	1.00E+00	2.40E+03	5.90E+04		
B10-1	7440-47-3	SW6010B	9/2/2009	-2	-3	2.27E+01		3.07E-01	1.00E+00	2.40E+03	5.90E+04	1.64E+01	3.86E+01
B10-2	7440-47-3	SW6010B	9/2/2009	-13	-14	9.13E+00		2.61E-01	1.00E+00	2.40E+03	5.90E+04		
B2 1-1.5	7440-47-3	SW6010B	9/1/2009	-1	-1.5	2.19E+01		2.43E-01	1.00E+00	2.40E+03	5.90E+04	1.64E+01	3.86E+01
B2 21-22.5	7440-47-3	SW6010B	9/1/2009	-21	-22.5	1.64E+01		2.87E-01	1.00E+00	2.40E+03	5.90E+04		
B3 12-13	7440-47-3	SW6010B	8/31/2009	-12	-13	8.94E+00		2.31E-01	1.00E+00	2.40E+03	5.90E+04		
B3 2-3	7440-47-3	SW6010B	8/31/2009	-2	-3	2.75E+01		2.70E-01	1.00E+00	2.40E+03	5.90E+04	1.64E+01	3.86E+01
B4 14-14.5	7440-47-3	SW6010B	9/1/2009	-14	-14.5	2.10E+01		2.59E-01	1.00E+00	2.40E+03	5.90E+04		
B4 2-2.5	7440-47-3	SW6010B	9/1/2009	-2	-2.5	2.84E+01		2.80E-01	1.00E+00	2.40E+03	5.90E+04	1.64E+01	3.86E+01
B5-1	7440-47-3	SW6010B	9/2/2009	-1	-1.5	2.22E+01		2.76E-01	1.00E+00	2.40E+03	5.90E+04	1.64E+01	3.86E+01

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Chromium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B5-2	7440-47-3	SW6010B	9/2/2009	-14.5	-15	3.16E+01		2.62E-01	1.00E+00	2.40E+03	5.90E+04		
B6-1	7440-47-3	SW6010B	9/2/2009	-0.5	-1	1.90E+01		2.55E-01	1.00E+00	2.40E+03	5.90E+04	1.33E+01	3.67E+01
B6-2	7440-47-3	SW6010B	9/2/2009	-14.5	-15	1.91E+01		2.62E-01	1.00E+00	2.40E+03	5.90E+04		
B7 0-1'	7440-47-3	SW6010B	11/11/2009	0	-1	7.74E+00		2.45E-01	1.00E+00	2.40E+03	5.90E+04	1.33E+01	3.67E+01
B7 14-15'	7440-47-3	SW6010B	11/11/2009	-14	-15	8.14E+00		2.53E-01	1.00E+00	2.40E+03	5.90E+04		
B8-1	7440-47-3	SW6010B	9/2/2009	-1	-1.5	1.88E+01		2.60E-01	1.00E+00	2.40E+03	5.90E+04	1.64E+01	3.86E+01
B8-2	7440-47-3	SW6010B	9/2/2009	-14	-15	1.06E+01		2.53E-01	1.00E+00	2.40E+03	5.90E+04		
B9 0-1'	7440-47-3	SW6010B	11/11/2009	0	-1	1.51E+01		2.59E-01	1.00E+00	2.40E+03	5.90E+04	1.33E+01	3.67E+01
B9 14-15'	7440-47-3	SW6010B	11/11/2009	-14	-15	7.62E+00		2.52E-01	1.00E+00	2.40E+03	5.90E+04		

Chromium, Hexavalent

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	18540-29-9	SW7196A	8/31/2009	0	-1	4.88E+00	U	2.44E-01	5.00E-01	1.00E+01	2.01E+02		
B1 0-1'	18540-29-9	SW7196A	11/11/2009	0	-1	6.63E+00	U	3.32E-01	1.00E+00	1.00E+01	2.01E+02		
B1 14-15'	18540-29-9	SW7196A	11/11/2009	-14	-15	5.39E+00	U	2.69E-01	1.00E+00	1.00E+01	2.01E+02		
B10-1	18540-29-9	SW7196A	9/2/2009	-2	-3	5.83E+00	U	2.91E-01	5.00E-01	1.00E+01	2.01E+02		
B10-2	18540-29-9	SW7196A	9/2/2009	-13	-14	4.96E+00	U	2.48E-01	5.00E-01	1.00E+01	2.01E+02		
B2 1-1.5	18540-29-9	SW7196A	9/1/2009	-1	-1.5	4.62E+00	U	2.31E-01	5.00E-01	1.00E+01	2.01E+02		
B2 21-22.5	18540-29-9	SW7196A	9/1/2009	-21	-22.5	5.46E+00	U	2.73E-01	5.00E-01	1.00E+01	2.01E+02		
B3 12-13	18540-29-9	SW7196A	8/31/2009	-12	-13	4.39E+00	U	2.20E-01	5.00E-01	1.00E+01	2.01E+02		
B3 2-3	18540-29-9	SW7196A	8/31/2009	-2	-3	5.13E+00	U	2.57E-01	5.00E-01	1.00E+01	2.01E+02		
B4 14-14.5	18540-29-9	SW7196A	9/1/2009	-14	-14.5	4.93E+00	U	2.46E-01	5.00E-01	1.00E+01	2.01E+02		
B4 2-2.5	18540-29-9	SW7196A	9/1/2009	-2	-2.5	5.32E+00	U	2.66E-01	5.00E-01	1.00E+01	2.01E+02		
B5-1	18540-29-9	SW7196A	9/2/2009	-1	-1.5	5.24E+00	U	2.62E-01	5.00E-01	1.00E+01	2.01E+02		
B5-2	18540-29-9	SW7196A	9/2/2009	-14.5	-15	4.99E+00	U	2.49E-01	5.00E-01	1.00E+01	2.01E+02		
B6-1	18540-29-9	SW7196A	9/2/2009	-0.5	-1	4.84E+00	U	2.42E-01	5.00E-01	1.00E+01	2.01E+02		
B6-2	18540-29-9	SW7196A	9/2/2009	-14.5	-15	4.99E+00	U	2.49E-01	5.00E-01	1.00E+01	2.01E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Chromium, Hexavalent

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 0-1'	18540-29-9	SW7196A	11/11/2009	0	-1	2.83E-01	U	2.83E-01	1.00E+00	1.00E+01	2.01E+02		
B7 14-15'	18540-29-9	SW7196A	11/11/2009	-14	-15	3.01E-01	U	3.01E-01	1.00E+00	1.00E+01	2.01E+02		
B8-1	18540-29-9	SW7196A	9/2/2009	-1	-1.5	4.94E+00	U	2.47E-01	5.00E-01	1.00E+01	2.01E+02		
B8-2	18540-29-9	SW7196A	9/2/2009	-14	-15	4.80E+00	U	2.40E-01	5.00E-01	1.00E+01	2.01E+02		
B9 0-1'	18540-29-9	SW7196A	11/11/2009	0	-1	3.17E-01	U	3.17E-01	1.00E+00	1.00E+01	2.01E+02		
B9 14-15'	18540-29-9	SW7196A	11/11/2009	-14	-15	2.98E-01	U	2.98E-01	1.00E+00	1.00E+01	2.01E+02		

Chrysene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	218-01-9	SW8270C	8/31/2009	0	-1	1.40E-01	U	1.40E-01	3.30E-01	1.17E+00	6.26E+01		
B1 0-1'	218-01-9	SW8270C	11/11/2009	0	-1	1.44E-01	U	1.44E-01	3.30E-01	1.17E+00	6.26E+01		
B1 14-15'	218-01-9	SW8270C	11/11/2009	-14	-15	1.30E-01	U	1.30E-01	3.30E-01	1.17E+00	6.26E+01		
B10-1	218-01-9	SW8270C	9/2/2009	-2	-3	1.66E-01	U	1.66E-01	3.30E-01	1.17E+00	6.26E+01		
B10-2	218-01-9	SW8270C	9/2/2009	-13	-14	1.42E-01	U	1.42E-01	3.30E-01	1.17E+00	6.26E+01		
B2 1-1.5	218-01-9	SW8270C	9/1/2009	-1	-1.5	1.32E-01	U	1.32E-01	3.30E-01	1.17E+00	6.26E+01		
B2 21-22.5	218-01-9	SW8270C	9/1/2009	-21	-22.5	1.56E-01	U	1.56E-01	3.30E-01	1.17E+00	6.26E+01		
B3 12-13	218-01-9	SW8270C	8/31/2009	-12	-13	1.26E-01	U	1.25E-01	3.30E-01	1.17E+00	6.26E+01		
B3 2-3	218-01-9	SW8270C	8/31/2009	-2	-3	1.47E-01	U	1.47E-01	3.30E-01	1.17E+00	6.26E+01		
B4 14-14.5	218-01-9	SW8270C	9/1/2009	-14	-14.5	1.41E-01	U	1.41E-01	3.30E-01	1.17E+00	6.26E+01		
B4 2-2.5	218-01-9	SW8270C	9/1/2009	-2	-2.5	1.52E-01	U	1.52E-01	3.30E-01	1.17E+00	6.26E+01		
B5-1	218-01-9	SW8270C	9/2/2009	-1	-1.5	1.50E-01	U	1.50E-01	3.30E-01	1.17E+00	6.26E+01		
B5-2	218-01-9	SW8270C	9/2/2009	-14.5	-15	1.42E-01	U	1.43E-01	3.30E-01	1.17E+00	6.26E+01		
B6-1	218-01-9	SW8270C	9/2/2009	-0.5	-1	1.38E-01	U	1.38E-01	3.30E-01	1.17E+00	6.26E+01		
B6-2	218-01-9	SW8270C	9/2/2009	-14.5	-15	1.42E-01	U	1.43E-01	3.30E-01	1.17E+00	6.26E+01		
B7 0-1'	218-01-9	SW8270C	11/11/2009	0	-1	1.33E-01	U	1.33E-01	3.30E-01	1.17E+00	6.26E+01		
B7 14-15'	218-01-9	SW8270C	11/11/2009	-14	-15	1.37E-01	U	1.37E-01	3.30E-01	1.17E+00	6.26E+01		
B8-1	218-01-9	SW8270C	9/2/2009	-1	-1.5	1.41E-01	U	1.41E-01	3.30E-01	1.17E+00	6.26E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Chrysene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-2	218-01-9	SW8270C	9/2/2009	-14	-15	1.37E-01	U	1.37E-01	3.30E-01	1.17E+00	6.26E+01		
B9 0-1'	218-01-9	SW8270C	11/11/2009	0	-1	1.41E-01	U	1.41E-01	3.30E-01	1.17E+00	6.26E+01		
B9 14-15'	218-01-9	SW8270C	11/11/2009	-14	-15	1.37E-01	U	1.37E-01	3.30E-01	1.17E+00	6.26E+01		

cis-1,2-Dichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	156-59-2	SW8260B	8/31/2009	0	-1	1.06E-03	U	1.06E-03	5.00E-03	7.00E+00	1.15E+03		
B1 0-1'	156-59-2	SW8260B	11/11/2009	0	-1	1.59E-03	U	1.59E-03	5.00E-03	7.00E+00	1.15E+03		
B1 14-15'	156-59-2	SW8260B	11/11/2009	-14	-15	1.16E-03	U	1.16E-03	5.00E-03	7.00E+00	1.15E+03		
B10-1	156-59-2	SW8260B	9/2/2009	-2	-3	1.27E-03	U	1.27E-03	5.00E-03	7.00E+00	1.15E+03		
B10-2	156-59-2	SW8260B	9/2/2009	-13	-14	1.08E-03	U	1.08E-03	5.00E-03	7.00E+00	1.15E+03		
B2 1-1.5	156-59-2	SW8260B	9/1/2009	-1	-1.5	1.00E-03	U	1.00E-03	5.00E-03	7.00E+00	1.15E+03		
B2 21-22.5	156-59-2	SW8260B	9/1/2009	-21	-22.5	1.19E-03	U	1.19E-03	5.00E-03	7.00E+00	1.15E+03		
B3 12-13	156-59-2	SW8260B	8/31/2009	-12	-13	9.56E-04	U	9.56E-04	5.00E-03	7.00E+00	1.15E+03		
B3 2-3	156-59-2	SW8260B	8/31/2009	-2	-3	1.12E-03	U	1.12E-03	5.00E-03	7.00E+00	1.15E+03		
B4 14.5-15	156-59-2	SW8260B	9/1/2009	-14.5	-15	1.09E-03	U	1.09E-03	5.00E-03	7.00E+00	1.15E+03		
B4 2-2.5	156-59-2	SW8260B	9/1/2009	-2	-2.5	1.16E-03	U	1.16E-03	5.00E-03	7.00E+00	1.15E+03		
B5-1	156-59-2	SW8260B	9/2/2009	-1	-1.5	1.14E-03	U	1.14E-03	5.00E-03	7.00E+00	1.15E+03		
B5-2	156-59-2	SW8260B	9/2/2009	-14.5	-15	1.09E-03	U	1.09E-03	5.00E-03	7.00E+00	1.15E+03		
B6-1	156-59-2	SW8260B	9/2/2009	-0.5	-1	1.05E-03	U	1.05E-03	5.00E-03	7.00E+00	1.15E+03		
B6-2	156-59-2	SW8260B	9/2/2009	-14.5	-15	1.09E-03	U	1.09E-03	5.00E-03	7.00E+00	1.15E+03		
B7 0-1'	156-59-2	SW8260B	11/11/2009	0	-1	1.24E-03	U	1.24E-03	5.00E-03	7.00E+00	1.15E+03		
B7 14-15'	156-59-2	SW8260B	11/11/2009	-14	-15	1.37E-03	U	1.37E-03	5.00E-03	7.00E+00	1.15E+03		
B8-1	156-59-2	SW8260B	9/2/2009	-1	-1.5	1.07E-03	U	1.07E-03	5.00E-03	7.00E+00	1.15E+03		
B8-2	156-59-2	SW8260B	9/2/2009	-14	-15	1.04E-03	U	1.04E-03	5.00E-03	7.00E+00	1.15E+03		
B8-3	156-59-2	SW8260B	9/2/2009	-8	-8.5	1.13E-03	U	1.13E-03	5.00E-03	7.00E+00	1.15E+03		
B9 0-1'	156-59-2	SW8260B	11/11/2009	0	-1	1.47E-03	U	1.47E-03	5.00E-03	7.00E+00	1.15E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

cis-1,2-Dichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B9 14-15'	156-59-2	SW8260B	11/11/2009	-14	-15	1.34E-03	U	1.34E-03	5.00E-03	7.00E+00	1.15E+03		

cis-1,3-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	10061-01-5	SW8260B	8/31/2009	0	-1	1.17E-03	U	1.17E-03	5.00E-03	1.58E-01	1.19E+01		
B1 0-1'	10061-01-5	SW8260B	11/11/2009	0	-1	6.07E-04	U	6.07E-04	1.00E-03	1.58E-01	1.19E+01		
B1 0-1'	10061-01-5	SW8260B	11/11/2009	0	-1	1.74E-03	U	1.74E-03	5.00E-03	1.58E-01	1.19E+01		
B1 14-15'	10061-01-5	SW8260B	11/11/2009	-14	-15	4.91E-04	U	4.91E-04	1.00E-03	1.58E-01	1.19E+01		
B1 14-15'	10061-01-5	SW8260B	11/11/2009	-14	-15	1.28E-03	U	1.28E-03	5.00E-03	1.58E-01	1.19E+01		
B10-1	10061-01-5	SW8260B	9/2/2009	-2	-3	1.40E-03	U	1.40E-03	5.00E-03	1.58E-01	1.19E+01		
B10-2	10061-01-5	SW8260B	9/2/2009	-13	-14	1.19E-03	U	1.19E-03	5.00E-03	1.58E-01	1.19E+01		
B2 1-1.5	10061-01-5	SW8260B	9/1/2009	-1	-1.5	1.11E-03	U	1.11E-03	5.00E-03	1.58E-01	1.19E+01		
B2 21-22.5	10061-01-5	SW8260B	9/1/2009	-21	-22.5	1.31E-03	U	1.31E-03	5.00E-03	1.58E-01	1.19E+01		
B3 12-13	10061-01-5	SW8260B	8/31/2009	-12	-13	1.06E-03	U	1.06E-03	5.00E-03	1.58E-01	1.19E+01		
B3 2-3	10061-01-5	SW8260B	8/31/2009	-2	-3	1.23E-03	U	1.23E-03	5.00E-03	1.58E-01	1.19E+01		
B4 14.5-15	10061-01-5	SW8260B	9/1/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	1.58E-01	1.19E+01		
B4 2-2.5	10061-01-5	SW8260B	9/1/2009	-2	-2.5	1.28E-03	U	1.28E-03	5.00E-03	1.58E-01	1.19E+01		
B5-1	10061-01-5	SW8260B	9/2/2009	-1	-1.5	1.26E-03	U	1.26E-03	5.00E-03	1.58E-01	1.19E+01		
B5-2	10061-01-5	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	1.58E-01	1.19E+01		
B6-1	10061-01-5	SW8260B	9/2/2009	-0.5	-1	1.16E-03	U	1.16E-03	5.00E-03	1.58E-01	1.19E+01		
B6-2	10061-01-5	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	1.58E-01	1.19E+01		
B7 0-1'	10061-01-5	SW8260B	11/11/2009	0	-1	5.17E-04	U	5.17E-04	1.00E-03	1.58E-01	1.19E+01		
B7 0-1'	10061-01-5	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	5.00E-03	1.58E-01	1.19E+01		
B7 14-15'	10061-01-5	SW8260B	11/11/2009	-14	-15	1.52E-03	U	1.52E-03	5.00E-03	1.58E-01	1.19E+01		
B7 14-15'	10061-01-5	SW8260B	11/11/2009	-14	-15	5.50E-04	U	5.50E-04	1.00E-03	1.58E-01	1.19E+01		
B8-1	10061-01-5	SW8260B	9/2/2009	-1	-1.5	1.19E-03	U	1.19E-03	5.00E-03	1.58E-01	1.19E+01		
B8-2	10061-01-5	SW8260B	9/2/2009	-14	-15	1.15E-03	U	1.15E-03	5.00E-03	1.58E-01	1.19E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

cis-1,3-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-3	10061-01-5	SW8260B	9/2/2009	-8	-8.5	1.25E-03	U	1.25E-03	5.00E-03	1.58E-01	1.19E+01		
B9 0-1'	10061-01-5	SW8260B	11/11/2009	0	-1	1.62E-03	U	1.62E-03	5.00E-03	1.58E-01	1.19E+01		
B9 0-1'	10061-01-5	SW8260B	11/11/2009	0	-1	5.77E-04	U	5.77E-04	1.00E-03	1.58E-01	1.19E+01		
B9 14-15'	10061-01-5	SW8260B	11/11/2009	-14	-15	1.49E-03	U	1.49E-03	5.00E-03	1.58E-01	1.19E+01		
B9 14-15'	10061-01-5	SW8260B	11/11/2009	-14	-15	5.44E-04	U	5.44E-04	1.00E-03	1.58E-01	1.19E+01		

Cobalt

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-48-4	SW6010B	8/31/2009	0	-1	1.03E+01		4.30E-01	1.00E+00	2.19E+02	1.53E+04	4.77E+00	6.13E+00
B1 0-1'	7440-48-4	SW6010B	11/11/2009	0	-1	4.22E+00		4.45E-01	1.00E+00	2.19E+02	1.53E+04	4.77E+00	6.13E+00
B1 14-15'	7440-48-4	SW6010B	11/11/2009	-14	-15	2.47E+00		4.00E-01	1.00E+00	2.19E+02	1.53E+04		
B10-1	7440-48-4	SW6010B	9/2/2009	-2	-3	4.52E+00		5.13E-01	1.00E+00	2.19E+02	1.53E+04	3.34E+00	6.92E+00
B10-2	7440-48-4	SW6010B	9/2/2009	-13	-14	2.08E+01		4.37E-01	1.00E+00	2.19E+02	1.53E+04		
B2 1-1.5	7440-48-4	SW6010B	9/1/2009	-1	-1.5	4.54E+00		4.07E-01	1.00E+00	2.19E+02	1.53E+04	3.34E+00	6.92E+00
B2 21-22.5	7440-48-4	SW6010B	9/1/2009	-21	-22.5	2.30E+01		4.81E-01	1.00E+00	2.19E+02	1.53E+04		
B3 12-13	7440-48-4	SW6010B	8/31/2009	-12	-13	7.32E+00		3.87E-01	1.00E+00	2.19E+02	1.53E+04		
B3 2-3	7440-48-4	SW6010B	8/31/2009	-2	-3	5.18E+00		4.52E-01	1.00E+00	2.19E+02	1.53E+04	3.34E+00	6.92E+00
B4 14-14.5	7440-48-4	SW6010B	9/1/2009	-14	-14.5	1.47E+01		4.34E-01	1.00E+00	2.19E+02	1.53E+04		
B4 2-2.5	7440-48-4	SW6010B	9/1/2009	-2	-2.5	7.16E+00		4.69E-01	1.00E+00	2.19E+02	1.53E+04	3.34E+00	6.92E+00
B5-1	7440-48-4	SW6010B	9/2/2009	-1	-1.5	7.79E+00		4.61E-01	1.00E+00	2.19E+02	1.53E+04	3.34E+00	6.92E+00
B5-2	7440-48-4	SW6010B	9/2/2009	-14.5	-15	7.85E+00		4.39E-01	1.00E+00	2.19E+02	1.53E+04		
B6-1	7440-48-4	SW6010B	9/2/2009	-0.5	-1	6.01E+00		4.26E-01	1.00E+00	2.19E+02	1.53E+04	4.77E+00	6.13E+00
B6-2	7440-48-4	SW6010B	9/2/2009	-14.5	-15	9.26E+00		4.39E-01	1.00E+00	2.19E+02	1.53E+04		
B7 0-1'	7440-48-4	SW6010B	11/11/2009	0	-1	2.34E+00		4.11E-01	1.00E+00	2.19E+02	1.53E+04	4.77E+00	6.13E+00
B7 14-15'	7440-48-4	SW6010B	11/11/2009	-14	-15	5.76E+00		4.23E-01	1.00E+00	2.19E+02	1.53E+04		
B8-1	7440-48-4	SW6010B	9/2/2009	-1	-1.5	3.04E+00		4.35E-01	1.00E+00	2.19E+02	1.53E+04	3.34E+00	6.92E+00
B8-2	7440-48-4	SW6010B	9/2/2009	-14	-15	5.11E+01		4.23E-01	1.00E+00	2.19E+02	1.53E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Cobalt

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B9 0-1'	7440-48-4	SW6010B	11/11/2009	0	-1	6.94E+00		4.34E-01	1.00E+00	2.19E+02	1.53E+04	4.77E+00	6.13E+00
B9 14-15'	7440-48-4	SW6010B	11/11/2009	-14	-15	4.40E+00		4.21E-01	1.00E+00	2.19E+02	1.53E+04		

Copper

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-50-8	SW6010B	8/31/2009	0	-1	5.34E+00		5.20E-01	1.50E+00	1.30E+02	1.02E+04	2.85E+00	7.47E+00
B1 0-1'	7440-50-8	SW6010B	11/11/2009	0	-1	5.79E+00		5.37E-01	1.00E+00	1.30E+02	1.02E+04	2.85E+00	7.47E+00
B1 14-15'	7440-50-8	SW6010B	11/11/2009	-14	-15	2.45E+00		4.84E-01	1.00E+00	1.30E+02	1.02E+04		
B10-1	7440-50-8	SW6010B	9/2/2009	-2	-3	3.99E+00		6.20E-01	1.50E+00	1.30E+02	1.02E+04	5.26E+00	1.18E+01
B10-2	7440-50-8	SW6010B	9/2/2009	-13	-14	2.62E+00		5.28E-01	1.50E+00	1.30E+02	1.02E+04		
B2 1-1.5	7440-50-8	SW6010B	9/1/2009	-1	-1.5	5.87E+00		4.91E-01	1.50E+00	1.30E+02	1.02E+04	5.26E+00	1.18E+01
B2 21-22.5	7440-50-8	SW6010B	9/1/2009	-21	-22.5	1.33E+01		5.81E-01	1.50E+00	1.30E+02	1.02E+04		
B3 12-13	7440-50-8	SW6010B	8/31/2009	-12	-13	2.95E+00		4.67E-01	1.50E+00	1.30E+02	1.02E+04		
B3 2-3	7440-50-8	SW6010B	8/31/2009	-2	-3	4.65E+00		5.46E-01	1.50E+00	1.30E+02	1.02E+04	5.26E+00	1.18E+01
B4 14-14.5	7440-50-8	SW6010B	9/1/2009	-14	-14.5	1.01E+01		5.25E-01	1.50E+00	1.30E+02	1.02E+04		
B4 2-2.5	7440-50-8	SW6010B	9/1/2009	-2	-2.5	6.46E+00		5.67E-01	1.50E+00	1.30E+02	1.02E+04	5.26E+00	1.18E+01
B5-1	7440-50-8	SW6010B	9/2/2009	-1	-1.5	4.89E+00		5.57E-01	1.50E+00	1.30E+02	1.02E+04	5.26E+00	1.18E+01
B5-2	7440-50-8	SW6010B	9/2/2009	-14.5	-15	1.12E+01		5.31E-01	1.50E+00	1.30E+02	1.02E+04		
B6-1	7440-50-8	SW6010B	9/2/2009	-0.5	-1	7.13E+00		5.15E-01	1.50E+00	1.30E+02	1.02E+04	2.85E+00	7.47E+00
B6-2	7440-50-8	SW6010B	9/2/2009	-14.5	-15	1.25E+01		5.31E-01	1.50E+00	1.30E+02	1.02E+04		
B7 0-1'	7440-50-8	SW6010B	11/11/2009	0	-1	3.05E+00		4.96E-01	1.00E+00	1.30E+02	1.02E+04	2.85E+00	7.47E+00
B7 14-15'	7440-50-8	SW6010B	11/11/2009	-14	-15	5.11E-01	U	5.11E-01	1.00E+00	1.30E+02	1.02E+04		
B8-1	7440-50-8	SW6010B	9/2/2009	-1	-1.5	3.37E+00		5.25E-01	1.50E+00	1.30E+02	1.02E+04	5.26E+00	1.18E+01
B8-2	7440-50-8	SW6010B	9/2/2009	-14	-15	4.63E+00		5.11E-01	1.50E+00	1.30E+02	1.02E+04		
B9 0-1'	7440-50-8	SW6010B	11/11/2009	0	-1	5.24E-01	U	5.24E-01	1.00E+00	1.30E+02	1.02E+04	2.85E+00	7.47E+00
B9 14-15'	7440-50-8	SW6010B	11/11/2009	-14	-15	3.63E+00		5.09E-01	1.00E+00	1.30E+02	1.02E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Cyanide

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	57-12-5	SW9010A	8/31/2009	0	-1	4.30E-01	U	4.30E-01	1.00E+00	2.00E+01	5.10E+03		
B1 0-1'	57-12-5	SW9010A	11/11/2009	0	-1	5.35E+00	U	5.35E+00	1.00E+01	2.00E+01	5.10E+03		
B1 14-15'	57-12-5	SW9010A	11/11/2009	-14	-15	4.33E+00	U	4.33E+00	1.00E+01	2.00E+01	5.10E+03		
B10-1	57-12-5	SW9010A	9/2/2009	-2	-3	5.13E-01	U	5.13E-01	1.00E+00	2.00E+01	5.10E+03		
B10-2	57-12-5	SW9010A	9/2/2009	-13	-14	4.37E-01	U	4.37E-01	1.00E+00	2.00E+01	5.10E+03		
B2 1-1.5	57-12-5	SW9010A	9/1/2009	-1	-1.5	4.07E-01	U	4.07E-01	1.00E+00	2.00E+01	5.10E+03		
B2 21-22.5	57-12-5	SW9010A	9/1/2009	-21	-22.5	4.81E-01	U	4.81E-01	1.00E+00	2.00E+01	5.10E+03		
B3 12-13	57-12-5	SW9010A	8/31/2009	-12	-13	3.87E-01	U	3.87E-01	1.00E+00	2.00E+01	5.10E+03		
B3 2-3	57-12-5	SW9010A	8/31/2009	-2	-3	4.52E-01	U	4.52E-01	1.00E+00	2.00E+01	5.10E+03		
B4 14-14.5	57-12-5	SW9010A	9/1/2009	-14	-14.5	4.34E-01	U	4.34E-01	1.00E+00	2.00E+01	5.10E+03		
B4 2-2.5	57-12-5	SW9010A	9/1/2009	-2	-2.5	4.69E-01	U	4.69E-01	1.00E+00	2.00E+01	5.10E+03		
B5-1	57-12-5	SW9010A	9/2/2009	-1	-1.5	4.61E-01	U	4.61E-01	1.00E+00	2.00E+01	5.10E+03		
B5-2	57-12-5	SW9010A	9/2/2009	-14.5	-15	4.39E-01	U	4.39E-01	1.00E+00	2.00E+01	5.10E+03		
B6-1	57-12-5	SW9010A	9/2/2009	-0.5	-1	4.26E-01	U	4.26E-01	1.00E+00	2.00E+01	5.10E+03		
B6-2	57-12-5	SW9010A	9/2/2009	-14.5	-15	4.39E-01	U	4.39E-01	1.00E+00	2.00E+01	5.10E+03		
B7 0-1'	57-12-5	SW9010A	11/11/2009	0	-1	4.56E+00	U	4.56E+00	1.00E+01	2.00E+01	5.10E+03		
B7 14-15'	57-12-5	SW9010A	11/11/2009	-14	-15	4.84E+00	U	4.84E+00	1.00E+01	2.00E+01	5.10E+03		
B8-1	57-12-5	SW9010A	9/2/2009	-1	-1.5	4.35E-01	U	4.35E-01	1.00E+00	2.00E+01	5.10E+03		
B8-2	57-12-5	SW9010A	9/2/2009	-14	-15	4.23E-01	U	4.23E-01	1.00E+00	2.00E+01	5.10E+03		
B9 0-1'	57-12-5	SW9010A	11/11/2009	0	-1	5.09E+00	U	5.09E+00	1.00E+01	2.00E+01	5.10E+03		
B9 14-15'	57-12-5	SW9010A	11/11/2009	-14	-15	4.79E+00	U	4.79E+00	1.00E+01	2.00E+01	5.10E+03		

Dibenz(a,h)anthracene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	53-70-3	SW8270C	8/31/2009	0	-1	9.17E-03	U	9.17E-03	3.33E-02	2.00E-02	6.26E-02		
B1 0-1'	53-70-3	SW8270C	11/11/2009	0	-1	1.11E-01	U	1.11E-01	3.30E-01	2.00E-02	6.26E-02		
B1 0-1'	53-70-3	SW8270C	11/11/2009	0	-1	9.50E-03	U	9.50E-03	3.00E-02	2.00E-02	6.26E-02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Dibenz(a,h)anthracene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 14-15'	53-70-3	SW8270C	11/11/2009	-14	-15	8.50E-03	U	8.55E-03	3.00E-02	2.00E-02	6.26E-02		
B1 14-15'	53-70-3	SW8270C	11/11/2009	-14	-15	1.00E-01	U	1.00E-01	3.30E-01	2.00E-02	6.26E-02		
B10-1	53-70-3	SW8270C	9/2/2009	-2	-3	1.09E-02	U	1.09E-02	3.33E-02	2.00E-02	6.26E-02		
B10-2	53-70-3	SW8270C	9/2/2009	-13	-14	9.32E-03	U	9.32E-03	3.33E-02	2.00E-02	6.26E-02		
B2 1-1.5	53-70-3	SW8270C	9/1/2009	-1	-1.5	8.67E-03	U	8.67E-03	3.33E-02	2.00E-02	6.26E-02		
B2 21-22.5	53-70-3	SW8270C	9/1/2009	-21	-22.5	1.03E-02	U	1.03E-02	3.33E-02	2.00E-02	6.26E-02		
B3 12-13	53-70-3	SW8270C	8/31/2009	-12	-13	8.25E-03	U	8.25E-03	3.33E-02	2.00E-02	6.26E-02		
B3 2-3	53-70-3	SW8270C	8/31/2009	-2	-3	9.65E-03	U	9.65E-03	3.33E-02	2.00E-02	6.26E-02		
B4 14-14.5	53-70-3	SW8270C	9/1/2009	-14	-14.5	9.26E-03	U	9.26E-03	3.33E-02	2.00E-02	6.26E-02		
B4 2-2.5	53-70-3	SW8270C	9/1/2009	-2	-2.5	1.00E-02	U	1.00E-02	3.33E-02	2.00E-02	6.26E-02		
B5-1	53-70-3	SW8270C	9/2/2009	-1	-1.5	9.84E-03	U	9.84E-03	3.33E-02	2.00E-02	6.26E-02		
B5-2	53-70-3	SW8270C	9/2/2009	-14.5	-15	9.37E-03	U	9.37E-03	3.33E-02	2.00E-02	6.26E-02		
B6-1	53-70-3	SW8270C	9/2/2009	-0.5	-1	9.09E-03	U	9.09E-03	3.33E-02	2.00E-02	6.26E-02		
B6-2	53-70-3	SW8270C	9/2/2009	-14.5	-15	9.37E-03	U	9.37E-03	3.33E-02	2.00E-02	6.26E-02		
B7 0-1'	53-70-3	SW8270C	11/11/2009	0	-1	8.80E-03	U	8.77E-03	3.00E-02	2.00E-02	6.26E-02		
B7 0-1'	53-70-3	SW8270C	11/11/2009	0	-1	1.03E-01	U	1.03E-01	3.30E-01	2.00E-02	6.26E-02		
B7 14-15'	53-70-3	SW8270C	11/11/2009	-14	-15	9.00E-03	U	9.04E-03	3.00E-02	2.00E-02	6.26E-02		
B7 14-15'	53-70-3	SW8270C	11/11/2009	-14	-15	1.06E-01	U	1.06E-01	3.30E-01	2.00E-02	6.26E-02		
B8-1	53-70-3	SW8270C	9/2/2009	-1	-1.5	9.27E-03	U	9.27E-03	3.33E-02	2.00E-02	6.26E-02		
B8-2	53-70-3	SW8270C	9/2/2009	-14	-15	9.02E-03	U	9.02E-03	3.33E-02	2.00E-02	6.26E-02		
B9 0-1'	53-70-3	SW8270C	11/11/2009	0	-1	1.08E-01	U	1.08E-01	3.30E-01	2.00E-02	6.26E-02		
B9 0-1'	53-70-3	SW8270C	11/11/2009	0	-1	9.30E-03	U	9.26E-03	3.00E-02	2.00E-02	6.26E-02		
B9 14-15'	53-70-3	SW8270C	11/11/2009	-14	-15	9.00E-03	U	9.00E-03	3.00E-02	2.00E-02	6.26E-02		
B9 14-15'	53-70-3	SW8270C	11/11/2009	-14	-15	1.05E-01	U	1.05E-01	3.30E-01	2.00E-02	6.26E-02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Dibenzofuran

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	132-64-9	SW8270C	8/31/2009	0	-1	1.45E-01	U	1.45E-01	3.30E-01	1.46E+01	6.20E+02		
B1 0-1'	132-64-9	SW8270C	11/11/2009	0	-1	1.50E-01	U	1.50E-01	3.30E-01	1.46E+01	6.20E+02		
B1 14-15'	132-64-9	SW8270C	11/11/2009	-14	-15	1.35E-01	U	1.35E-01	3.30E-01	1.46E+01	6.20E+02		
B10-1	132-64-9	SW8270C	9/2/2009	-2	-3	1.73E-01	U	1.73E-01	3.30E-01	1.46E+01	6.20E+02		
B10-2	132-64-9	SW8270C	9/2/2009	-13	-14	1.48E-01	U	1.48E-01	3.30E-01	1.46E+01	6.20E+02		
B2 1-1.5	132-64-9	SW8270C	9/1/2009	-1	-1.5	1.37E-01	U	1.37E-01	3.30E-01	1.46E+01	6.20E+02		
B2 21-22.5	132-64-9	SW8270C	9/1/2009	-21	-22.5	1.63E-01	U	1.63E-01	3.30E-01	1.46E+01	6.20E+02		
B3 12-13	132-64-9	SW8270C	8/31/2009	-12	-13	1.31E-01	U	1.31E-01	3.30E-01	1.46E+01	6.20E+02		
B3 2-3	132-64-9	SW8270C	8/31/2009	-2	-3	1.53E-01	U	1.53E-01	3.30E-01	1.46E+01	6.20E+02		
B4 14-14.5	132-64-9	SW8270C	9/1/2009	-14	-14.5	1.47E-01	U	1.47E-01	3.30E-01	1.46E+01	6.20E+02		
B4 2-2.5	132-64-9	SW8270C	9/1/2009	-2	-2.5	1.58E-01	U	1.58E-01	3.30E-01	1.46E+01	6.20E+02		
B5-1	132-64-9	SW8270C	9/2/2009	-1	-1.5	1.56E-01	U	1.56E-01	3.30E-01	1.46E+01	6.20E+02		
B5-2	132-64-9	SW8270C	9/2/2009	-14.5	-15	1.48E-01	U	1.48E-01	3.30E-01	1.46E+01	6.20E+02		
B6-1	132-64-9	SW8270C	9/2/2009	-0.5	-1	1.44E-01	U	1.44E-01	3.30E-01	1.46E+01	6.20E+02		
B6-2	132-64-9	SW8270C	9/2/2009	-14.5	-15	1.48E-01	U	1.48E-01	3.30E-01	1.46E+01	6.20E+02		
B7 0-1'	132-64-9	SW8270C	11/11/2009	0	-1	1.39E-01	U	1.39E-01	3.30E-01	1.46E+01	6.20E+02		
B7 14-15'	132-64-9	SW8270C	11/11/2009	-14	-15	1.43E-01	U	1.43E-01	3.30E-01	1.46E+01	6.20E+02		
B8-1	132-64-9	SW8270C	9/2/2009	-1	-1.5	1.47E-01	U	1.47E-01	3.30E-01	1.46E+01	6.20E+02		
B8-2	132-64-9	SW8270C	9/2/2009	-14	-15	1.43E-01	U	1.43E-01	3.30E-01	1.46E+01	6.20E+02		
B9 0-1'	132-64-9	SW8270C	11/11/2009	0	-1	1.46E-01	U	1.47E-01	3.30E-01	1.46E+01	6.20E+02		
B9 14-15'	132-64-9	SW8270C	11/11/2009	-14	-15	1.42E-01	U	1.42E-01	3.30E-01	1.46E+01	6.20E+02		

Dibromochloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	124-48-1	SW8260B	8/31/2009	0	-1	9.17E-04	U	9.17E-04	5.00E-03	1.01E+00	7.62E+01		
B1 0-1'	124-48-1	SW8260B	11/11/2009	0	-1	1.37E-03	U	1.37E-03	5.00E-03	1.01E+00	7.62E+01		
B1 14-15'	124-48-1	SW8260B	11/11/2009	-14	-15	1.00E-03	U	1.00E-03	5.00E-03	1.01E+00	7.62E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Dibromochloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-1	124-48-1	SW8260B	9/2/2009	-2	-3	1.09E-03	U	1.09E-03	5.00E-03	1.01E+00	7.62E+01		
B10-2	124-48-1	SW8260B	9/2/2009	-13	-14	9.32E-04	U	9.32E-04	5.00E-03	1.01E+00	7.62E+01		
B2 1-1.5	124-48-1	SW8260B	9/1/2009	-1	-1.5	8.67E-04	U	8.67E-04	5.00E-03	1.01E+00	7.62E+01		
B2 21-22.5	124-48-1	SW8260B	9/1/2009	-21	-22.5	1.03E-03	U	1.03E-03	5.00E-03	1.01E+00	7.62E+01		
B3 12-13	124-48-1	SW8260B	8/31/2009	-12	-13	8.25E-04	U	8.25E-04	5.00E-03	1.01E+00	7.62E+01		
B3 2-3	124-48-1	SW8260B	8/31/2009	-2	-3	9.64E-04	U	9.65E-04	5.00E-03	1.01E+00	7.62E+01		
B4 14.5-15	124-48-1	SW8260B	9/1/2009	-14.5	-15	9.37E-04	U	9.37E-04	5.00E-03	1.01E+00	7.62E+01		
B4 2-2.5	124-48-1	SW8260B	9/1/2009	-2	-2.5	1.00E-03	U	1.00E-03	5.00E-03	1.01E+00	7.62E+01		
B5-1	124-48-1	SW8260B	9/2/2009	-1	-1.5	9.84E-04	U	9.84E-04	5.00E-03	1.01E+00	7.62E+01		
B5-2	124-48-1	SW8260B	9/2/2009	-14.5	-15	9.37E-04	U	9.37E-04	5.00E-03	1.01E+00	7.62E+01		
B6-1	124-48-1	SW8260B	9/2/2009	-0.5	-1	9.09E-04	U	9.09E-04	5.00E-03	1.01E+00	7.62E+01		
B6-2	124-48-1	SW8260B	9/2/2009	-14.5	-15	9.37E-04	U	9.37E-04	5.00E-03	1.01E+00	7.62E+01		
B7 0-1'	124-48-1	SW8260B	11/11/2009	0	-1	1.08E-03	U	1.08E-03	5.00E-03	1.01E+00	7.62E+01		
B7 14-15'	124-48-1	SW8260B	11/11/2009	-14	-15	1.18E-03	U	1.18E-03	5.00E-03	1.01E+00	7.62E+01		
B8-1	124-48-1	SW8260B	9/2/2009	-1	-1.5	9.27E-04	U	9.27E-04	5.00E-03	1.01E+00	7.62E+01		
B8-2	124-48-1	SW8260B	9/2/2009	-14	-15	9.02E-04	U	9.02E-04	5.00E-03	1.01E+00	7.62E+01		
B8-3	124-48-1	SW8260B	9/2/2009	-8	-8.5	9.78E-04	U	9.78E-04	5.00E-03	1.01E+00	7.62E+01		
B9 0-1'	124-48-1	SW8260B	11/11/2009	0	-1	1.27E-03	U	1.27E-03	5.00E-03	1.01E+00	7.62E+01		
B9 14-15'	124-48-1	SW8260B	11/11/2009	-14	-15	1.16E-03	U	1.16E-03	5.00E-03	1.01E+00	7.62E+01		

Dibromomethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	74-95-3	SW8260B	8/31/2009	0	-1	1.56E-03	U	1.56E-03	5.00E-03	1.14E+01	1.88E+02		
B1 0-1'	74-95-3	SW8260B	11/11/2009	0	-1	2.33E-03	U	2.33E-03	5.00E-03	1.14E+01	1.88E+02		
B1 14-15'	74-95-3	SW8260B	11/11/2009	-14	-15	1.70E-03	U	1.70E-03	5.00E-03	1.14E+01	1.88E+02		
B10-1	74-95-3	SW8260B	9/2/2009	-2	-3	1.86E-03	U	1.86E-03	5.00E-03	1.14E+01	1.88E+02		
B10-2	74-95-3	SW8260B	9/2/2009	-13	-14	1.58E-03	U	1.58E-03	5.00E-03	1.14E+01	1.88E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Dibromomethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B2 1-1.5	74-95-3	SW8260B	9/1/2009	-1	-1.5	1.47E-03	U	1.47E-03	5.00E-03	1.14E+01	1.88E+02		
B2 21-22.5	74-95-3	SW8260B	9/1/2009	-21	-22.5	1.74E-03	U	1.74E-03	5.00E-03	1.14E+01	1.88E+02		
B3 12-13	74-95-3	SW8260B	8/31/2009	-12	-13	1.40E-03	U	1.40E-03	5.00E-03	1.14E+01	1.88E+02		
B3 2-3	74-95-3	SW8260B	8/31/2009	-2	-3	1.64E-03	U	1.64E-03	5.00E-03	1.14E+01	1.88E+02		
B4 14.5-15	74-95-3	SW8260B	9/1/2009	-14.5	-15	1.59E-03	U	1.59E-03	5.00E-03	1.14E+01	1.88E+02		
B4 2-2.5	74-95-3	SW8260B	9/1/2009	-2	-2.5	1.70E-03	U	1.70E-03	5.00E-03	1.14E+01	1.88E+02		
B5-1	74-95-3	SW8260B	9/2/2009	-1	-1.5	1.67E-03	U	1.67E-03	5.00E-03	1.14E+01	1.88E+02		
B5-2	74-95-3	SW8260B	9/2/2009	-14.5	-15	1.59E-03	U	1.59E-03	5.00E-03	1.14E+01	1.88E+02		
B6-1	74-95-3	SW8260B	9/2/2009	-0.5	-1	1.54E-03	U	1.54E-03	5.00E-03	1.14E+01	1.88E+02		
B6-2	74-95-3	SW8260B	9/2/2009	-14.5	-15	1.59E-03	U	1.59E-03	5.00E-03	1.14E+01	1.88E+02		
B7 0-1'	74-95-3	SW8260B	11/11/2009	0	-1	1.83E-03	U	1.83E-03	5.00E-03	1.14E+01	1.88E+02		
B7 14-15'	74-95-3	SW8260B	11/11/2009	-14	-15	2.00E-03	U	2.00E-03	5.00E-03	1.14E+01	1.88E+02		
B8-1	74-95-3	SW8260B	9/2/2009	-1	-1.5	1.57E-03	U	1.57E-03	5.00E-03	1.14E+01	1.88E+02		
B8-2	74-95-3	SW8260B	9/2/2009	-14	-15	1.53E-03	U	1.53E-03	5.00E-03	1.14E+01	1.88E+02		
B8-3	74-95-3	SW8260B	9/2/2009	-8	-8.5	1.66E-03	U	1.66E-03	5.00E-03	1.14E+01	1.88E+02		
B9 0-1'	74-95-3	SW8260B	11/11/2009	0	-1	2.16E-03	U	2.16E-03	5.00E-03	1.14E+01	1.88E+02		
B9 14-15'	74-95-3	SW8260B	11/11/2009	-14	-15	1.98E-03	U	1.98E-03	5.00E-03	1.14E+01	1.88E+02		

Dichlorodifluoromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	75-71-8	SW8260B	8/31/2009	0	-1	1.95E-03	U	1.95E-03	5.00E-03	7.30E+02	2.16E+03		
B1 0-1'	75-71-8	SW8260B	11/11/2009	0	-1	2.92E-03	U	2.92E-03	5.00E-03	7.30E+02	2.16E+03		
B1 14-15'	75-71-8	SW8260B	11/11/2009	-14	-15	2.13E-03	U	2.13E-03	5.00E-03	7.30E+02	2.16E+03		
B10-1	75-71-8	SW8260B	9/2/2009	-2	-3	2.33E-03	U	2.33E-03	5.00E-03	7.30E+02	2.16E+03		
B10-2	75-71-8	SW8260B	9/2/2009	-13	-14	1.98E-03	U	1.98E-03	5.00E-03	7.30E+02	2.16E+03		
B2 1-1.5	75-71-8	SW8260B	9/1/2009	-1	-1.5	1.85E-03	U	1.85E-03	5.00E-03	7.30E+02	2.16E+03		
B2 21-22.5	75-71-8	SW8260B	9/1/2009	-21	-22.5	2.18E-03	U	2.18E-03	5.00E-03	7.30E+02	2.16E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Dichlorodifluoromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 12-13	75-71-8	SW8260B	8/31/2009	-12	-13	1.76E-03	U	1.76E-03	5.00E-03	7.30E+02	2.16E+03		
B3 2-3	75-71-8	SW8260B	8/31/2009	-2	-3	2.05E-03	U	2.05E-03	5.00E-03	7.30E+02	2.16E+03		
B4 14.5-15	75-71-8	SW8260B	9/1/2009	-14.5	-15	2.00E-03	U	2.00E-03	5.00E-03	7.30E+02	2.16E+03		
B4 2-2.5	75-71-8	SW8260B	9/1/2009	-2	-2.5	2.13E-03	U	2.13E-03	5.00E-03	7.30E+02	2.16E+03		
B5-1	75-71-8	SW8260B	9/2/2009	-1	-1.5	2.09E-03	U	2.09E-03	5.00E-03	7.30E+02	2.16E+03		
B5-2	75-71-8	SW8260B	9/2/2009	-14.5	-15	2.00E-03	U	2.00E-03	5.00E-03	7.30E+02	2.16E+03		
B6-1	75-71-8	SW8260B	9/2/2009	-0.5	-1	1.94E-03	U	1.94E-03	5.00E-03	7.30E+02	2.16E+03		
B6-2	75-71-8	SW8260B	9/2/2009	-14.5	-15	2.00E-03	U	2.00E-03	5.00E-03	7.30E+02	2.16E+03		
B7 0-1'	75-71-8	SW8260B	11/11/2009	0	-1	2.31E-03	U	2.31E-03	5.00E-03	7.30E+02	2.16E+03		
B7 14-15'	75-71-8	SW8260B	11/11/2009	-14	-15	2.52E-03	U	2.52E-03	5.00E-03	7.30E+02	2.16E+03		
B8-1	75-71-8	SW8260B	9/2/2009	-1	-1.5	1.97E-03	U	1.97E-03	5.00E-03	7.30E+02	2.16E+03		
B8-2	75-71-8	SW8260B	9/2/2009	-14	-15	1.92E-03	U	1.92E-03	5.00E-03	7.30E+02	2.16E+03		
B8-3	75-71-8	SW8260B	9/2/2009	-8	-8.5	2.08E-03	U	2.08E-03	5.00E-03	7.30E+02	2.16E+03		
B9 0-1'	75-71-8	SW8260B	11/11/2009	0	-1	2.71E-03	U	2.71E-03	5.00E-03	7.30E+02	2.16E+03		
B9 14-15'	75-71-8	SW8260B	11/11/2009	-14	-15	2.48E-03	U	2.48E-03	5.00E-03	7.30E+02	2.16E+03		

Diethyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	84-66-2	SW8270C	8/31/2009	0	-1	1.44E-01	U	1.44E-01	3.30E-01	2.92E+03	1.24E+05		
B1 0-1'	84-66-2	SW8270C	11/11/2009	0	-1	1.49E-01	U	1.49E-01	3.30E-01	2.92E+03	1.24E+05		
B1 14-15'	84-66-2	SW8270C	11/11/2009	-14	-15	1.34E-01	U	1.34E-01	3.30E-01	2.92E+03	1.24E+05		
B10-1	84-66-2	SW8270C	9/2/2009	-2	-3	1.72E-01	U	1.72E-01	3.30E-01	2.92E+03	1.24E+05		
B10-2	84-66-2	SW8270C	9/2/2009	-13	-14	1.46E-01	U	1.46E-01	3.30E-01	2.92E+03	1.24E+05		
B2 1-1.5	84-66-2	SW8270C	9/1/2009	-1	-1.5	1.36E-01	U	1.36E-01	3.30E-01	2.92E+03	1.24E+05		
B2 21-22.5	84-66-2	SW8270C	9/1/2009	-21	-22.5	1.61E-01	U	1.61E-01	3.30E-01	2.92E+03	1.24E+05		
B3 12-13	84-66-2	SW8270C	8/31/2009	-12	-13	1.30E-01	U	1.30E-01	3.30E-01	2.92E+03	1.24E+05		
B3 2-3	84-66-2	SW8270C	8/31/2009	-2	-3	1.52E-01	U	1.52E-01	3.30E-01	2.92E+03	1.24E+05		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Diethyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 14-14.5	84-66-2	SW8270C	9/1/2009	-14	-14.5	1.45E-01	U	1.46E-01	3.30E-01	2.92E+03	1.24E+05		
B4 2-2.5	84-66-2	SW8270C	9/1/2009	-2	-2.5	1.57E-01	U	1.57E-01	3.30E-01	2.92E+03	1.24E+05		
B5-1	84-66-2	SW8270C	9/2/2009	-1	-1.5	1.55E-01	U	1.55E-01	3.30E-01	2.92E+03	1.24E+05		
B5-2	84-66-2	SW8270C	9/2/2009	-14.5	-15	1.47E-01	U	1.47E-01	3.30E-01	2.92E+03	1.24E+05		
B6-1	84-66-2	SW8270C	9/2/2009	-0.5	-1	1.43E-01	U	1.43E-01	3.30E-01	2.92E+03	1.24E+05		
B6-2	84-66-2	SW8270C	9/2/2009	-14.5	-15	1.47E-01	U	1.47E-01	3.30E-01	2.92E+03	1.24E+05		
B7 0-1'	84-66-2	SW8270C	11/11/2009	0	-1	1.38E-01	U	1.38E-01	3.30E-01	2.92E+03	1.24E+05		
B7 14-15'	84-66-2	SW8270C	11/11/2009	-14	-15	1.42E-01	U	1.42E-01	3.30E-01	2.92E+03	1.24E+05		
B8-1	84-66-2	SW8270C	9/2/2009	-1	-1.5	1.46E-01	U	1.46E-01	3.30E-01	2.92E+03	1.24E+05		
B8-2	84-66-2	SW8270C	9/2/2009	-14	-15	1.42E-01	U	1.42E-01	3.30E-01	2.92E+03	1.24E+05		
B9 0-1'	84-66-2	SW8270C	11/11/2009	0	-1	1.45E-01	U	1.45E-01	3.30E-01	2.92E+03	1.24E+05		
B9 14-15'	84-66-2	SW8270C	11/11/2009	-14	-15	1.41E-01	U	1.41E-01	3.30E-01	2.92E+03	1.24E+05		

Dimethyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	131-11-3	SW8270C	8/31/2009	0	-1	1.49E-01	U	1.49E-01	3.30E-01	2.92E+03	1.24E+05		
B1 0-1'	131-11-3	SW8270C	11/11/2009	0	-1	1.54E-01	U	1.54E-01	3.30E-01	2.92E+03	1.24E+05		
B1 14-15'	131-11-3	SW8270C	11/11/2009	-14	-15	1.39E-01	U	1.38E-01	3.30E-01	2.92E+03	1.24E+05		
B10-1	131-11-3	SW8270C	9/2/2009	-2	-3	1.77E-01	U	1.78E-01	3.30E-01	2.92E+03	1.24E+05		
B10-2	131-11-3	SW8270C	9/2/2009	-13	-14	1.51E-01	U	1.51E-01	3.30E-01	2.92E+03	1.24E+05		
B2 1-1.5	131-11-3	SW8270C	9/1/2009	-1	-1.5	1.41E-01	U	1.41E-01	3.30E-01	2.92E+03	1.24E+05		
B2 21-22.5	131-11-3	SW8270C	9/1/2009	-21	-22.5	1.66E-01	U	1.66E-01	3.30E-01	2.92E+03	1.24E+05		
B3 12-13	131-11-3	SW8270C	8/31/2009	-12	-13	1.34E-01	U	1.34E-01	3.30E-01	2.92E+03	1.24E+05		
B3 2-3	131-11-3	SW8270C	8/31/2009	-2	-3	1.57E-01	U	1.56E-01	3.30E-01	2.92E+03	1.24E+05		
B4 14-14.5	131-11-3	SW8270C	9/1/2009	-14	-14.5	1.50E-01	U	1.50E-01	3.30E-01	2.92E+03	1.24E+05		
B4 2-2.5	131-11-3	SW8270C	9/1/2009	-2	-2.5	1.62E-01	U	1.62E-01	3.30E-01	2.92E+03	1.24E+05		
B5-1	131-11-3	SW8270C	9/2/2009	-1	-1.5	1.60E-01	U	1.60E-01	3.30E-01	2.92E+03	1.24E+05		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Dimethyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B5-2	131-11-3	SW8270C	9/2/2009	-14.5	-15	1.52E-01	U	1.52E-01	3.30E-01	2.92E+03	1.24E+05		
B6-1	131-11-3	SW8270C	9/2/2009	-0.5	-1	1.47E-01	U	1.47E-01	3.30E-01	2.92E+03	1.24E+05		
B6-2	131-11-3	SW8270C	9/2/2009	-14.5	-15	1.52E-01	U	1.52E-01	3.30E-01	2.92E+03	1.24E+05		
B7 0-1'	131-11-3	SW8270C	11/11/2009	0	-1	1.42E-01	U	1.42E-01	3.30E-01	2.92E+03	1.24E+05		
B7 14-15'	131-11-3	SW8270C	11/11/2009	-14	-15	1.46E-01	U	1.46E-01	3.30E-01	2.92E+03	1.24E+05		
B8-1	131-11-3	SW8270C	9/2/2009	-1	-1.5	1.50E-01	U	1.50E-01	3.30E-01	2.92E+03	1.24E+05		
B8-2	131-11-3	SW8270C	9/2/2009	-14	-15	1.46E-01	U	1.46E-01	3.30E-01	2.92E+03	1.24E+05		
B9 0-1'	131-11-3	SW8270C	11/11/2009	0	-1	1.50E-01	U	1.50E-01	3.30E-01	2.92E+03	1.24E+05		
B9 14-15'	131-11-3	SW8270C	11/11/2009	-14	-15	1.46E-01	U	1.46E-01	3.30E-01	2.92E+03	1.24E+05		

Di-n-butyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	84-74-2	SW8270C	8/31/2009	0	-1	1.46E-01	U	1.47E-01	3.30E-01	3.65E+02	1.55E+04		
B1 0-1'	84-74-2	SW8270C	11/11/2009	0	-1	1.51E-01	U	1.51E-01	3.30E-01	3.65E+02	1.55E+04		
B1 14-15'	84-74-2	SW8270C	11/11/2009	-14	-15	1.36E-01	U	1.36E-01	3.30E-01	3.65E+02	1.55E+04		
B10-1	84-74-2	SW8270C	9/2/2009	-2	-3	1.75E-01	U	1.75E-01	3.30E-01	3.65E+02	1.55E+04		
B10-2	84-74-2	SW8270C	9/2/2009	-13	-14	1.49E-01	U	1.49E-01	3.30E-01	3.65E+02	1.55E+04		
B2 1-1.5	84-74-2	SW8270C	9/1/2009	-1	-1.5	1.39E-01	U	1.38E-01	3.30E-01	3.65E+02	1.55E+04		
B2 21-22.5	84-74-2	SW8270C	9/1/2009	-21	-22.5	1.64E-01	U	1.64E-01	3.30E-01	3.65E+02	1.55E+04		
B3 12-13	84-74-2	SW8270C	8/31/2009	-12	-13	1.32E-01	U	1.32E-01	3.30E-01	3.65E+02	1.55E+04		
B3 2-3	84-74-2	SW8270C	8/31/2009	-2	-3	1.54E-01	U	1.54E-01	3.30E-01	3.65E+02	1.55E+04		
B4 14-14.5	84-74-2	SW8270C	9/1/2009	-14	-14.5	1.48E-01	U	1.48E-01	3.30E-01	3.65E+02	1.55E+04		
B4 2-2.5	84-74-2	SW8270C	9/1/2009	-2	-2.5	1.60E-01	U	1.60E-01	3.30E-01	3.65E+02	1.55E+04		
B5-1	84-74-2	SW8270C	9/2/2009	-1	-1.5	1.57E-01	U	1.57E-01	3.30E-01	3.65E+02	1.55E+04		
B5-2	84-74-2	SW8270C	9/2/2009	-14.5	-15	1.50E-01	U	1.50E-01	3.30E-01	3.65E+02	1.55E+04		
B6-1	84-74-2	SW8270C	9/2/2009	-0.5	-1	1.45E-01	U	1.45E-01	3.30E-01	3.65E+02	1.55E+04		
B6-2	84-74-2	SW8270C	9/2/2009	-14.5	-15	1.50E-01	U	1.50E-01	3.30E-01	3.65E+02	1.55E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Di-n-butyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 0-1'	84-74-2	SW8270C	11/11/2009	0	-1	1.40E-01	U	1.40E-01	3.30E-01	3.65E+02	1.55E+04		
B7 14-15'	84-74-2	SW8270C	11/11/2009	-14	-15	1.44E-01	U	1.44E-01	3.30E-01	3.65E+02	1.55E+04		
B8-1	84-74-2	SW8270C	9/2/2009	-1	-1.5	1.48E-01	U	1.48E-01	3.30E-01	3.65E+02	1.55E+04		
B8-2	84-74-2	SW8270C	9/2/2009	-14	-15	1.44E-01	U	1.44E-01	3.30E-01	3.65E+02	1.55E+04		
B9 0-1'	84-74-2	SW8270C	11/11/2009	0	-1	1.48E-01	U	1.48E-01	3.30E-01	3.65E+02	1.55E+04		
B9 14-15'	84-74-2	SW8270C	11/11/2009	-14	-15	1.43E-01	U	1.44E-01	3.30E-01	3.65E+02	1.55E+04		

Di-n-octyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	117-84-0	SW8270C	8/31/2009	0	-1	1.94E-01	U	1.94E-01	3.30E-01	7.30E+01	3.07E+03		
B1 0-1'	117-84-0	SW8270C	11/11/2009	0	-1	2.01E-01	U	2.01E-01	3.30E-01	7.30E+01	3.07E+03		
B1 14-15'	117-84-0	SW8270C	11/11/2009	-14	-15	1.81E-01	U	1.81E-01	3.30E-01	7.30E+01	3.07E+03		
B10-1	117-84-0	SW8270C	9/2/2009	-2	-3	2.32E-01	U	2.32E-01	3.30E-01	7.30E+01	3.07E+03		
B10-2	117-84-0	SW8270C	9/2/2009	-13	-14	1.97E-01	U	1.97E-01	3.30E-01	7.30E+01	3.07E+03		
B2 1-1.5	117-84-0	SW8270C	9/1/2009	-1	-1.5	1.84E-01	U	1.84E-01	3.30E-01	7.30E+01	3.07E+03		
B2 21-22.5	117-84-0	SW8270C	9/1/2009	-21	-22.5	2.17E-01	U	2.17E-01	3.30E-01	7.30E+01	3.07E+03		
B3 12-13	117-84-0	SW8270C	8/31/2009	-12	-13	1.75E-01	U	1.75E-01	3.30E-01	7.30E+01	3.07E+03		
B3 2-3	117-84-0	SW8270C	8/31/2009	-2	-3	2.04E-01	U	2.04E-01	3.30E-01	7.30E+01	3.07E+03		
B4 14-14.5	117-84-0	SW8270C	9/1/2009	-14	-14.5	1.96E-01	U	1.96E-01	3.30E-01	7.30E+01	3.07E+03		
B4 2-2.5	117-84-0	SW8270C	9/1/2009	-2	-2.5	2.12E-01	U	2.12E-01	3.30E-01	7.30E+01	3.07E+03		
B5-1	117-84-0	SW8270C	9/2/2009	-1	-1.5	2.08E-01	U	2.08E-01	3.30E-01	7.30E+01	3.07E+03		
B5-2	117-84-0	SW8270C	9/2/2009	-14.5	-15	1.98E-01	U	1.98E-01	3.30E-01	7.30E+01	3.07E+03		
B6-1	117-84-0	SW8270C	9/2/2009	-0.5	-1	1.92E-01	U	1.92E-01	3.30E-01	7.30E+01	3.07E+03		
B6-2	117-84-0	SW8270C	9/2/2009	-14.5	-15	1.98E-01	U	1.98E-01	3.30E-01	7.30E+01	3.07E+03		
B7 0-1'	117-84-0	SW8270C	11/11/2009	0	-1	1.85E-01	U	1.85E-01	3.30E-01	7.30E+01	3.07E+03		
B7 14-15'	117-84-0	SW8270C	11/11/2009	-14	-15	1.91E-01	U	1.91E-01	3.30E-01	7.30E+01	3.07E+03		
B8-1	117-84-0	SW8270C	9/2/2009	-1	-1.5	1.96E-01	U	1.96E-01	3.30E-01	7.30E+01	3.07E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Di-n-octyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-2	117-84-0	SW8270C	9/2/2009	-14	-15	1.91E-01	U	1.91E-01	3.30E-01	7.30E+01	3.07E+03		
B9 0-1'	117-84-0	SW8270C	11/11/2009	0	-1	1.96E-01	U	1.96E-01	3.30E-01	7.30E+01	3.07E+03		
B9 14-15'	117-84-0	SW8270C	11/11/2009	-14	-15	1.90E-01	U	1.90E-01	3.30E-01	7.30E+01	3.07E+03		

Ethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	100-41-4	SW8260B	8/31/2009	0	-1	9.29E-04	U	9.29E-04	5.00E-03	7.00E+01	4.31E+03		
B1 0-1'	100-41-4	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	5.00E-03	7.00E+01	4.31E+03		
B1 14-15'	100-41-4	SW8260B	11/11/2009	-14	-15	1.01E-03	U	1.01E-03	5.00E-03	7.00E+01	4.31E+03		
B10-1	100-41-4	SW8260B	9/2/2009	-2	-3	1.11E-03	U	1.11E-03	5.00E-03	7.00E+01	4.31E+03		
B10-2	100-41-4	SW8260B	9/2/2009	-13	-14	9.43E-04	U	9.43E-04	5.00E-03	7.00E+01	4.31E+03		
B2 1-1.5	100-41-4	SW8260B	9/1/2009	-1	-1.5	8.78E-04	U	8.78E-04	5.00E-03	7.00E+01	4.31E+03		
B2 21-22.5	100-41-4	SW8260B	9/1/2009	-21	-22.5	1.04E-03	U	1.04E-03	5.00E-03	7.00E+01	4.31E+03		
B3 12-13	100-41-4	SW8260B	8/31/2009	-12	-13	8.35E-04	U	8.36E-04	5.00E-03	7.00E+01	4.31E+03		
B3 2-3	100-41-4	SW8260B	8/31/2009	-2	-3	9.77E-04	U	9.77E-04	5.00E-03	7.00E+01	4.31E+03		
B4 14.5-15	100-41-4	SW8260B	9/1/2009	-14.5	-15	9.49E-04	U	9.49E-04	5.00E-03	7.00E+01	4.31E+03		
B4 2-2.5	100-41-4	SW8260B	9/1/2009	-2	-2.5	1.01E-03	U	1.01E-03	5.00E-03	7.00E+01	4.31E+03		
B5-1	100-41-4	SW8260B	9/2/2009	-1	-1.5	9.96E-04	U	9.96E-04	5.00E-03	7.00E+01	4.31E+03		
B5-2	100-41-4	SW8260B	9/2/2009	-14.5	-15	9.49E-04	U	9.49E-04	5.00E-03	7.00E+01	4.31E+03		
B6-1	100-41-4	SW8260B	9/2/2009	-0.5	-1	9.20E-04	U	9.21E-04	5.00E-03	7.00E+01	4.31E+03		
B6-2	100-41-4	SW8260B	9/2/2009	-14.5	-15	9.49E-04	U	9.49E-04	5.00E-03	7.00E+01	4.31E+03		
B7 0-1'	100-41-4	SW8260B	11/11/2009	0	-1	1.09E-03	U	1.09E-03	5.00E-03	7.00E+01	4.31E+03		
B7 14-15'	100-41-4	SW8260B	11/11/2009	-14	-15	1.20E-03	U	1.20E-03	5.00E-03	7.00E+01	4.31E+03		
B8-1	100-41-4	SW8260B	9/2/2009	-1	-1.5	9.39E-04	U	9.39E-04	5.00E-03	7.00E+01	4.31E+03		
B8-2	100-41-4	SW8260B	9/2/2009	-14	-15	9.13E-04	U	9.13E-04	5.00E-03	7.00E+01	4.31E+03		
B8-3	100-41-4	SW8260B	9/2/2009	-8	-8.5	9.90E-04	U	9.90E-04	5.00E-03	7.00E+01	4.31E+03		
B9 0-1'	100-41-4	SW8260B	11/11/2009	0	-1	1.29E-03	U	1.29E-03	5.00E-03	7.00E+01	4.31E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Ethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B9 14-15'	100-41-4	SW8260B	11/11/2009	-14	-15	1.18E-03	U	1.18E-03	5.00E-03	7.00E+01	4.31E+03		

Fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	206-44-0	SW8270C	8/31/2009	0	-1	1.01E-01	U	1.01E-01	3.30E-01	1.46E+02	5.48E+03		
B1 0-1'	206-44-0	SW8270C	11/11/2009	0	-1	1.04E-01	U	1.04E-01	3.30E-01	1.46E+02	5.48E+03		
B1 14-15'	206-44-0	SW8270C	11/11/2009	-14	-15	9.38E-02	U	9.38E-02	3.30E-01	1.46E+02	5.48E+03		
B10-1	206-44-0	SW8270C	9/2/2009	-2	-3	1.20E-01	U	1.20E-01	3.30E-01	1.46E+02	5.48E+03		
B10-2	206-44-0	SW8270C	9/2/2009	-13	-14	1.02E-01	U	1.02E-01	3.30E-01	1.46E+02	5.48E+03		
B2 1-1.5	206-44-0	SW8270C	9/1/2009	-1	-1.5	9.53E-02	U	9.53E-02	3.30E-01	1.46E+02	5.48E+03		
B2 21-22.5	206-44-0	SW8270C	9/1/2009	-21	-22.5	1.13E-01	U	1.13E-01	3.30E-01	1.46E+02	5.48E+03		
B3 12-13	206-44-0	SW8270C	8/31/2009	-12	-13	9.07E-02	U	9.07E-02	3.30E-01	1.46E+02	5.48E+03		
B3 2-3	206-44-0	SW8270C	8/31/2009	-2	-3	1.06E-01	U	1.06E-01	3.30E-01	1.46E+02	5.48E+03		
B4 14-14.5	206-44-0	SW8270C	9/1/2009	-14	-14.5	1.02E-01	U	1.02E-01	3.30E-01	1.46E+02	5.48E+03		
B4 2-2.5	206-44-0	SW8270C	9/1/2009	-2	-2.5	1.10E-01	U	1.10E-01	3.30E-01	1.46E+02	5.48E+03		
B5-1	206-44-0	SW8270C	9/2/2009	-1	-1.5	1.08E-01	U	1.08E-01	3.30E-01	1.46E+02	5.48E+03		
B5-2	206-44-0	SW8270C	9/2/2009	-14.5	-15	1.03E-01	U	1.03E-01	3.30E-01	1.46E+02	5.48E+03		
B6-1	206-44-0	SW8270C	9/2/2009	-0.5	-1	9.99E-02	U	9.99E-02	3.30E-01	1.46E+02	5.48E+03		
B6-2	206-44-0	SW8270C	9/2/2009	-14.5	-15	1.03E-01	U	1.03E-01	3.30E-01	1.46E+02	5.48E+03		
B7 0-1'	206-44-0	SW8270C	11/11/2009	0	-1	9.62E-02	U	9.62E-02	3.30E-01	1.46E+02	5.48E+03		
B7 14-15'	206-44-0	SW8270C	11/11/2009	-14	-15	9.92E-02	U	9.92E-02	3.30E-01	1.46E+02	5.48E+03		
B8-1	206-44-0	SW8270C	9/2/2009	-1	-1.5	1.02E-01	U	1.02E-01	3.30E-01	1.46E+02	5.48E+03		
B8-2	206-44-0	SW8270C	9/2/2009	-14	-15	9.91E-02	U	9.91E-02	3.30E-01	1.46E+02	5.48E+03		
B9 0-1'	206-44-0	SW8270C	11/11/2009	0	-1	1.02E-01	U	1.02E-01	3.30E-01	1.46E+02	5.48E+03		
B9 14-15'	206-44-0	SW8270C	11/11/2009	-14	-15	9.87E-02	U	9.87E-02	3.30E-01	1.46E+02	5.48E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Fluorene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	86-73-7	SW8270C	8/31/2009	0	-1	1.46E-01	U	1.47E-01	3.30E-01	1.46E+02	5.48E+03		
B1 0-1'	86-73-7	SW8270C	11/11/2009	0	-1	1.51E-01	U	1.51E-01	3.30E-01	1.46E+02	5.48E+03		
B1 14-15'	86-73-7	SW8270C	11/11/2009	-14	-15	1.36E-01	U	1.36E-01	3.30E-01	1.46E+02	5.48E+03		
B10-1	86-73-7	SW8270C	9/2/2009	-2	-3	1.75E-01	U	1.75E-01	3.30E-01	1.46E+02	5.48E+03		
B10-2	86-73-7	SW8270C	9/2/2009	-13	-14	1.49E-01	U	1.49E-01	3.30E-01	1.46E+02	5.48E+03		
B2 1-1.5	86-73-7	SW8270C	9/1/2009	-1	-1.5	1.39E-01	U	1.38E-01	3.30E-01	1.46E+02	5.48E+03		
B2 21-22.5	86-73-7	SW8270C	9/1/2009	-21	-22.5	1.64E-01	U	1.64E-01	3.30E-01	1.46E+02	5.48E+03		
B3 12-13	86-73-7	SW8270C	8/31/2009	-12	-13	1.32E-01	U	1.32E-01	3.30E-01	1.46E+02	5.48E+03		
B3 2-3	86-73-7	SW8270C	8/31/2009	-2	-3	1.54E-01	U	1.54E-01	3.30E-01	1.46E+02	5.48E+03		
B4 14-14.5	86-73-7	SW8270C	9/1/2009	-14	-14.5	1.48E-01	U	1.48E-01	3.30E-01	1.46E+02	5.48E+03		
B4 2-2.5	86-73-7	SW8270C	9/1/2009	-2	-2.5	1.60E-01	U	1.60E-01	3.30E-01	1.46E+02	5.48E+03		
B5-1	86-73-7	SW8270C	9/2/2009	-1	-1.5	1.57E-01	U	1.57E-01	3.30E-01	1.46E+02	5.48E+03		
B5-2	86-73-7	SW8270C	9/2/2009	-14.5	-15	1.50E-01	U	1.50E-01	3.30E-01	1.46E+02	5.48E+03		
B6-1	86-73-7	SW8270C	9/2/2009	-0.5	-1	1.45E-01	U	1.45E-01	3.30E-01	1.46E+02	5.48E+03		
B6-2	86-73-7	SW8270C	9/2/2009	-14.5	-15	1.50E-01	U	1.50E-01	3.30E-01	1.46E+02	5.48E+03		
B7 0-1'	86-73-7	SW8270C	11/11/2009	0	-1	1.40E-01	U	1.40E-01	3.30E-01	1.46E+02	5.48E+03		
B7 14-15'	86-73-7	SW8270C	11/11/2009	-14	-15	1.44E-01	U	1.44E-01	3.30E-01	1.46E+02	5.48E+03		
B8-1	86-73-7	SW8270C	9/2/2009	-1	-1.5	1.48E-01	U	1.48E-01	3.30E-01	1.46E+02	5.48E+03		
B8-2	86-73-7	SW8270C	9/2/2009	-14	-15	1.44E-01	U	1.44E-01	3.30E-01	1.46E+02	5.48E+03		
B9 0-1'	86-73-7	SW8270C	11/11/2009	0	-1	1.48E-01	U	1.48E-01	3.30E-01	1.46E+02	5.48E+03		
B9 14-15'	86-73-7	SW8270C	11/11/2009	-14	-15	1.43E-01	U	1.44E-01	3.30E-01	1.46E+02	5.48E+03		

Hexachlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	118-74-1	SW8270C	8/31/2009	0	-1	8.72E-02	U	8.72E-02	3.30E-01	1.00E-01	2.51E-01		
B1 0-1	118-74-1	SW8270C	8/31/2009	0	-1	1.51E-02	U	1.51E-02	3.33E-02	1.00E-01	2.51E-01		
B1 0-1'	118-74-1	SW8270C	11/11/2009	0	-1	1.56E-02	U	1.56E-02	3.30E-02	1.00E-01	2.51E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Hexachlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 14-15'	118-74-1	SW8270C	11/11/2009	-14	-15	1.41E-02	U	1.41E-02	3.30E-02	1.00E-01	2.51E-01		
B10-1	118-74-1	SW8270C	9/2/2009	-2	-3	1.80E-02	U	1.80E-02	3.33E-02	1.00E-01	2.51E-01		
B10-1	118-74-1	SW8270C	9/2/2009	-2	-3	1.04E-01	U	1.04E-01	3.30E-01	1.00E-01	2.51E-01		
B10-2	118-74-1	SW8270C	9/2/2009	-13	-14	8.85E-02	U	8.85E-02	3.30E-01	1.00E-01	2.51E-01		
B10-2	118-74-1	SW8270C	9/2/2009	-13	-14	1.53E-02	U	1.53E-02	3.33E-02	1.00E-01	2.51E-01		
B2 1-1.5	118-74-1	SW8270C	9/1/2009	-1	-1.5	8.24E-02	U	8.24E-02	3.30E-01	1.00E-01	2.51E-01		
B2 1-1.5	118-74-1	SW8270C	9/1/2009	-1	-1.5	1.43E-02	U	1.43E-02	3.33E-02	1.00E-01	2.51E-01		
B2 21-22.5	118-74-1	SW8270C	9/1/2009	-21	-22.5	1.69E-02	U	1.69E-02	3.33E-02	1.00E-01	2.51E-01		
B2 21-22.5	118-74-1	SW8270C	9/1/2009	-21	-22.5	9.75E-02	U	9.75E-02	3.30E-01	1.00E-01	2.51E-01		
B3 12-13	118-74-1	SW8270C	8/31/2009	-12	-13	1.36E-02	U	1.36E-02	3.33E-02	1.00E-01	2.51E-01		
B3 12-13	118-74-1	SW8270C	8/31/2009	-12	-13	7.84E-02	U	7.84E-02	3.30E-01	1.00E-01	2.51E-01		
B3 2-3	118-74-1	SW8270C	8/31/2009	-2	-3	9.17E-02	U	9.17E-02	3.30E-01	1.00E-01	2.51E-01		
B3 2-3	118-74-1	SW8270C	8/31/2009	-2	-3	1.59E-02	U	1.59E-02	3.33E-02	1.00E-01	2.51E-01		
B4 14-14.5	118-74-1	SW8270C	9/1/2009	-14	-14.5	8.80E-02	U	8.80E-02	3.30E-01	1.00E-01	2.51E-01		
B4 14-14.5	118-74-1	SW8270C	9/1/2009	-14	-14.5	1.53E-02	U	1.53E-02	3.33E-02	1.00E-01	2.51E-01		
B4 2-2.5	118-74-1	SW8270C	9/1/2009	-2	-2.5	9.51E-02	U	9.51E-02	3.30E-01	1.00E-01	2.51E-01		
B4 2-2.5	118-74-1	SW8270C	9/1/2009	-2	-2.5	1.65E-02	U	1.65E-02	3.33E-02	1.00E-01	2.51E-01		
B5-1	118-74-1	SW8270C	9/2/2009	-1	-1.5	9.35E-02	U	9.35E-02	3.30E-01	1.00E-01	2.51E-01		
B5-1	118-74-1	SW8270C	9/2/2009	-1	-1.5	1.62E-02	U	1.62E-02	3.33E-02	1.00E-01	2.51E-01		
B5-2	118-74-1	SW8270C	9/2/2009	-14.5	-15	1.54E-02	U	1.54E-02	3.33E-02	1.00E-01	2.51E-01		
B5-2	118-74-1	SW8270C	9/2/2009	-14.5	-15	8.91E-02	U	8.91E-02	3.30E-01	1.00E-01	2.51E-01		
B6-1	118-74-1	SW8270C	9/2/2009	-0.5	-1	1.50E-02	U	1.50E-02	3.33E-02	1.00E-01	2.51E-01		
B6-1	118-74-1	SW8270C	9/2/2009	-0.5	-1	8.64E-02	U	8.64E-02	3.30E-01	1.00E-01	2.51E-01		
B6-2	118-74-1	SW8270C	9/2/2009	-14.5	-15	8.91E-02	U	8.91E-02	3.30E-01	1.00E-01	2.51E-01		
B6-2	118-74-1	SW8270C	9/2/2009	-14.5	-15	1.54E-02	U	1.54E-02	3.33E-02	1.00E-01	2.51E-01		
B7 0-1'	118-74-1	SW8270C	11/11/2009	0	-1	1.44E-02	U	1.44E-02	3.30E-02	1.00E-01	2.51E-01		
B7 14-15'	118-74-1	SW8270C	11/11/2009	-14	-15	1.49E-02	U	1.49E-02	3.30E-02	1.00E-01	2.51E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Hexachlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-1	118-74-1	SW8270C	9/2/2009	-1	-1.5	8.81E-02	U	8.81E-02	3.30E-01	1.00E-01	2.51E-01		
B8-1	118-74-1	SW8270C	9/2/2009	-1	-1.5	1.53E-02	U	1.53E-02	3.33E-02	1.00E-01	2.51E-01		
B8-2	118-74-1	SW8270C	9/2/2009	-14	-15	8.57E-02	U	8.57E-02	3.30E-01	1.00E-01	2.51E-01		
B8-2	118-74-1	SW8270C	9/2/2009	-14	-15	1.49E-02	U	1.49E-02	3.33E-02	1.00E-01	2.51E-01		
B9 0-1'	118-74-1	SW8270C	11/11/2009	0	-1	1.52E-02	U	1.52E-02	3.30E-02	1.00E-01	2.51E-01		
B9 14-15'	118-74-1	SW8270C	11/11/2009	-14	-15	1.48E-02	U	1.48E-02	3.30E-02	1.00E-01	2.51E-01		

Hexachlorobutadiene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	87-68-3	SW8260B	8/31/2009	0	-1	2.19E-03	U	2.19E-03	5.00E-03	7.30E-01	1.58E+01		
B1 0-1	87-68-3	SW8270C	8/31/2009	0	-1	1.29E-01	U	1.29E-01	3.30E-01	7.30E-01	1.58E+01		
B1 0-1'	87-68-3	SW8270C	11/11/2009	0	-1	1.33E-01	U	1.33E-01	3.30E-01	7.30E-01	1.58E+01		
B1 0-1'	87-68-3	SW8260B	11/11/2009	0	-1	3.27E-03	U	3.27E-03	5.00E-03	7.30E-01	1.58E+01		
B1 14-15'	87-68-3	SW8260B	11/11/2009	-14	-15	2.38E-03	U	2.38E-03	5.00E-03	7.30E-01	1.58E+01		
B1 14-15'	87-68-3	SW8270C	11/11/2009	-14	-15	1.20E-01	U	1.20E-01	3.30E-01	7.30E-01	1.58E+01		
B10-1	87-68-3	SW8270C	9/2/2009	-2	-3	1.54E-01	U	1.54E-01	3.30E-01	7.30E-01	1.58E+01		
B10-1	87-68-3	SW8260B	9/2/2009	-2	-3	2.61E-03	U	2.61E-03	5.00E-03	7.30E-01	1.58E+01		
B10-2	87-68-3	SW8260B	9/2/2009	-13	-14	2.22E-03	U	2.22E-03	5.00E-03	7.30E-01	1.58E+01		
B10-2	87-68-3	SW8270C	9/2/2009	-13	-14	1.31E-01	U	1.31E-01	3.30E-01	7.30E-01	1.58E+01		
B2 1-1.5	87-68-3	SW8270C	9/1/2009	-1	-1.5	1.22E-01	U	1.22E-01	3.30E-01	7.30E-01	1.58E+01		
B2 1-1.5	87-68-3	SW8260B	9/1/2009	-1	-1.5	2.07E-03	U	2.07E-03	5.00E-03	7.30E-01	1.58E+01		
B2 21-22.5	87-68-3	SW8270C	9/1/2009	-21	-22.5	1.44E-01	U	1.44E-01	3.30E-01	7.30E-01	1.58E+01		
B2 21-22.5	87-68-3	SW8260B	9/1/2009	-21	-22.5	2.44E-03	U	2.44E-03	5.00E-03	7.30E-01	1.58E+01		
B3 12-13	87-68-3	SW8270C	8/31/2009	-12	-13	1.16E-01	U	1.16E-01	3.30E-01	7.30E-01	1.58E+01		
B3 12-13	87-68-3	SW8260B	8/31/2009	-12	-13	1.97E-03	U	1.97E-03	5.00E-03	7.30E-01	1.58E+01		
B3 2-3	87-68-3	SW8270C	8/31/2009	-2	-3	1.36E-01	U	1.36E-01	3.30E-01	7.30E-01	1.58E+01		
B3 2-3	87-68-3	SW8260B	8/31/2009	-2	-3	2.30E-03	U	2.30E-03	5.00E-03	7.30E-01	1.58E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Hexachlorobutadiene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 14.5-15	87-68-3	SW8260B	9/1/2009	-14.5	-15	2.23E-03	U	2.23E-03	5.00E-03	7.30E-01	1.58E+01		
B4 14-14.5	87-68-3	SW8270C	9/1/2009	-14	-14.5	1.30E-01	U	1.30E-01	3.30E-01	7.30E-01	1.58E+01		
B4 2-2.5	87-68-3	SW8270C	9/1/2009	-2	-2.5	1.41E-01	U	1.41E-01	3.30E-01	7.30E-01	1.58E+01		
B4 2-2.5	87-68-3	SW8260B	9/1/2009	-2	-2.5	2.38E-03	U	2.38E-03	5.00E-03	7.30E-01	1.58E+01		
B5-1	87-68-3	SW8270C	9/2/2009	-1	-1.5	1.38E-01	U	1.38E-01	3.30E-01	7.30E-01	1.58E+01		
B5-1	87-68-3	SW8260B	9/2/2009	-1	-1.5	2.34E-03	U	2.34E-03	5.00E-03	7.30E-01	1.58E+01		
B5-2	87-68-3	SW8270C	9/2/2009	-14.5	-15	1.32E-01	U	1.32E-01	3.30E-01	7.30E-01	1.58E+01		
B5-2	87-68-3	SW8260B	9/2/2009	-14.5	-15	2.23E-03	U	2.23E-03	5.00E-03	7.30E-01	1.58E+01		
B6-1	87-68-3	SW8270C	9/2/2009	-0.5	-1	1.28E-01	U	1.28E-01	3.30E-01	7.30E-01	1.58E+01		
B6-1	87-68-3	SW8260B	9/2/2009	-0.5	-1	2.17E-03	U	2.17E-03	5.00E-03	7.30E-01	1.58E+01		
B6-2	87-68-3	SW8260B	9/2/2009	-14.5	-15	2.23E-03	U	2.23E-03	5.00E-03	7.30E-01	1.58E+01		
B6-2	87-68-3	SW8270C	9/2/2009	-14.5	-15	1.32E-01	U	1.32E-01	3.30E-01	7.30E-01	1.58E+01		
B7 0-1'	87-68-3	SW8270C	11/11/2009	0	-1	1.23E-01	U	1.23E-01	3.30E-01	7.30E-01	1.58E+01		
B7 0-1'	87-68-3	SW8260B	11/11/2009	0	-1	2.58E-03	U	2.58E-03	5.00E-03	7.30E-01	1.58E+01		
B7 14-15'	87-68-3	SW8270C	11/11/2009	-14	-15	1.27E-01	U	1.27E-01	3.30E-01	7.30E-01	1.58E+01		
B7 14-15'	87-68-3	SW8260B	11/11/2009	-14	-15	2.81E-03	U	2.81E-03	5.00E-03	7.30E-01	1.58E+01		
B8-1	87-68-3	SW8260B	9/2/2009	-1	-1.5	2.21E-03	U	2.21E-03	5.00E-03	7.30E-01	1.58E+01		
B8-1	87-68-3	SW8270C	9/2/2009	-1	-1.5	1.30E-01	U	1.30E-01	3.30E-01	7.30E-01	1.58E+01		
B8-2	87-68-3	SW8270C	9/2/2009	-14	-15	1.27E-01	U	1.27E-01	3.30E-01	7.30E-01	1.58E+01		
B8-2	87-68-3	SW8260B	9/2/2009	-14	-15	2.15E-03	U	2.15E-03	5.00E-03	7.30E-01	1.58E+01		
B8-3	87-68-3	SW8260B	9/2/2009	-8	-8.5	2.33E-03	U	2.33E-03	5.00E-03	7.30E-01	1.58E+01		
B9 0-1'	87-68-3	SW8270C	11/11/2009	0	-1	1.30E-01	U	1.30E-01	3.30E-01	7.30E-01	1.58E+01		
B9 0-1'	87-68-3	SW8260B	11/11/2009	0	-1	3.02E-03	U	3.02E-03	5.00E-03	7.30E-01	1.58E+01		
B9 14-15'	87-68-3	SW8270C	11/11/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	7.30E-01	1.58E+01		
B9 14-15'	87-68-3	SW8260B	11/11/2009	-14	-15	2.78E-03	U	2.78E-03	5.00E-03	7.30E-01	1.58E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Hexachlorocyclopentadiene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	77-47-4	SW8270C	8/31/2009	0	-1	1.43E-01	U	1.43E-01	3.30E-01	5.00E+00	1.02E+01		
B1 0-1'	77-47-4	SW8270C	11/11/2009	0	-1	1.48E-01	U	1.48E-01	3.30E-01	5.00E+00	1.02E+01		
B1 14-15'	77-47-4	SW8270C	11/11/2009	-14	-15	1.33E-01	U	1.33E-01	3.30E-01	5.00E+00	1.02E+01		
B10-1	77-47-4	SW8270C	9/2/2009	-2	-3	1.71E-01	U	1.71E-01	3.30E-01	5.00E+00	1.02E+01		
B10-2	77-47-4	SW8270C	9/2/2009	-13	-14	1.45E-01	U	1.45E-01	3.30E-01	5.00E+00	1.02E+01		
B2 1-1.5	77-47-4	SW8270C	9/1/2009	-1	-1.5	1.35E-01	U	1.35E-01	3.30E-01	5.00E+00	1.02E+01		
B2 21-22.5	77-47-4	SW8270C	9/1/2009	-21	-22.5	1.60E-01	U	1.60E-01	3.30E-01	5.00E+00	1.02E+01		
B3 12-13	77-47-4	SW8270C	8/31/2009	-12	-13	1.29E-01	U	1.29E-01	3.30E-01	5.00E+00	1.02E+01		
B3 2-3	77-47-4	SW8270C	8/31/2009	-2	-3	1.50E-01	U	1.50E-01	3.30E-01	5.00E+00	1.02E+01		
B4 14-14.5	77-47-4	SW8270C	9/1/2009	-14	-14.5	1.44E-01	U	1.44E-01	3.30E-01	5.00E+00	1.02E+01		
B4 2-2.5	77-47-4	SW8270C	9/1/2009	-2	-2.5	1.56E-01	U	1.56E-01	3.30E-01	5.00E+00	1.02E+01		
B5-1	77-47-4	SW8270C	9/2/2009	-1	-1.5	1.53E-01	U	1.53E-01	3.30E-01	5.00E+00	1.02E+01		
B5-2	77-47-4	SW8270C	9/2/2009	-14.5	-15	1.46E-01	U	1.46E-01	3.30E-01	5.00E+00	1.02E+01		
B6-1	77-47-4	SW8270C	9/2/2009	-0.5	-1	1.42E-01	U	1.42E-01	3.30E-01	5.00E+00	1.02E+01		
B6-2	77-47-4	SW8270C	9/2/2009	-14.5	-15	1.46E-01	U	1.46E-01	3.30E-01	5.00E+00	1.02E+01		
B7 0-1'	77-47-4	SW8270C	11/11/2009	0	-1	1.37E-01	U	1.37E-01	3.30E-01	5.00E+00	1.02E+01		
B7 14-15'	77-47-4	SW8270C	11/11/2009	-14	-15	1.41E-01	U	1.41E-01	3.30E-01	5.00E+00	1.02E+01		
B8-1	77-47-4	SW8270C	9/2/2009	-1	-1.5	1.44E-01	U	1.45E-01	3.30E-01	5.00E+00	1.02E+01		
B8-2	77-47-4	SW8270C	9/2/2009	-14	-15	1.41E-01	U	1.41E-01	3.30E-01	5.00E+00	1.02E+01		
B9 0-1'	77-47-4	SW8270C	11/11/2009	0	-1	1.44E-01	U	1.44E-01	3.30E-01	5.00E+00	1.02E+01		
B9 14-15'	77-47-4	SW8270C	11/11/2009	-14	-15	1.40E-01	U	1.40E-01	3.30E-01	5.00E+00	1.02E+01		

Hexachloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	67-72-1	SW8270C	8/31/2009	0	-1	1.03E-01	U	1.03E-01	3.30E-01	3.65E+00	1.55E+02		
B1 0-1'	67-72-1	SW8270C	11/11/2009	0	-1	1.07E-01	U	1.07E-01	3.30E-01	3.65E+00	1.55E+02		
B1 14-15'	67-72-1	SW8270C	11/11/2009	-14	-15	9.61E-02	U	9.61E-02	3.30E-01	3.65E+00	1.55E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Hexachloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-1	67-72-1	SW8270C	9/2/2009	-2	-3	1.23E-01	U	1.23E-01	3.30E-01	3.65E+00	1.55E+02		
B10-2	67-72-1	SW8270C	9/2/2009	-13	-14	1.05E-01	U	1.05E-01	3.30E-01	3.65E+00	1.55E+02		
B2 1-1.5	67-72-1	SW8270C	9/1/2009	-1	-1.5	9.76E-02	U	9.76E-02	3.30E-01	3.65E+00	1.55E+02		
B2 21-22.5	67-72-1	SW8270C	9/1/2009	-21	-22.5	1.16E-01	U	1.15E-01	3.30E-01	3.65E+00	1.55E+02		
B3 12-13	67-72-1	SW8270C	8/31/2009	-12	-13	9.29E-02	U	9.29E-02	3.30E-01	3.65E+00	1.55E+02		
B3 2-3	67-72-1	SW8270C	8/31/2009	-2	-3	1.09E-01	U	1.09E-01	3.30E-01	3.65E+00	1.55E+02		
B4 14-14.5	67-72-1	SW8270C	9/1/2009	-14	-14.5	1.04E-01	U	1.04E-01	3.30E-01	3.65E+00	1.55E+02		
B4 2-2.5	67-72-1	SW8270C	9/1/2009	-2	-2.5	1.13E-01	U	1.13E-01	3.30E-01	3.65E+00	1.55E+02		
B5-1	67-72-1	SW8270C	9/2/2009	-1	-1.5	1.11E-01	U	1.11E-01	3.30E-01	3.65E+00	1.55E+02		
B5-2	67-72-1	SW8270C	9/2/2009	-14.5	-15	1.06E-01	U	1.05E-01	3.30E-01	3.65E+00	1.55E+02		
B6-1	67-72-1	SW8270C	9/2/2009	-0.5	-1	1.02E-01	U	1.02E-01	3.30E-01	3.65E+00	1.55E+02		
B6-2	67-72-1	SW8270C	9/2/2009	-14.5	-15	1.06E-01	U	1.05E-01	3.30E-01	3.65E+00	1.55E+02		
B7 0-1'	67-72-1	SW8270C	11/11/2009	0	-1	9.86E-02	U	9.86E-02	3.30E-01	3.65E+00	1.55E+02		
B7 14-15'	67-72-1	SW8270C	11/11/2009	-14	-15	1.02E-01	U	1.02E-01	3.30E-01	3.65E+00	1.55E+02		
B8-1	67-72-1	SW8270C	9/2/2009	-1	-1.5	1.04E-01	U	1.04E-01	3.30E-01	3.65E+00	1.55E+02		
B8-2	67-72-1	SW8270C	9/2/2009	-14	-15	1.02E-01	U	1.01E-01	3.30E-01	3.65E+00	1.55E+02		
B9 0-1'	67-72-1	SW8270C	11/11/2009	0	-1	1.04E-01	U	1.04E-01	3.30E-01	3.65E+00	1.55E+02		
B9 14-15'	67-72-1	SW8270C	11/11/2009	-14	-15	1.01E-01	U	1.01E-01	3.30E-01	3.65E+00	1.55E+02		

HMX

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 1-2 FT	2691-41-0	SW-846 83	8/31/2009	-1	-2	9.35E-01	U	9.35E-01	1.00E-01	1.83E+02	2.23E+03		
B1 13-14	2691-41-0	SW-846 83	8/31/2009	-13	-14	9.35E-01	U	9.35E-01	1.00E-01	1.83E+02	2.23E+03		
B10 1 - 2	2691-41-0	SW-846 83	9/2/2009	-1	-2	1.11E+00	U	1.11E+00	1.00E-01	1.83E+02	2.23E+03		
B10 11.5 - 1	2691-41-0	SW-846 83	9/2/2009	-11.5	-12	1.15E+00	U	1.15E+00	1.00E-01	1.83E+02	2.23E+03		
B2 0.5-1.0	2691-41-0	SW-846 83	9/1/2009	-0.5	-1	9.35E-01	U	9.35E-01	1.00E-01	1.83E+02	2.23E+03		
B2 21-21.5	2691-41-0	SW-846 83	9/1/2009	-21	-21.5	9.35E-01	U	9.35E-01	1.00E-01	1.83E+02	2.23E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

HMX

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 0-1	2691-41-0	SW-846 83	8/31/2009	0	-1	9.35E-01	U	9.35E-01	1.00E-01	1.83E+02	2.23E+03		
B3 14-15	2691-41-0	SW-846 83	8/31/2009	-14	-15	9.35E-01	U	9.35E-01	1.00E-01	1.83E+02	2.23E+03		
B4 13-14	2691-41-0	SW-846 83	9/1/2009	-13	-14	9.35E-01	U	9.35E-01	1.00E-01	1.83E+02	2.23E+03		
B4 3-3.5	2691-41-0	SW-846 83	9/1/2009	-3	-3.5	9.35E-01	U	9.35E-01	1.00E-01	1.83E+02	2.23E+03		
B5 14 - 14.	2691-41-0	SW-846 83	9/2/2009	-14	-14.5	1.10E+00	U	1.10E+00	1.00E-01	1.83E+02	2.23E+03		
B5 0.5 - 1 M	2691-41-0	SW-846 83	9/2/2009	-0.5	-1	1.14E+00	U	1.14E+00	1.00E-01	1.83E+02	2.23E+03		
B6 1 - 1.5	2691-41-0	SW-846 83	9/2/2009	-1	-1.5	1.10E+00	U	1.10E+00	1.00E-01	1.83E+02	2.23E+03		
B6 14 - 14.5	2691-41-0	SW-846 83	9/2/2009	-14	-14.5	1.08E+00	U	1.08E+00	1.00E-01	1.83E+02	2.23E+03		
B7 0-1 FT	2691-41-0	SW-846 83	8/31/2009	0	-1	9.35E-01	U	9.35E-01	1.00E-01	1.83E+02	2.23E+03		
B7 14-15	2691-41-0	SW-846 83	8/31/2009	-14	-15	9.35E-01	U	9.35E-01	1.00E-01	1.83E+02	2.23E+03		
B8 13 - 14	2691-41-0	SW-846 83	9/2/2009	-13	-14	1.06E+00	U	1.06E+00	1.00E-01	1.83E+02	2.23E+03		
B8 2.75 - 3	2691-41-0	SW-846 83	9/2/2009	-2.75	-3	1.17E+00	U	1.17E+00	1.00E-01	1.83E+02	2.23E+03		
B9 14-15	2691-41-0	SW-846 83	8/31/2009	-14	-15	9.35E-01	U	9.35E-01	1.00E-01	1.83E+02	2.23E+03		
B9-0-2 FT	2691-41-0	SW-846 83	8/31/2009	0	-2	9.35E-01	U	9.35E-01	1.00E-01	1.83E+02	2.23E+03		

Indeno(1,2,3-cd)pyrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	193-39-5	SW8270C	8/31/2009	0	-1	1.84E-02	U	1.84E-02	3.33E-02	1.73E+02	6.26E-01		
B1 0-1	193-39-5	SW8270C	8/31/2009	0	-1	1.12E-01	U	1.12E-01	3.30E-01	1.73E+02	6.26E-01		
B1 0-1'	193-39-5	SW8270C	11/11/2009	0	-1	1.16E-01	U	1.16E-01	3.30E-01	1.73E+02	6.26E-01		
B1 0-1'	193-39-5	SW8270C	11/11/2009	0	-1	2.40E-02	U	2.40E-02	3.00E-02	1.73E+02	6.26E-01		
B1 14-15'	193-39-5	SW8270C	11/11/2009	-14	-15	2.16E-02	U	2.16E-02	3.00E-02	1.73E+02	6.26E-01		
B1 14-15'	193-39-5	SW8270C	11/11/2009	-14	-15	1.04E-01	U	1.04E-01	3.30E-01	1.73E+02	6.26E-01		
B10-1	193-39-5	SW8270C	9/2/2009	-2	-3	2.19E-02	U	2.19E-02	3.33E-02	1.73E+02	6.26E-01		
B10-1	193-39-5	SW8270C	9/2/2009	-2	-3	1.34E-01	U	1.34E-01	3.30E-01	1.73E+02	6.26E-01		
B10-2	193-39-5	SW8270C	9/2/2009	-13	-14	1.14E-01	U	1.14E-01	3.30E-01	1.73E+02	6.26E-01		
B10-2	193-39-5	SW8270C	9/2/2009	-13	-14	1.87E-02	U	1.87E-02	3.33E-02	1.73E+02	6.26E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Indeno(1,2,3-cd)pyrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B2 1-1.5	193-39-5	SW8270C	9/1/2009	-1	-1.5	1.74E-02	U	1.74E-02	3.33E-02	1.73E+02	6.26E-01		
B2 1-1.5	193-39-5	SW8270C	9/1/2009	-1	-1.5	1.06E-01	U	1.06E-01	3.30E-01	1.73E+02	6.26E-01		
B2 21-22.5	193-39-5	SW8270C	9/1/2009	-21	-22.5	1.25E-01	U	1.25E-01	3.30E-01	1.73E+02	6.26E-01		
B2 21-22.5	193-39-5	SW8270C	9/1/2009	-21	-22.5	2.05E-02	U	2.05E-02	3.33E-02	1.73E+02	6.26E-01		
B3 12-13	193-39-5	SW8270C	8/31/2009	-12	-13	1.01E-01	U	1.01E-01	3.30E-01	1.73E+02	6.26E-01		
B3 12-13	193-39-5	SW8270C	8/31/2009	-12	-13	1.65E-02	U	1.65E-02	3.33E-02	1.73E+02	6.26E-01		
B3 2-3	193-39-5	SW8270C	8/31/2009	-2	-3	1.93E-02	U	1.93E-02	3.33E-02	1.73E+02	6.26E-01		
B3 2-3	193-39-5	SW8270C	8/31/2009	-2	-3	1.18E-01	U	1.18E-01	3.30E-01	1.73E+02	6.26E-01		
B4 14-14.5	193-39-5	SW8270C	9/1/2009	-14	-14.5	1.13E-01	U	1.13E-01	3.30E-01	1.73E+02	6.26E-01		
B4 14-14.5	193-39-5	SW8270C	9/1/2009	-14	-14.5	1.85E-02	U	1.85E-02	3.33E-02	1.73E+02	6.26E-01		
B4 2-2.5	193-39-5	SW8270C	9/1/2009	-2	-2.5	1.22E-01	U	1.22E-01	3.30E-01	1.73E+02	6.26E-01		
B4 2-2.5	193-39-5	SW8270C	9/1/2009	-2	-2.5	2.00E-02	U	2.00E-02	3.33E-02	1.73E+02	6.26E-01		
B5-1	193-39-5	SW8270C	9/2/2009	-1	-1.5	1.97E-02	U	1.97E-02	3.33E-02	1.73E+02	6.26E-01		
B5-1	193-39-5	SW8270C	9/2/2009	-1	-1.5	1.20E-01	U	1.20E-01	3.30E-01	1.73E+02	6.26E-01		
B5-2	193-39-5	SW8270C	9/2/2009	-14.5	-15	1.88E-02	U	1.88E-02	3.33E-02	1.73E+02	6.26E-01		
B5-2	193-39-5	SW8270C	9/2/2009	-14.5	-15	1.14E-01	U	1.14E-01	3.30E-01	1.73E+02	6.26E-01		
B6-1	193-39-5	SW8270C	9/2/2009	-0.5	-1	1.82E-02	U	1.82E-02	3.33E-02	1.73E+02	6.26E-01		
B6-1	193-39-5	SW8270C	9/2/2009	-0.5	-1	1.11E-01	U	1.11E-01	3.30E-01	1.73E+02	6.26E-01		
B6-2	193-39-5	SW8270C	9/2/2009	-14.5	-15	1.14E-01	U	1.14E-01	3.30E-01	1.73E+02	6.26E-01		
B6-2	193-39-5	SW8270C	9/2/2009	-14.5	-15	1.88E-02	U	1.88E-02	3.33E-02	1.73E+02	6.26E-01		
B7 0-1'	193-39-5	SW8270C	11/11/2009	0	-1	2.22E-02	U	2.22E-02	3.00E-02	1.73E+02	6.26E-01		
B7 0-1'	193-39-5	SW8270C	11/11/2009	0	-1	1.07E-01	U	1.07E-01	3.30E-01	1.73E+02	6.26E-01		
B7 14-15'	193-39-5	SW8270C	11/11/2009	-14	-15	1.10E-01	U	1.10E-01	3.30E-01	1.73E+02	6.26E-01		
B7 14-15'	193-39-5	SW8270C	11/11/2009	-14	-15	2.29E-02	U	2.29E-02	3.00E-02	1.73E+02	6.26E-01		
B8-1	193-39-5	SW8270C	9/2/2009	-1	-1.5	1.86E-02	U	1.86E-02	3.33E-02	1.73E+02	6.26E-01		
B8-1	193-39-5	SW8270C	9/2/2009	-1	-1.5	1.13E-01	U	1.13E-01	3.30E-01	1.73E+02	6.26E-01		
B8-2	193-39-5	SW8270C	9/2/2009	-14	-15	1.81E-02	U	1.81E-02	3.33E-02	1.73E+02	6.26E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Indeno(1,2,3-cd)pyrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-2	193-39-5	SW8270C	9/2/2009	-14	-15	1.10E-01	U	1.10E-01	3.30E-01	1.73E+02	6.26E-01		
B9 0-1'	193-39-5	SW8270C	11/11/2009	0	-1	1.13E-01	U	1.13E-01	3.30E-01	1.73E+02	6.26E-01		
B9 0-1'	193-39-5	SW8270C	11/11/2009	0	-1	2.34E-02	U	2.34E-02	3.00E-02	1.73E+02	6.26E-01		
B9 14-15'	193-39-5	SW8270C	11/11/2009	-14	-15	1.10E-01	U	1.10E-01	3.30E-01	1.73E+02	6.26E-01		
B9 14-15'	193-39-5	SW8270C	11/11/2009	-14	-15	2.28E-02	U	2.28E-02	3.00E-02	1.73E+02	6.26E-01		

Iodomethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	74-88-4	SW8260B	8/31/2009	0	-1	1.20E-03	U	1.20E-03	5.00E-03	5.11E+00	1.77E+01		
B1 0-1'	74-88-4	SW8260B	11/11/2009	0	-1	1.79E-03	U	1.79E-03	5.00E-03	5.11E+00	1.77E+01		
B1 14-15'	74-88-4	SW8260B	11/11/2009	-14	-15	1.30E-03	U	1.30E-03	5.00E-03	5.11E+00	1.77E+01		
B10-1	74-88-4	SW8260B	9/2/2009	-2	-3	1.43E-03	U	1.43E-03	5.00E-03	5.11E+00	1.77E+01		
B10-2	74-88-4	SW8260B	9/2/2009	-13	-14	1.22E-03	U	1.22E-03	5.00E-03	5.11E+00	1.77E+01		
B2 1-1.5	74-88-4	SW8260B	9/1/2009	-1	-1.5	1.13E-03	U	1.13E-03	5.00E-03	5.11E+00	1.77E+01		
B2 21-22.5	74-88-4	SW8260B	9/1/2009	-21	-22.5	1.34E-03	U	1.34E-03	5.00E-03	5.11E+00	1.77E+01		
B3 12-13	74-88-4	SW8260B	8/31/2009	-12	-13	1.08E-03	U	1.08E-03	5.00E-03	5.11E+00	1.77E+01		
B3 2-3	74-88-4	SW8260B	8/31/2009	-2	-3	1.26E-03	U	1.26E-03	5.00E-03	5.11E+00	1.77E+01		
B4 14.5-15	74-88-4	SW8260B	9/1/2009	-14.5	-15	1.22E-03	U	1.22E-03	5.00E-03	5.11E+00	1.77E+01		
B4 2-2.5	74-88-4	SW8260B	9/1/2009	-2	-2.5	1.31E-03	U	1.31E-03	5.00E-03	5.11E+00	1.77E+01		
B5-1	74-88-4	SW8260B	9/2/2009	-1	-1.5	1.28E-03	U	1.28E-03	5.00E-03	5.11E+00	1.77E+01		
B5-2	74-88-4	SW8260B	9/2/2009	-14.5	-15	1.22E-03	U	1.22E-03	5.00E-03	5.11E+00	1.77E+01		
B6-1	74-88-4	SW8260B	9/2/2009	-0.5	-1	1.19E-03	U	1.19E-03	5.00E-03	5.11E+00	1.77E+01		
B6-2	74-88-4	SW8260B	9/2/2009	-14.5	-15	1.22E-03	U	1.22E-03	5.00E-03	5.11E+00	1.77E+01		
B7 0-1'	74-88-4	SW8260B	11/11/2009	0	-1	1.41E-03	U	1.41E-03	5.00E-03	5.11E+00	1.77E+01		
B7 14-15'	74-88-4	SW8260B	11/11/2009	-14	-15	1.54E-03	U	1.54E-03	5.00E-03	5.11E+00	1.77E+01		
B8-1	74-88-4	SW8260B	9/2/2009	-1	-1.5	1.21E-03	U	1.21E-03	5.00E-03	5.11E+00	1.77E+01		
B8-2	74-88-4	SW8260B	9/2/2009	-14	-15	1.18E-03	U	1.18E-03	5.00E-03	5.11E+00	1.77E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Iodomethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-3	74-88-4	SW8260B	9/2/2009	-8	-8.5	1.28E-03	U	1.28E-03	5.00E-03	5.11E+00	1.77E+01		
B9 0-1'	74-88-4	SW8260B	11/11/2009	0	-1	1.66E-03	U	1.66E-03	5.00E-03	5.11E+00	1.77E+01		
B9 14-15'	74-88-4	SW8260B	11/11/2009	-14	-15	1.51E-03	U	1.51E-03	5.00E-03	5.11E+00	1.77E+01		

Iron

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7439-89-6	SW6010B	8/31/2009	0	-1	2.09E+04		1.14E+00	5.00E+00			9.14E+03	2.38E+04
B1 0-1'	7439-89-6	SW6010B	11/11/2009	0	-1	2.62E+04		1.19E+00	2.00E+00			9.14E+03	2.38E+04
B1 14-15'	7439-89-6	SW6010B	11/11/2009	-14	-15	8.82E+03		1.07E+00	2.00E+00				
B10-1	7439-89-6	SW6010B	9/2/2009	-2	-3	2.40E+04		1.36E+00	5.00E+00			1.72E+04	4.10E+04
B10-2	7439-89-6	SW6010B	9/2/2009	-13	-14	7.57E+03		1.16E+00	5.00E+00				
B2 1-1.5	7439-89-6	SW6010B	9/1/2009	-1	-1.5	2.79E+04		1.08E+00	5.00E+00			1.72E+04	4.10E+04
B2 21-22.5	7439-89-6	SW6010B	9/1/2009	-21	-22.5	1.91E+04		1.28E+00	5.00E+00				
B3 12-13	7439-89-6	SW6010B	8/31/2009	-12	-13	1.09E+04		1.03E+00	5.00E+00				
B3 2-3	7439-89-6	SW6010B	8/31/2009	-2	-3	2.89E+04		1.20E+00	5.00E+00			1.72E+04	4.10E+04
B4 14-14.5	7439-89-6	SW6010B	9/1/2009	-14	-14.5	2.99E+04		1.15E+00	5.00E+00				
B4 2-2.5	7439-89-6	SW6010B	9/1/2009	-2	-2.5	2.93E+04		1.24E+00	5.00E+00			1.72E+04	4.10E+04
B5-1	7439-89-6	SW6010B	9/2/2009	-1	-1.5	2.60E+04		1.22E+00	5.00E+00			1.72E+04	4.10E+04
B5-2	7439-89-6	SW6010B	9/2/2009	-14.5	-15	3.08E+04		1.17E+00	5.00E+00				
B6-1	7439-89-6	SW6010B	9/2/2009	-0.5	-1	1.59E+04		1.13E+00	5.00E+00			9.14E+03	2.38E+04
B6-2	7439-89-6	SW6010B	9/2/2009	-14.5	-15	3.77E+04		1.17E+00	5.00E+00				
B7 0-1'	7439-89-6	SW6010B	11/11/2009	0	-1	1.17E+04		1.09E+00	2.00E+00			9.14E+03	2.38E+04
B7 14-15'	7439-89-6	SW6010B	11/11/2009	-14	-15	9.27E+03		1.13E+00	2.00E+00				
B8-1	7439-89-6	SW6010B	9/2/2009	-1	-1.5	2.46E+04		1.15E+00	5.00E+00			1.72E+04	4.10E+04
B8-2	7439-89-6	SW6010B	9/2/2009	-14	-15	1.84E+04		1.12E+00	5.00E+00				
B9 0-1'	7439-89-6	SW6010B	11/11/2009	0	-1	1.42E+04		1.16E+00	2.00E+00			9.14E+03	2.38E+04
B9 14-15'	7439-89-6	SW6010B	11/11/2009	-14	-15	1.16E+04		1.12E+00	2.00E+00				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Isophorone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	78-59-1	SW8270C	8/31/2009	0	-1	1.06E-01	U	1.06E-01	3.30E-01	8.96E+01	5.15E+03		
B1 0-1'	78-59-1	SW8270C	11/11/2009	0	-1	1.10E-01	U	1.10E-01	3.30E-01	8.96E+01	5.15E+03		
B1 14-15'	78-59-1	SW8270C	11/11/2009	-14	-15	9.89E-02	U	9.89E-02	3.30E-01	8.96E+01	5.15E+03		
B10-1	78-59-1	SW8270C	9/2/2009	-2	-3	1.27E-01	U	1.27E-01	3.30E-01	8.96E+01	5.15E+03		
B10-2	78-59-1	SW8270C	9/2/2009	-13	-14	1.08E-01	U	1.08E-01	3.30E-01	8.96E+01	5.15E+03		
B2 1-1.5	78-59-1	SW8270C	9/1/2009	-1	-1.5	1.00E-01	U	1.00E-01	3.30E-01	8.96E+01	5.15E+03		
B2 21-22.5	78-59-1	SW8270C	9/1/2009	-21	-22.5	1.19E-01	U	1.19E-01	3.30E-01	8.96E+01	5.15E+03		
B3 12-13	78-59-1	SW8270C	8/31/2009	-12	-13	9.56E-02	U	9.56E-02	3.30E-01	8.96E+01	5.15E+03		
B3 2-3	78-59-1	SW8270C	8/31/2009	-2	-3	1.12E-01	U	1.12E-01	3.30E-01	8.96E+01	5.15E+03		
B4 14-14.5	78-59-1	SW8270C	9/1/2009	-14	-14.5	1.07E-01	U	1.07E-01	3.30E-01	8.96E+01	5.15E+03		
B4 2-2.5	78-59-1	SW8270C	9/1/2009	-2	-2.5	1.16E-01	U	1.16E-01	3.30E-01	8.96E+01	5.15E+03		
B5-1	78-59-1	SW8270C	9/2/2009	-1	-1.5	1.14E-01	U	1.14E-01	3.30E-01	8.96E+01	5.15E+03		
B5-2	78-59-1	SW8270C	9/2/2009	-14.5	-15	1.09E-01	U	1.09E-01	3.30E-01	8.96E+01	5.15E+03		
B6-1	78-59-1	SW8270C	9/2/2009	-0.5	-1	1.05E-01	U	1.05E-01	3.30E-01	8.96E+01	5.15E+03		
B6-2	78-59-1	SW8270C	9/2/2009	-14.5	-15	1.09E-01	U	1.09E-01	3.30E-01	8.96E+01	5.15E+03		
B7 0-1'	78-59-1	SW8270C	11/11/2009	0	-1	1.02E-01	U	1.01E-01	3.30E-01	8.96E+01	5.15E+03		
B7 14-15'	78-59-1	SW8270C	11/11/2009	-14	-15	1.05E-01	U	1.05E-01	3.30E-01	8.96E+01	5.15E+03		
B8-1	78-59-1	SW8270C	9/2/2009	-1	-1.5	1.07E-01	U	1.07E-01	3.30E-01	8.96E+01	5.15E+03		
B8-2	78-59-1	SW8270C	9/2/2009	-14	-15	1.05E-01	U	1.04E-01	3.30E-01	8.96E+01	5.15E+03		
B9 0-1'	78-59-1	SW8270C	11/11/2009	0	-1	1.07E-01	U	1.07E-01	3.30E-01	8.96E+01	5.15E+03		
B9 14-15'	78-59-1	SW8270C	11/11/2009	-14	-15	1.04E-01	U	1.04E-01	3.30E-01	8.96E+01	5.15E+03		

Isopropylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	98-82-8	SW8260B	8/31/2009	0	-1	1.22E-03	U	1.22E-03	5.00E-03	3.65E+02	5.38E+03		
B1 0-1'	98-82-8	SW8260B	11/11/2009	0	-1	1.81E-03	U	1.81E-03	5.00E-03	3.65E+02	5.38E+03		
B1 14-15'	98-82-8	SW8260B	11/11/2009	-14	-15	1.33E-03	U	1.33E-03	5.00E-03	3.65E+02	5.38E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Isopropylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-1	98-82-8	SW8260B	9/2/2009	-2	-3	1.46E-03	U	1.46E-03	5.00E-03	3.65E+02	5.38E+03		
B10-2	98-82-8	SW8260B	9/2/2009	-13	-14	1.24E-03	U	1.24E-03	5.00E-03	3.65E+02	5.38E+03		
B2 1-1.5	98-82-8	SW8260B	9/1/2009	-1	-1.5	1.15E-03	U	1.15E-03	5.00E-03	3.65E+02	5.38E+03		
B2 21-22.5	98-82-8	SW8260B	9/1/2009	-21	-22.5	1.37E-03	U	1.37E-03	5.00E-03	3.65E+02	5.38E+03		
B3 12-13	98-82-8	SW8260B	8/31/2009	-12	-13	1.10E-03	U	1.10E-03	5.00E-03	3.65E+02	5.38E+03		
B3 2-3	98-82-8	SW8260B	8/31/2009	-2	-3	1.28E-03	U	1.28E-03	5.00E-03	3.65E+02	5.38E+03		
B4 14.5-15	98-82-8	SW8260B	9/1/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	3.65E+02	5.38E+03		
B4 2-2.5	98-82-8	SW8260B	9/1/2009	-2	-2.5	1.33E-03	U	1.33E-03	5.00E-03	3.65E+02	5.38E+03		
B5-1	98-82-8	SW8260B	9/2/2009	-1	-1.5	1.31E-03	U	1.31E-03	5.00E-03	3.65E+02	5.38E+03		
B5-2	98-82-8	SW8260B	9/2/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	3.65E+02	5.38E+03		
B6-1	98-82-8	SW8260B	9/2/2009	-0.5	-1	1.21E-03	U	1.21E-03	5.00E-03	3.65E+02	5.38E+03		
B6-2	98-82-8	SW8260B	9/2/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	3.65E+02	5.38E+03		
B7 0-1'	98-82-8	SW8260B	11/11/2009	0	-1	1.44E-03	U	1.44E-03	5.00E-03	3.65E+02	5.38E+03		
B7 14-15'	98-82-8	SW8260B	11/11/2009	-14	-15	1.57E-03	U	1.57E-03	5.00E-03	3.65E+02	5.38E+03		
B8-1	98-82-8	SW8260B	9/2/2009	-1	-1.5	1.23E-03	U	1.23E-03	5.00E-03	3.65E+02	5.38E+03		
B8-2	98-82-8	SW8260B	9/2/2009	-14	-15	1.20E-03	U	1.20E-03	5.00E-03	3.65E+02	5.38E+03		
B8-3	98-82-8	SW8260B	9/2/2009	-8	-8.5	1.30E-03	U	1.30E-03	5.00E-03	3.65E+02	5.38E+03		
B9 0-1'	98-82-8	SW8260B	11/11/2009	0	-1	1.69E-03	U	1.69E-03	5.00E-03	3.65E+02	5.38E+03		
B9 14-15'	98-82-8	SW8260B	11/11/2009	-14	-15	1.56E-03	U	1.56E-03	5.00E-03	3.65E+02	5.38E+03		

Lead

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7439-92-1	SW6010B	8/31/2009	0	-1	1.36E+01		5.23E-01	1.00E+00	5.49E+02	5.00E+02	1.37E+01	2.76E+01
B1 0-1'	7439-92-1	SW6010B	11/11/2009	0	-1	1.25E+01		5.41E-01	1.50E+00	5.49E+02	5.00E+02	1.37E+01	2.76E+01
B1 14-15'	7439-92-1	SW6010B	11/11/2009	-14	-15	5.59E+00		4.87E-01	1.50E+00	5.49E+02	5.00E+02		
B10-1	7439-92-1	SW6010B	9/2/2009	-2	-3	1.00E+01		6.24E-01	1.00E+00	5.49E+02	5.00E+02	8.32E+00	1.29E+01
B10-2	7439-92-1	SW6010B	9/2/2009	-13	-14	1.03E+01		5.31E-01	1.00E+00	5.49E+02	5.00E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Lead

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B2 1-1.5	7439-92-1	SW6010B	9/1/2009	-1	-1.5	9.82E+00		4.95E-01	1.00E+00	5.49E+02	5.00E+02	8.32E+00	1.29E+01
B2 21-22.5	7439-92-1	SW6010B	9/1/2009	-21	-22.5	3.17E+01		5.85E-01	1.00E+00	5.49E+02	5.00E+02		
B3 12-13	7439-92-1	SW6010B	8/31/2009	-12	-13	4.70E+00		4.71E-01	1.00E+00	5.49E+02	5.00E+02		
B3 2-3	7439-92-1	SW6010B	8/31/2009	-2	-3	1.37E+01		5.50E-01	1.00E+00	5.49E+02	5.00E+02	8.32E+00	1.29E+01
B4 14-14.5	7439-92-1	SW6010B	9/1/2009	-14	-14.5	8.72E+00		5.28E-01	1.00E+00	5.49E+02	5.00E+02		
B4 2-2.5	7439-92-1	SW6010B	9/1/2009	-2	-2.5	1.60E+01		5.70E-01	1.00E+00	5.49E+02	5.00E+02	8.32E+00	1.29E+01
B5-1	7439-92-1	SW6010B	9/2/2009	-1	-1.5	1.31E+01		5.61E-01	1.00E+00	5.49E+02	5.00E+02	8.32E+00	1.29E+01
B5-2	7439-92-1	SW6010B	9/2/2009	-14.5	-15	4.28E+00		5.34E-01	1.00E+00	5.49E+02	5.00E+02		
B6-1	7439-92-1	SW6010B	9/2/2009	-0.5	-1	1.14E+01		5.18E-01	1.00E+00	5.49E+02	5.00E+02	1.37E+01	2.76E+01
B6-2	7439-92-1	SW6010B	9/2/2009	-14.5	-15	8.84E+00		5.34E-01	1.00E+00	5.49E+02	5.00E+02		
B7 0-1'	7439-92-1	SW6010B	11/11/2009	0	-1	8.27E+00		5.00E-01	1.50E+00	5.49E+02	5.00E+02	1.37E+01	2.76E+01
B7 14-15'	7439-92-1	SW6010B	11/11/2009	-14	-15	1.85E+01		5.15E-01	1.50E+00	5.49E+02	5.00E+02		
B8-1	7439-92-1	SW6010B	9/2/2009	-1	-1.5	1.00E+01		5.29E-01	1.00E+00	5.49E+02	5.00E+02	8.32E+00	1.29E+01
B8-2	7439-92-1	SW6010B	9/2/2009	-14	-15	2.13E+01		5.14E-01	1.00E+00	5.49E+02	5.00E+02		
B9 0-1'	7439-92-1	SW6010B	11/11/2009	0	-1	8.78E+00		5.28E-01	1.50E+00	5.49E+02	5.00E+02	1.37E+01	2.76E+01
B9 14-15'	7439-92-1	SW6010B	11/11/2009	-14	-15	7.36E+00		5.13E-01	1.50E+00	5.49E+02	5.00E+02		

m,p-Xylene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	108-38-3	SW8260B	8/31/2009	0	-1	1.17E-03	U	1.17E-03	1.00E-02	1.00E+03	2.32E+03		
B1 0-1'	179601-23-	SW8260B	11/11/2009	0	-1	1.74E-03	U	1.74E-03	1.00E-02				
B1 14-15'	179601-23-	SW8260B	11/11/2009	-14	-15	1.28E-03	U	1.28E-03	1.00E-02				
B10-1	108-38-3	SW8260B	9/2/2009	-2	-3	1.40E-03	U	1.40E-03	1.00E-02	1.00E+03	2.32E+03		
B10-2	108-38-3	SW8260B	9/2/2009	-13	-14	1.19E-03	U	1.19E-03	1.00E-02	1.00E+03	2.32E+03		
B2 1-1.5	108-38-3	SW8260B	9/1/2009	-1	-1.5	1.11E-03	U	1.11E-03	1.00E-02	1.00E+03	2.32E+03		
B2 21-22.5	108-38-3	SW8260B	9/1/2009	-21	-22.5	1.31E-03	U	1.31E-03	1.00E-02	1.00E+03	2.32E+03		
B3 12-13	108-38-3	SW8260B	8/31/2009	-12	-13	1.06E-03	U	1.06E-03	1.00E-02	1.00E+03	2.32E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

m,p-Xylene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 2-3	108-38-3	SW8260B	8/31/2009	-2	-3	1.23E-03	U	1.23E-03	1.00E-02	1.00E+03	2.32E+03		
B4 14.5-15	108-38-3	SW8260B	9/1/2009	-14.5	-15	1.20E-03	U	1.20E-03	1.00E-02	1.00E+03	2.32E+03		
B4 2-2.5	108-38-3	SW8260B	9/1/2009	-2	-2.5	1.28E-03	U	1.28E-03	1.00E-02	1.00E+03	2.32E+03		
B5-1	108-38-3	SW8260B	9/2/2009	-1	-1.5	1.26E-03	U	1.26E-03	1.00E-02	1.00E+03	2.32E+03		
B5-2	108-38-3	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	1.00E-02	1.00E+03	2.32E+03		
B6-1	108-38-3	SW8260B	9/2/2009	-0.5	-1	1.16E-03	U	1.16E-03	1.00E-02	1.00E+03	2.32E+03		
B6-2	108-38-3	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	1.00E-02	1.00E+03	2.32E+03		
B7 0-1'	179601-23-	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	1.00E-02				
B7 14-15'	179601-23-	SW8260B	11/11/2009	-14	-15	1.52E-03	U	1.52E-03	1.00E-02				
B8-1	108-38-3	SW8260B	9/2/2009	-1	-1.5	1.19E-03	U	1.19E-03	1.00E-02	1.00E+03	2.32E+03		
B8-2	108-38-3	SW8260B	9/2/2009	-14	-15	1.15E-03	U	1.15E-03	1.00E-02	1.00E+03	2.32E+03		
B8-3	108-38-3	SW8260B	9/2/2009	-8	-8.5	1.25E-03	U	1.25E-03	1.00E-02	1.00E+03	2.32E+03		
B9 0-1'	179601-23-	SW8260B	11/11/2009	0	-1	1.62E-03	U	1.62E-03	1.00E-02				
B9 14-15'	179601-23-	SW8260B	11/11/2009	-14	-15	1.49E-03	U	1.49E-03	1.00E-02				

Magnesium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7439-95-4	SW6010B	8/31/2009	0	-1	8.69E+02		2.16E-01	1.00E+00			2.98E+02	7.18E+02
B1 0-1'	7439-95-4	SW6010B	11/11/2009	0	-1	1.57E+03		1.42E+00	5.00E+00			2.98E+02	7.18E+02
B1 14-15'	7439-95-4	SW6010B	11/11/2009	-14	-15	1.18E+03		1.28E+00	5.00E+00				
B10-1	7439-95-4	SW6010B	9/2/2009	-2	-3	1.70E+03		2.58E-01	1.00E+00			8.04E+02	2.18E+03
B10-2	7439-95-4	SW6010B	9/2/2009	-13	-14	1.29E+03		2.20E-01	1.00E+00				
B2 1-1.5	7439-95-4	SW6010B	9/1/2009	-1	-1.5	1.95E+03		2.04E-01	1.00E+00			8.04E+02	2.18E+03
B2 21-22.5	7439-95-4	SW6010B	9/1/2009	-21	-22.5	3.42E+03		2.42E-01	1.00E+00				
B3 12-13	7439-95-4	SW6010B	8/31/2009	-12	-13	2.18E+03		1.94E-01	1.00E+00				
B3 2-3	7439-95-4	SW6010B	8/31/2009	-2	-3	2.14E+03		2.27E-01	1.00E+00			8.04E+02	2.18E+03
B4 14-14.5	7439-95-4	SW6010B	9/1/2009	-14	-14.5	3.19E+03		2.18E-01	1.00E+00				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Magnesium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 2-2.5	7439-95-4	SW6010B	9/1/2009	-2	-2.5	3.99E+03		2.36E-01	1.00E+00			8.04E+02	2.18E+03
B5-1	7439-95-4	SW6010B	9/2/2009	-1	-1.5	4.25E+03		2.32E-01	1.00E+00			8.04E+02	2.18E+03
B5-2	7439-95-4	SW6010B	9/2/2009	-14.5	-15	4.48E+03		2.21E-01	1.00E+00				
B6-1	7439-95-4	SW6010B	9/2/2009	-0.5	-1	1.76E+03		2.14E-01	1.00E+00			2.98E+02	7.18E+02
B6-2	7439-95-4	SW6010B	9/2/2009	-14.5	-15	2.86E+03		2.21E-01	1.00E+00				
B7 0-1'	7439-95-4	SW6010B	11/11/2009	0	-1	1.12E+03		1.31E+00	5.00E+00			2.98E+02	7.18E+02
B7 14-15'	7439-95-4	SW6010B	11/11/2009	-14	-15	4.37E+02		1.35E+00	5.00E+00				
B8-1	7439-95-4	SW6010B	9/2/2009	-1	-1.5	8.68E+02		2.19E-01	1.00E+00			8.04E+02	2.18E+03
B8-2	7439-95-4	SW6010B	9/2/2009	-14	-15	1.16E+03		2.13E-01	1.00E+00				
B9 0-1'	7439-95-4	SW6010B	11/11/2009	0	-1	5.66E+02		1.38E+00	5.00E+00			2.98E+02	7.18E+02
B9 14-15'	7439-95-4	SW6010B	11/11/2009	-14	-15	1.21E+03		1.34E+00	5.00E+00				

Manganese

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7439-96-5	SW6010B	8/31/2009	0	-1	1.79E+02		6.22E+00	1.50E+01	1.71E+03	1.68E+04	5.66E+02	1.82E+03
B1 0-1'	7439-96-5	SW6010B	11/11/2009	0	-1	2.85E+01		1.50E+00	5.00E+00	1.71E+03	1.68E+04	5.66E+02	1.82E+03
B1 14-15'	7439-96-5	SW6010B	11/11/2009	-14	-15	2.92E+01		1.35E+00	5.00E+00	1.71E+03	1.68E+04		
B10-1	7439-96-5	SW6010B	9/2/2009	-2	-3	3.62E+01		7.42E+00	1.50E+01	1.71E+03	1.68E+04	6.84E+01	3.44E+02
B10-2	7439-96-5	SW6010B	9/2/2009	-13	-14	4.64E+02		6.32E+00	1.50E+01	1.71E+03	1.68E+04		
B2 1-1.5	7439-96-5	SW6010B	9/1/2009	-1	-1.5	2.40E+01		5.88E+00	1.50E+01	1.71E+03	1.68E+04	6.84E+01	3.44E+02
B2 21-22.5	7439-96-5	SW6010B	9/1/2009	-21	-22.5	5.34E+02		6.96E+00	1.50E+01	1.71E+03	1.68E+04		
B3 12-13	7439-96-5	SW6010B	8/31/2009	-12	-13	8.01E+01		5.59E+00	1.50E+01	1.71E+03	1.68E+04		
B3 2-3	7439-96-5	SW6010B	8/31/2009	-2	-3	2.49E+01		6.54E+00	1.50E+01	1.71E+03	1.68E+04	6.84E+01	3.44E+02
B4 14-14.5	7439-96-5	SW6010B	9/1/2009	-14	-14.5	2.57E+02		6.28E+00	1.50E+01	1.71E+03	1.68E+04		
B4 2-2.5	7439-96-5	SW6010B	9/1/2009	-2	-2.5	2.66E+01		6.78E+00	1.50E+01	1.71E+03	1.68E+04	6.84E+01	3.44E+02
B5-1	7439-96-5	SW6010B	9/2/2009	-1	-1.5	2.33E+01		6.67E+00	1.50E+01	1.71E+03	1.68E+04	6.84E+01	3.44E+02
B5-2	7439-96-5	SW6010B	9/2/2009	-14.5	-15	1.17E+02		6.35E+00	1.50E+01	1.71E+03	1.68E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Manganese

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B6-1	7439-96-5	SW6010B	9/2/2009	-0.5	-1	3.41E+01		6.16E+00	1.50E+01	1.71E+03	1.68E+04	5.66E+02	1.82E+03
B6-2	7439-96-5	SW6010B	9/2/2009	-14.5	-15	1.63E+02		6.35E+00	1.50E+01	1.71E+03	1.68E+04		
B7 0-1'	7439-96-5	SW6010B	11/11/2009	0	-1	8.27E+01		1.39E+00	5.00E+00	1.71E+03	1.68E+04	5.66E+02	1.82E+03
B7 14-15'	7439-96-5	SW6010B	11/11/2009	-14	-15	5.80E+02		1.43E+00	5.00E+00	1.71E+03	1.68E+04		
B8-1	7439-96-5	SW6010B	9/2/2009	-1	-1.5	3.67E+01		6.29E+00	1.50E+01	1.71E+03	1.68E+04	6.84E+01	3.44E+02
B8-2	7439-96-5	SW6010B	9/2/2009	-14	-15	1.04E+03		6.11E+00	1.50E+01	1.71E+03	1.68E+04		
B9 0-1'	7439-96-5	SW6010B	11/11/2009	0	-1	2.34E+02		1.47E+00	5.00E+00	1.71E+03	1.68E+04	5.66E+02	1.82E+03
B9 14-15'	7439-96-5	SW6010B	11/11/2009	-14	-15	6.46E+01		1.42E+00	5.00E+00	1.71E+03	1.68E+04		

Mercury

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7439-97-6	SW7471A	8/31/2009	0	-1	2.15E-02	U	2.15E-02	4.00E-02	2.00E-01	1.08E-01		
B1 0-1'	7439-97-6	SW7471A	11/11/2009	0	-1	4.64E-02	U	4.64E-02	4.00E-02	2.00E-01	1.08E-01		
B1 14-15'	7439-97-6	SW7471A	11/11/2009	-14	-15	2.74E-02	U	2.74E-02	4.00E-02	2.00E-01	1.08E-01		
B10-1	7439-97-6	SW7471A	9/2/2009	-2	-3	2.57E-02	U	2.57E-02	4.00E-02	2.00E-01	1.08E-01		
B10-2	7439-97-6	SW7471A	9/2/2009	-13	-14	2.18E-02	U	2.18E-02	4.00E-02	2.00E-01	1.08E-01		
B2 1-1.5	7439-97-6	SW7471A	9/1/2009	-1	-1.5	2.03E-02	U	2.03E-02	4.00E-02	2.00E-01	1.08E-01		
B2 21-22.5	7439-97-6	SW7471A	9/1/2009	-21	-22.5	2.41E-02	U	2.41E-02	4.00E-02	2.00E-01	1.08E-01		
B3 12-13	7439-97-6	SW7471A	8/31/2009	-12	-13	1.93E-02	U	1.93E-02	4.00E-02	2.00E-01	1.08E-01		
B3 2-3	7439-97-6	SW7471A	8/31/2009	-2	-3	2.26E-02	U	2.26E-02	4.00E-02	2.00E-01	1.08E-01		
B4 14-14.5	7439-97-6	SW7471A	9/1/2009	-14	-14.5	2.17E-02	U	2.17E-02	4.00E-02	2.00E-01	1.08E-01		
B4 2-2.5	7439-97-6	SW7471A	9/1/2009	-2	-2.5	2.34E-02	U	2.34E-02	4.00E-02	2.00E-01	1.08E-01		
B5-1	7439-97-6	SW7471A	9/2/2009	-1	-1.5	2.31E-02	U	2.31E-02	4.00E-02	2.00E-01	1.08E-01		
B5-2	7439-97-6	SW7471A	9/2/2009	-14.5	-15	2.20E-02	U	2.20E-02	4.00E-02	2.00E-01	1.08E-01		
B6-1	7439-97-6	SW7471A	9/2/2009	-0.5	-1	2.13E-02	U	2.13E-02	4.00E-02	2.00E-01	1.08E-01		
B6-2	7439-97-6	SW7471A	9/2/2009	-14.5	-15	2.20E-02	U	2.20E-02	4.00E-02	2.00E-01	1.08E-01		
B7 0-1'	7439-97-6	SW7471A	11/11/2009	0	-1	3.12E-02	U	3.12E-02	4.00E-02	2.00E-01	1.08E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Mercury

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 14-15'	7439-97-6	SW7471A	11/11/2009	-14	-15	3.64E-02	U	3.64E-02	4.00E-02	2.00E-01	1.08E-01		
B8-1	7439-97-6	SW7471A	9/2/2009	-1	-1.5	2.17E-02	U	2.17E-02	4.00E-02	2.00E-01	1.08E-01		
B8-2	7439-97-6	SW7471A	9/2/2009	-14	-15	2.11E-02	U	2.11E-02	4.00E-02	2.00E-01	1.08E-01		
B9 0-1'	7439-97-6	SW7471A	11/11/2009	0	-1	4.09E-02	U	4.09E-02	4.00E-02	2.00E-01	1.08E-01		
B9 14-15'	7439-97-6	SW7471A	11/11/2009	-14	-15	3.54E-02	U	3.54E-02	4.00E-02	2.00E-01	1.08E-01		

Methyl tert-butyl ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	1634-04-4	SW8260B	8/31/2009	0	-1	9.38E-04	U	9.38E-04	5.00E-03	3.65E+01	3.83E+02		
B1 0-1'	1634-04-4	SW8260B	11/11/2009	0	-1	1.41E-03	U	1.41E-03	5.00E-03	3.65E+01	3.83E+02		
B1 14-15'	1634-04-4	SW8260B	11/11/2009	-14	-15	1.02E-03	U	1.02E-03	5.00E-03	3.65E+01	3.83E+02		
B10-1	1634-04-4	SW8260B	9/2/2009	-2	-3	1.12E-03	U	1.12E-03	5.00E-03	3.65E+01	3.83E+02		
B10-2	1634-04-4	SW8260B	9/2/2009	-13	-14	9.53E-04	U	9.53E-04	5.00E-03	3.65E+01	3.83E+02		
B2 1-1.5	1634-04-4	SW8260B	9/1/2009	-1	-1.5	8.87E-04	U	8.87E-04	5.00E-03	3.65E+01	3.83E+02		
B2 21-22.5	1634-04-4	SW8260B	9/1/2009	-21	-22.5	1.05E-03	U	1.05E-03	5.00E-03	3.65E+01	3.83E+02		
B3 12-13	1634-04-4	SW8260B	8/31/2009	-12	-13	8.44E-04	U	8.44E-04	5.00E-03	3.65E+01	3.83E+02		
B3 2-3	1634-04-4	SW8260B	8/31/2009	-2	-3	9.87E-04	U	9.87E-04	5.00E-03	3.65E+01	3.83E+02		
B4 14.5-15	1634-04-4	SW8260B	9/1/2009	-14.5	-15	9.58E-04	U	9.58E-04	5.00E-03	3.65E+01	3.83E+02		
B4 2-2.5	1634-04-4	SW8260B	9/1/2009	-2	-2.5	1.02E-03	U	1.02E-03	5.00E-03	3.65E+01	3.83E+02		
B5-1	1634-04-4	SW8260B	9/2/2009	-1	-1.5	1.01E-03	U	1.01E-03	5.00E-03	3.65E+01	3.83E+02		
B5-2	1634-04-4	SW8260B	9/2/2009	-14.5	-15	9.58E-04	U	9.58E-04	5.00E-03	3.65E+01	3.83E+02		
B6-1	1634-04-4	SW8260B	9/2/2009	-0.5	-1	9.30E-04	U	9.30E-04	5.00E-03	3.65E+01	3.83E+02		
B6-2	1634-04-4	SW8260B	9/2/2009	-14.5	-15	9.58E-04	U	9.58E-04	5.00E-03	3.65E+01	3.83E+02		
B7 0-1'	1634-04-4	SW8260B	11/11/2009	0	-1	1.10E-03	U	1.10E-03	5.00E-03	3.65E+01	3.83E+02		
B7 14-15'	1634-04-4	SW8260B	11/11/2009	-14	-15	1.21E-03	U	1.21E-03	5.00E-03	3.65E+01	3.83E+02		
B8-1	1634-04-4	SW8260B	9/2/2009	-1	-1.5	9.48E-04	U	9.48E-04	5.00E-03	3.65E+01	3.83E+02		
B8-2	1634-04-4	SW8260B	9/2/2009	-14	-15	9.22E-04	U	9.22E-04	5.00E-03	3.65E+01	3.83E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Methyl tert-butyl ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-3	1634-04-4	SW8260B	9/2/2009	-8	-8.5	1.00E-03	U	1.00E-03	5.00E-03	3.65E+01	3.83E+02		
B9 0-1'	1634-04-4	SW8260B	11/11/2009	0	-1	1.30E-03	U	1.30E-03	5.00E-03	3.65E+01	3.83E+02		
B9 14-15'	1634-04-4	SW8260B	11/11/2009	-14	-15	1.20E-03	U	1.20E-03	5.00E-03	3.65E+01	3.83E+02		

Methylene chloride

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	75-09-2	SW8260B	8/31/2009	0	-1	2.33E-03	U	2.33E-03	5.00E-03	5.00E-01	8.68E+00		
B1 0-1'	75-09-2	SW8260B	11/11/2009	0	-1	3.46E-03	U	3.46E-03	5.00E-03	5.00E-01	8.68E+00		
B1 14-15'	75-09-2	SW8260B	11/11/2009	-14	-15	2.53E-03	U	2.53E-03	5.00E-03	5.00E-01	8.68E+00		
B10-1	75-09-2	SW8260B	9/2/2009	-2	-3	2.77E-03	U	2.77E-03	5.00E-03	5.00E-01	8.68E+00		
B10-2	75-09-2	SW8260B	9/2/2009	-13	-14	2.36E-03	U	2.36E-03	5.00E-03	5.00E-01	8.68E+00		
B2 1-1.5	75-09-2	SW8260B	9/1/2009	-1	-1.5	2.20E-03	U	2.20E-03	5.00E-03	5.00E-01	8.68E+00		
B2 21-22.5	75-09-2	SW8260B	9/1/2009	-21	-22.5	2.60E-03	U	2.60E-03	5.00E-03	5.00E-01	8.68E+00		
B3 12-13	75-09-2	SW8260B	8/31/2009	-12	-13	2.09E-03	U	2.09E-03	5.00E-03	5.00E-01	8.68E+00		
B3 2-3	75-09-2	SW8260B	8/31/2009	-2	-3	2.45E-03	U	2.44E-03	5.00E-03	5.00E-01	8.68E+00		
B4 14.5-15	75-09-2	SW8260B	9/1/2009	-14.5	-15	2.38E-03	U	2.38E-03	5.00E-03	5.00E-01	8.68E+00		
B4 2-2.5	75-09-2	SW8260B	9/1/2009	-2	-2.5	2.53E-03	U	2.53E-03	5.00E-03	5.00E-01	8.68E+00		
B5-1	75-09-2	SW8260B	9/2/2009	-1	-1.5	2.49E-03	U	2.49E-03	5.00E-03	5.00E-01	8.68E+00		
B5-2	75-09-2	SW8260B	9/2/2009	-14.5	-15	2.38E-03	U	2.38E-03	5.00E-03	5.00E-01	8.68E+00		
B6-1	75-09-2	SW8260B	9/2/2009	-0.5	-1	2.30E-03	U	2.30E-03	5.00E-03	5.00E-01	8.68E+00		
B6-2	75-09-2	SW8260B	9/2/2009	-14.5	-15	2.38E-03	U	2.38E-03	5.00E-03	5.00E-01	8.68E+00		
B7 0-1'	75-09-2	SW8260B	11/11/2009	0	-1	2.73E-03	U	2.73E-03	5.00E-03	5.00E-01	8.68E+00		
B7 14-15'	75-09-2	SW8260B	11/11/2009	-14	-15	3.00E-03	U	3.00E-03	5.00E-03	5.00E-01	8.68E+00		
B8-1	75-09-2	SW8260B	9/2/2009	-1	-1.5	2.35E-03	U	2.35E-03	5.00E-03	5.00E-01	8.68E+00		
B8-2	75-09-2	SW8260B	9/2/2009	-14	-15	2.29E-03	U	2.29E-03	5.00E-03	5.00E-01	8.68E+00		
B8-3	75-09-2	SW8260B	9/2/2009	-8	-8.5	2.48E-03	U	2.48E-03	5.00E-03	5.00E-01	8.68E+00		
B9 0-1'	75-09-2	SW8260B	11/11/2009	0	-1	3.21E-03	U	3.21E-03	5.00E-03	5.00E-01	8.68E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Methylene chloride

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B9 14-15'	75-09-2	SW8260B	11/11/2009	-14	-15	2.96E-03	U	2.96E-03	5.00E-03	5.00E-01	8.68E+00		

Naphthalene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	91-20-3	SW8270C	8/31/2009	0	-1	1.66E-01	U	1.66E-01	3.30E-01	7.30E+01	1.81E+02		
B1 0-1	91-20-3	SW8260B	8/31/2009	0	-1	9.87E-04	U	9.87E-04	1.50E-02	7.30E+01	1.81E+02		
B1 0-1'	91-20-3	SW8270C	11/11/2009	0	-1	1.72E-01	U	1.72E-01	3.30E-01	7.30E+01	1.81E+02		
B1 0-1'	91-20-3	SW8260B	11/11/2009	0	-1	1.48E-03	U	1.48E-03	1.50E-02	7.30E+01	1.81E+02		
B1 14-15'	91-20-3	SW8260B	11/11/2009	-14	-15	1.08E-03	U	1.08E-03	1.50E-02	7.30E+01	1.81E+02		
B1 14-15'	91-20-3	SW8270C	11/11/2009	-14	-15	1.55E-01	U	1.55E-01	3.30E-01	7.30E+01	1.81E+02		
B10-1	91-20-3	SW8260B	9/2/2009	-2	-3	1.18E-03	U	1.18E-03	1.50E-02	7.30E+01	1.81E+02		
B10-1	91-20-3	SW8270C	9/2/2009	-2	-3	1.98E-01	U	1.98E-01	3.30E-01	7.30E+01	1.81E+02		
B10-2	91-20-3	SW8260B	9/2/2009	-13	-14	1.00E-03	U	1.00E-03	1.50E-02	7.30E+01	1.81E+02		
B10-2	91-20-3	SW8270C	9/2/2009	-13	-14	1.69E-01	U	1.69E-01	3.30E-01	7.30E+01	1.81E+02		
B2 1-1.5	91-20-3	SW8270C	9/1/2009	-1	-1.5	1.57E-01	U	1.57E-01	3.30E-01	7.30E+01	1.81E+02		
B2 1-1.5	91-20-3	SW8260B	9/1/2009	-1	-1.5	9.33E-04	U	9.33E-04	1.50E-02	7.30E+01	1.81E+02		
B2 21-22.5	91-20-3	SW8260B	9/1/2009	-21	-22.5	1.10E-03	U	1.10E-03	1.50E-02	7.30E+01	1.81E+02		
B2 21-22.5	91-20-3	SW8270C	9/1/2009	-21	-22.5	1.86E-01	U	1.86E-01	3.30E-01	7.30E+01	1.81E+02		
B3 12-13	91-20-3	SW8260B	8/31/2009	-12	-13	8.88E-04	U	8.88E-04	1.50E-02	7.30E+01	1.81E+02		
B3 12-13	91-20-3	SW8270C	8/31/2009	-12	-13	1.49E-01	U	1.50E-01	3.30E-01	7.30E+01	1.81E+02		
B3 2-3	91-20-3	SW8260B	8/31/2009	-2	-3	1.04E-03	U	1.04E-03	1.50E-02	7.30E+01	1.81E+02		
B3 2-3	91-20-3	SW8270C	8/31/2009	-2	-3	1.75E-01	U	1.75E-01	3.30E-01	7.30E+01	1.81E+02		
B4 14.5-15	91-20-3	SW8260B	9/1/2009	-14.5	-15	1.01E-03	U	1.01E-03	1.50E-02	7.30E+01	1.81E+02		
B4 14-14.5	91-20-3	SW8270C	9/1/2009	-14	-14.5	1.68E-01	U	1.68E-01	3.30E-01	7.30E+01	1.81E+02		
B4 2-2.5	91-20-3	SW8270C	9/1/2009	-2	-2.5	1.81E-01	U	1.81E-01	3.30E-01	7.30E+01	1.81E+02		
B4 2-2.5	91-20-3	SW8260B	9/1/2009	-2	-2.5	1.08E-03	U	1.08E-03	1.50E-02	7.30E+01	1.81E+02		
B5-1	91-20-3	SW8270C	9/2/2009	-1	-1.5	1.78E-01	U	1.78E-01	3.30E-01	7.30E+01	1.81E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Naphthalene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B5-1	91-20-3	SW8260B	9/2/2009	-1	-1.5	1.06E-03	U	1.06E-03	1.50E-02	7.30E+01	1.81E+02		
B5-2	91-20-3	SW8270C	9/2/2009	-14.5	-15	1.70E-01	U	1.70E-01	3.30E-01	7.30E+01	1.81E+02		
B5-2	91-20-3	SW8260B	9/2/2009	-14.5	-15	1.01E-03	U	1.01E-03	1.50E-02	7.30E+01	1.81E+02		
B6-1	91-20-3	SW8260B	9/2/2009	-0.5	-1	9.78E-04	U	9.78E-04	1.50E-02	7.30E+01	1.81E+02		
B6-1	91-20-3	SW8270C	9/2/2009	-0.5	-1	1.65E-01	U	1.65E-01	3.30E-01	7.30E+01	1.81E+02		
B6-2	91-20-3	SW8270C	9/2/2009	-14.5	-15	1.70E-01	U	1.70E-01	3.30E-01	7.30E+01	1.81E+02		
B6-2	91-20-3	SW8260B	9/2/2009	-14.5	-15	1.01E-03	U	1.01E-03	1.50E-02	7.30E+01	1.81E+02		
B7 0-1'	91-20-3	SW8270C	11/11/2009	0	-1	1.59E-01	U	1.59E-01	3.30E-01	7.30E+01	1.81E+02		
B7 0-1'	91-20-3	SW8260B	11/11/2009	0	-1	1.63E-02		1.17E-03	1.50E-02	7.30E+01	1.81E+02		
B7 14-15'	91-20-3	SW8270C	11/11/2009	-14	-15	1.64E-01	U	1.64E-01	3.30E-01	7.30E+01	1.81E+02		
B7 14-15'	91-20-3	SW8260B	11/11/2009	-14	-15	2.44E-03		1.27E-03	1.50E-02	7.30E+01	1.81E+02		
B8-1	91-20-3	SW8260B	9/2/2009	-1	-1.5	9.98E-04	U	9.98E-04	1.50E-02	7.30E+01	1.81E+02		
B8-1	91-20-3	SW8270C	9/2/2009	-1	-1.5	1.68E-01	U	1.68E-01	3.30E-01	7.30E+01	1.81E+02		
B8-2	91-20-3	SW8270C	9/2/2009	-14	-15	1.63E-01	U	1.63E-01	3.30E-01	7.30E+01	1.81E+02		
B8-2	91-20-3	SW8260B	9/2/2009	-14	-15	9.70E-04	U	9.70E-04	1.50E-02	7.30E+01	1.81E+02		
B8-3	91-20-3	SW8260B	9/2/2009	-8	-8.5	1.05E-03	U	1.05E-03	1.50E-02	7.30E+01	1.81E+02		
B9 0-1'	91-20-3	SW8260B	11/11/2009	0	-1	1.37E-03	U	1.37E-03	1.50E-02	7.30E+01	1.81E+02		
B9 0-1'	91-20-3	SW8270C	11/11/2009	0	-1	1.68E-01	U	1.68E-01	3.30E-01	7.30E+01	1.81E+02		
B9 14-15'	91-20-3	SW8260B	11/11/2009	-14	-15	8.69E-03		1.25E-03	1.50E-02	7.30E+01	1.81E+02		
B9 14-15'	91-20-3	SW8270C	11/11/2009	-14	-15	1.63E-01	U	1.63E-01	3.30E-01	7.30E+01	1.81E+02		

n-Butylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	104-51-8	SW8260B	8/31/2009	0	-1	8.23E-04	U	8.23E-04	5.00E-03	1.46E+02	2.70E+03		
B1 0-1'	104-51-8	SW8260B	11/11/2009	0	-1	1.23E-03	U	1.23E-03	5.00E-03	1.46E+02	2.70E+03		
B1 14-15'	104-51-8	SW8260B	11/11/2009	-14	-15	8.97E-04	U	8.97E-04	5.00E-03	1.46E+02	2.70E+03		
B10-1	104-51-8	SW8260B	9/2/2009	-2	-3	9.82E-04	U	9.82E-04	5.00E-03	1.46E+02	2.70E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

n-Butylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-2	104-51-8	SW8260B	9/2/2009	-13	-14	8.36E-04	U	8.36E-04	5.00E-03	1.46E+02	2.70E+03		
B2 1-1.5	104-51-8	SW8260B	9/1/2009	-1	-1.5	7.78E-04	U	7.78E-04	5.00E-03	1.46E+02	2.70E+03		
B2 21-22.5	104-51-8	SW8260B	9/1/2009	-21	-22.5	9.21E-04	U	9.21E-04	5.00E-03	1.46E+02	2.70E+03		
B3 12-13	104-51-8	SW8260B	8/31/2009	-12	-13	7.40E-04	U	7.40E-04	5.00E-03	1.46E+02	2.70E+03		
B3 2-3	104-51-8	SW8260B	8/31/2009	-2	-3	8.65E-04	U	8.66E-04	5.00E-03	1.46E+02	2.70E+03		
B4 14.5-15	104-51-8	SW8260B	9/1/2009	-14.5	-15	8.41E-04	U	8.41E-04	5.00E-03	1.46E+02	2.70E+03		
B4 2-2.5	104-51-8	SW8260B	9/1/2009	-2	-2.5	8.97E-04	U	8.97E-04	5.00E-03	1.46E+02	2.70E+03		
B5-1	104-51-8	SW8260B	9/2/2009	-1	-1.5	8.83E-04	U	8.83E-04	5.00E-03	1.46E+02	2.70E+03		
B5-2	104-51-8	SW8260B	9/2/2009	-14.5	-15	8.41E-04	U	8.41E-04	5.00E-03	1.46E+02	2.70E+03		
B6-1	104-51-8	SW8260B	9/2/2009	-0.5	-1	8.16E-04	U	8.16E-04	5.00E-03	1.46E+02	2.70E+03		
B6-2	104-51-8	SW8260B	9/2/2009	-14.5	-15	8.41E-04	U	8.41E-04	5.00E-03	1.46E+02	2.70E+03		
B7 0-1'	104-51-8	SW8260B	11/11/2009	0	-1	1.11E-02		9.69E-04	5.00E-03	1.46E+02	2.70E+03		
B7 14-15'	104-51-8	SW8260B	11/11/2009	-14	-15	1.06E-03	U	1.06E-03	5.00E-03	1.46E+02	2.70E+03		
B8-1	104-51-8	SW8260B	9/2/2009	-1	-1.5	8.32E-04	U	8.32E-04	5.00E-03	1.46E+02	2.70E+03		
B8-2	104-51-8	SW8260B	9/2/2009	-14	-15	8.09E-04	U	8.09E-04	5.00E-03	1.46E+02	2.70E+03		
B8-3	104-51-8	SW8260B	9/2/2009	-8	-8.5	8.77E-04	U	8.77E-04	5.00E-03	1.46E+02	2.70E+03		
B9 0-1'	104-51-8	SW8260B	11/11/2009	0	-1	1.14E-03	U	1.14E-03	5.00E-03	1.46E+02	2.70E+03		
B9 14-15'	104-51-8	SW8260B	11/11/2009	-14	-15	1.57E-03		1.05E-03	5.00E-03	1.46E+02	2.70E+03		

Nickel

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-02-0	SW6010B	8/31/2009	0	-1	7.93E+00		5.57E-01	1.00E+00	7.30E+01	1.87E+03	3.93E+00	8.87E+00
B1 0-1'	7440-02-0	SW6010B	11/11/2009	0	-1	1.17E+01		5.76E-01	1.00E+00	7.30E+01	1.87E+03	3.93E+00	8.87E+00
B1 14-15'	7440-02-0	SW6010B	11/11/2009	-14	-15	6.98E+00		5.18E-01	1.00E+00	7.30E+01	1.87E+03		
B10-1	7440-02-0	SW6010B	9/2/2009	-2	-3	9.60E+00		6.64E-01	1.00E+00	7.30E+01	1.87E+03	6.15E+01	1.52E+01
B10-2	7440-02-0	SW6010B	9/2/2009	-13	-14	7.34E+00		5.66E-01	1.00E+00	7.30E+01	1.87E+03		
B2 1-1.5	7440-02-0	SW6010B	9/1/2009	-1	-1.5	1.31E+01		5.26E-01	1.00E+00	7.30E+01	1.87E+03	6.15E+01	1.52E+01

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Nickel

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B2 21-22.5	7440-02-0	SW6010B	9/1/2009	-21	-22.5	2.09E+01		6.23E-01	1.00E+00	7.30E+01	1.87E+03		
B3 12-13	7440-02-0	SW6010B	8/31/2009	-12	-13	7.58E+00		5.01E-01	1.00E+00	7.30E+01	1.87E+03		
B3 2-3	7440-02-0	SW6010B	8/31/2009	-2	-3	1.11E+01		5.86E-01	1.00E+00	7.30E+01	1.87E+03	6.15E+01	1.52E+01
B4 14-14.5	7440-02-0	SW6010B	9/1/2009	-14	-14.5	3.74E+01		5.62E-01	1.00E+00	7.30E+01	1.87E+03		
B4 2-2.5	7440-02-0	SW6010B	9/1/2009	-2	-2.5	1.05E+01		6.07E-01	1.00E+00	7.30E+01	1.87E+03	6.15E+01	1.52E+01
B5-1	7440-02-0	SW6010B	9/2/2009	-1	-1.5	1.22E+01		5.97E-01	1.00E+00	7.30E+01	1.87E+03	6.15E+01	1.52E+01
B5-2	7440-02-0	SW6010B	9/2/2009	-14.5	-15	2.95E+01		5.69E-01	1.00E+00	7.30E+01	1.87E+03		
B6-1	7440-02-0	SW6010B	9/2/2009	-0.5	-1	8.76E+00		5.52E-01	1.00E+00	7.30E+01	1.87E+03	3.93E+00	8.87E+00
B6-2	7440-02-0	SW6010B	9/2/2009	-14.5	-15	3.12E+01		5.69E-01	1.00E+00	7.30E+01	1.87E+03		
B7 0-1'	7440-02-0	SW6010B	11/11/2009	0	-1	7.69E+00		5.32E-01	1.00E+00	7.30E+01	1.87E+03	3.93E+00	8.87E+00
B7 14-15'	7440-02-0	SW6010B	11/11/2009	-14	-15	3.55E+00		5.48E-01	1.00E+00	7.30E+01	1.87E+03		
B8-1	7440-02-0	SW6010B	9/2/2009	-1	-1.5	7.18E+00		5.63E-01	1.00E+00	7.30E+01	1.87E+03	6.15E+01	1.52E+01
B8-2	7440-02-0	SW6010B	9/2/2009	-14	-15	1.50E+01		5.47E-01	1.00E+00	7.30E+01	1.87E+03		
B9 0-1'	7440-02-0	SW6010B	11/11/2009	0	-1	5.19E+00		5.62E-01	1.00E+00	7.30E+01	1.87E+03	3.93E+00	8.87E+00
B9 14-15'	7440-02-0	SW6010B	11/11/2009	-14	-15	9.24E+00		5.46E-01	1.00E+00	7.30E+01	1.87E+03		

Nitrobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	98-95-3	SW8270C	8/31/2009	0	-1	1.69E-01	U	1.69E-01	3.30E-01	1.83E+00	6.49E+01		
B1 0-1'	98-95-3	SW8270C	11/11/2009	0	-1	1.74E-01	U	1.74E-01	3.30E-01	1.83E+00	6.49E+01		
B1 1-2 FT	98-95-3	SW-846 83	8/31/2009	-1	-2	8.53E-01	U	8.53E-01	1.00E-01	1.83E+00	6.49E+01		
B1 13-14	98-95-3	SW-846 83	8/31/2009	-13	-14	8.53E-01	U	8.53E-01	1.00E-01	1.83E+00	6.49E+01		
B1 14-15'	98-95-3	SW8270C	11/11/2009	-14	-15	1.57E-01	U	1.57E-01	3.30E-01	1.83E+00	6.49E+01		
B10 1 - 2	98-95-3	SW-846 83	9/2/2009	-1	-2	1.01E+00	U	1.01E+00	1.00E-01	1.83E+00	6.49E+01		
B10 11.5 - 1	98-95-3	SW-846 83	9/2/2009	-11.5	-12	1.05E+00	U	1.05E+00	1.00E-01	1.83E+00	6.49E+01		
B10-1	98-95-3	SW8270C	9/2/2009	-2	-3	2.01E-01	U	2.01E-01	3.30E-01	1.83E+00	6.49E+01		
B10-2	98-95-3	SW8270C	9/2/2009	-13	-14	1.71E-01	U	1.71E-01	3.30E-01	1.83E+00	6.49E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Nitrobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B2 0.5-1.0	98-95-3	SW-846 83	9/1/2009	-0.5	-1	8.53E-01	U	8.53E-01	1.00E-01	1.83E+00	6.49E+01		
B2 1-1.5	98-95-3	SW8270C	9/1/2009	-1	-1.5	1.59E-01	U	1.59E-01	3.30E-01	1.83E+00	6.49E+01		
B2 21-21.5	98-95-3	SW-846 83	9/1/2009	-21	-21.5	8.53E-01	U	8.53E-01	1.00E-01	1.83E+00	6.49E+01		
B2 21-22.5	98-95-3	SW8270C	9/1/2009	-21	-22.5	1.89E-01	U	1.89E-01	3.30E-01	1.83E+00	6.49E+01		
B3 0-1	98-95-3	SW-846 83	8/31/2009	0	-1	8.53E-01	U	8.53E-01	1.00E-01	1.83E+00	6.49E+01		
B3 12-13	98-95-3	SW8270C	8/31/2009	-12	-13	1.52E-01	U	1.52E-01	3.30E-01	1.83E+00	6.49E+01		
B3 14-15	98-95-3	SW-846 83	8/31/2009	-14	-15	8.53E-01	U	8.53E-01	1.00E-01	1.83E+00	6.49E+01		
B3 2-3	98-95-3	SW8270C	8/31/2009	-2	-3	1.77E-01	U	1.77E-01	3.30E-01	1.83E+00	6.49E+01		
B4 13-14	98-95-3	SW-846 83	9/1/2009	-13	-14	8.53E-01	U	8.53E-01	1.00E-01	1.83E+00	6.49E+01		
B4 14-14.5	98-95-3	SW8270C	9/1/2009	-14	-14.5	1.70E-01	U	1.70E-01	3.30E-01	1.83E+00	6.49E+01		
B4 2-2.5	98-95-3	SW8270C	9/1/2009	-2	-2.5	1.84E-01	U	1.84E-01	3.30E-01	1.83E+00	6.49E+01		
B4 3-3.5	98-95-3	SW-846 83	9/1/2009	-3	-3.5	8.53E-01	U	8.53E-01	1.00E-01	1.83E+00	6.49E+01		
B5 14 - 14.	98-95-3	SW-846 83	9/2/2009	-14	-14.5	1.00E+00	U	1.00E+00	1.00E-01	1.83E+00	6.49E+01		
B5 0.5 - 1 M	98-95-3	SW-846 83	9/2/2009	-0.5	-1	1.04E+00	U	1.04E+00	1.00E-01	1.83E+00	6.49E+01		
B5-1	98-95-3	SW8270C	9/2/2009	-1	-1.5	1.81E-01	U	1.81E-01	3.30E-01	1.83E+00	6.49E+01		
B5-2	98-95-3	SW8270C	9/2/2009	-14.5	-15	1.72E-01	U	1.72E-01	3.30E-01	1.83E+00	6.49E+01		
B6 1 - 1.5	98-95-3	SW-846 83	9/2/2009	-1	-1.5	1.00E+00	U	1.00E+00	1.00E-01	1.83E+00	6.49E+01		
B6 14 - 14.5	98-95-3	SW-846 83	9/2/2009	-14	-14.5	9.82E-01	U	9.82E-01	1.00E-01	1.83E+00	6.49E+01		
B6-1	98-95-3	SW8270C	9/2/2009	-0.5	-1	1.67E-01	U	1.67E-01	3.30E-01	1.83E+00	6.49E+01		
B6-2	98-95-3	SW8270C	9/2/2009	-14.5	-15	1.72E-01	U	1.72E-01	3.30E-01	1.83E+00	6.49E+01		
B7 0-1'	98-95-3	SW8270C	11/11/2009	0	-1	1.61E-01	U	1.61E-01	3.30E-01	1.83E+00	6.49E+01		
B7 0-1 FT	98-95-3	SW-846 83	8/31/2009	0	-1	8.53E-01	U	8.53E-01	1.00E-01	1.83E+00	6.49E+01		
B7 14-15	98-95-3	SW-846 83	8/31/2009	-14	-15	8.53E-01	U	8.53E-01	1.00E-01	1.83E+00	6.49E+01		
B7 14-15'	98-95-3	SW8270C	11/11/2009	-14	-15	1.66E-01	U	1.66E-01	3.30E-01	1.83E+00	6.49E+01		
B8 13 - 14	98-95-3	SW-846 83	9/2/2009	-13	-14	9.68E-01	U	9.68E-01	1.00E-01	1.83E+00	6.49E+01		
B8 2.75 - 3	98-95-3	SW-846 83	9/2/2009	-2.75	-3	1.07E+00	U	1.07E+00	1.00E-01	1.83E+00	6.49E+01		
B8-1	98-95-3	SW8270C	9/2/2009	-1	-1.5	1.70E-01	U	1.70E-01	3.30E-01	1.83E+00	6.49E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Nitrobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-2	98-95-3	SW8270C	9/2/2009	-14	-15	1.66E-01	U	1.66E-01	3.30E-01	1.83E+00	6.49E+01		
B9 0-1'	98-95-3	SW8270C	11/11/2009	0	-1	1.70E-01	U	1.70E-01	3.30E-01	1.83E+00	6.49E+01		
B9 14-15	98-95-3	SW-846 83	8/31/2009	-14	-15	8.53E-01	U	8.53E-01	1.00E-01	1.83E+00	6.49E+01		
B9 14-15'	98-95-3	SW8270C	11/11/2009	-14	-15	1.65E-01	U	1.65E-01	3.30E-01	1.83E+00	6.49E+01		
B9-0-2 FT	98-95-3	SW-846 83	8/31/2009	0	-2	8.53E-01	U	8.53E-01	1.00E-01	1.83E+00	6.49E+01		

N-Nitrosodimethylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	62-75-9	SW8270C	8/31/2009	0	-1	8.69E-02	U	8.69E-02	3.30E-01	1.67E-04	1.26E-02		
B1 0-1	62-75-9	SW8270C	8/31/2009	0	-1	1.12E-02	U	1.12E-02	3.33E-02	1.67E-04	1.26E-02		
B1 0-1'	62-75-9	SW8270C	11/11/2009	0	-1	1.21E-02	U	1.21E-02	3.30E-02	1.67E-04	1.26E-02		
B1 14-15'	62-75-9	SW8270C	11/11/2009	-14	-15	1.09E-02	U	1.09E-02	3.30E-02	1.67E-04	1.26E-02		
B10-1	62-75-9	SW8270C	9/2/2009	-2	-3	1.04E-01	U	1.04E-01	3.30E-01	1.67E-04	1.26E-02		
B10-1	62-75-9	SW8270C	9/2/2009	-2	-3	1.33E-02	U	1.33E-02	3.33E-02	1.67E-04	1.26E-02		
B10-2	62-75-9	SW8270C	9/2/2009	-13	-14	1.13E-02	U	1.13E-02	3.33E-02	1.67E-04	1.26E-02		
B10-2	62-75-9	SW8270C	9/2/2009	-13	-14	8.82E-02	U	8.82E-02	3.30E-01	1.67E-04	1.26E-02		
B2 1-1.5	62-75-9	SW8270C	9/1/2009	-1	-1.5	1.05E-02	U	1.05E-02	3.33E-02	1.67E-04	1.26E-02		
B2 1-1.5	62-75-9	SW8270C	9/1/2009	-1	-1.5	8.21E-02	U	8.21E-02	3.30E-01	1.67E-04	1.26E-02		
B2 21-22.5	62-75-9	SW8270C	9/1/2009	-21	-22.5	1.25E-02	U	1.25E-02	3.33E-02	1.67E-04	1.26E-02		
B2 21-22.5	62-75-9	SW8270C	9/1/2009	-21	-22.5	9.71E-02	U	9.71E-02	3.30E-01	1.67E-04	1.26E-02		
B3 12-13	62-75-9	SW8270C	8/31/2009	-12	-13	1.00E-02	U	1.00E-02	3.33E-02	1.67E-04	1.26E-02		
B3 12-13	62-75-9	SW8270C	8/31/2009	-12	-13	7.81E-02	U	7.81E-02	3.30E-01	1.67E-04	1.26E-02		
B3 2-3	62-75-9	SW8270C	8/31/2009	-2	-3	9.13E-02	U	9.13E-02	3.30E-01	1.67E-04	1.26E-02		
B3 2-3	62-75-9	SW8270C	8/31/2009	-2	-3	1.17E-02	U	1.17E-02	3.33E-02	1.67E-04	1.26E-02		
B4 14-14.5	62-75-9	SW8270C	9/1/2009	-14	-14.5	1.13E-02	U	1.13E-02	3.33E-02	1.67E-04	1.26E-02		
B4 14-14.5	62-75-9	SW8270C	9/1/2009	-14	-14.5	8.77E-02	U	8.77E-02	3.30E-01	1.67E-04	1.26E-02		
B4 2-2.5	62-75-9	SW8270C	9/1/2009	-2	-2.5	9.47E-02	U	9.47E-02	3.30E-01	1.67E-04	1.26E-02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

N-Nitrosodimethylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 2-2.5	62-75-9	SW8270C	9/1/2009	-2	-2.5	1.22E-02	U	1.22E-02	3.33E-02	1.67E-04	1.26E-02		
B5-1	62-75-9	SW8270C	9/2/2009	-1	-1.5	9.31E-02	U	9.31E-02	3.30E-01	1.67E-04	1.26E-02		
B5-1	62-75-9	SW8270C	9/2/2009	-1	-1.5	1.20E-02	U	1.20E-02	3.33E-02	1.67E-04	1.26E-02		
B5-2	62-75-9	SW8270C	9/2/2009	-14.5	-15	8.87E-02	U	8.87E-02	3.30E-01	1.67E-04	1.26E-02		
B5-2	62-75-9	SW8270C	9/2/2009	-14.5	-15	1.14E-02	U	1.14E-02	3.33E-02	1.67E-04	1.26E-02		
B6-1	62-75-9	SW8270C	9/2/2009	-0.5	-1	8.61E-02	U	8.61E-02	3.30E-01	1.67E-04	1.26E-02		
B6-1	62-75-9	SW8270C	9/2/2009	-0.5	-1	1.10E-02	U	1.10E-02	3.33E-02	1.67E-04	1.26E-02		
B6-2	62-75-9	SW8270C	9/2/2009	-14.5	-15	8.87E-02	U	8.87E-02	3.30E-01	1.67E-04	1.26E-02		
B6-2	62-75-9	SW8270C	9/2/2009	-14.5	-15	1.14E-02	U	1.14E-02	3.33E-02	1.67E-04	1.26E-02		
B7 0-1'	62-75-9	SW8270C	11/11/2009	0	-1	1.12E-02	U	1.12E-02	3.30E-02	1.67E-04	1.26E-02		
B7 14-15'	62-75-9	SW8270C	11/11/2009	-14	-15	1.16E-02	U	1.16E-02	3.30E-02	1.67E-04	1.26E-02		
B8-1	62-75-9	SW8270C	9/2/2009	-1	-1.5	8.78E-02	U	8.78E-02	3.30E-01	1.67E-04	1.26E-02		
B8-1	62-75-9	SW8270C	9/2/2009	-1	-1.5	1.13E-02	U	1.13E-02	3.33E-02	1.67E-04	1.26E-02		
B8-2	62-75-9	SW8270C	9/2/2009	-14	-15	1.10E-02	U	1.10E-02	3.33E-02	1.67E-04	1.26E-02		
B8-2	62-75-9	SW8270C	9/2/2009	-14	-15	8.54E-02	U	8.54E-02	3.30E-01	1.67E-04	1.26E-02		
B9 0-1'	62-75-9	SW8270C	11/11/2009	0	-1	1.18E-02	U	1.18E-02	3.30E-02	1.67E-04	1.26E-02		
B9 14-15'	62-75-9	SW8270C	11/11/2009	-14	-15	1.15E-02	U	1.15E-02	3.30E-02	1.67E-04	1.26E-02		

N-Nitrosodi-n-propylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	621-64-7	SW8270C	8/31/2009	0	-1	1.17E-02	U	1.17E-02	3.33E-02	4.15E-02	4.10E-02		
B1 0-1	621-64-7	SW8270C	8/31/2009	0	-1	5.51E-01		7.56E-02	3.30E-01	4.15E-02	4.10E-02		
B1 0-1'	621-64-7	SW8270C	11/11/2009	0	-1	1.15E-02	U	1.15E-02	3.30E-02	4.15E-02	4.10E-02		
B1 14-15'	621-64-7	SW8270C	11/11/2009	-14	-15	1.04E-02	U	1.04E-02	3.30E-02	4.15E-02	4.10E-02		
B10-1	621-64-7	SW8270C	9/2/2009	-2	-3	1.40E-02	U	1.40E-02	3.33E-02	4.15E-02	4.10E-02		
B10-1	621-64-7	SW8270C	9/2/2009	-2	-3	9.02E-02	U	9.02E-02	3.30E-01	4.15E-02	4.10E-02		
B10-2	621-64-7	SW8270C	9/2/2009	-13	-14	7.67E-02	U	7.67E-02	3.30E-01	4.15E-02	4.10E-02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

N-Nitrosodi-n-propylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-2	621-64-7	SW8270C	9/2/2009	-13	-14	1.19E-02	U	1.19E-02	3.33E-02	4.15E-02	4.10E-02		
B2 1-1.5	621-64-7	SW8270C	9/1/2009	-1	-1.5	4.90E-01		7.14E-02	3.30E-01	4.15E-02	4.10E-02		
B2 1-1.5	621-64-7	SW8270C	9/1/2009	-1	-1.5	1.11E-02	U	1.11E-02	3.33E-02	4.15E-02	4.10E-02		
B2 21-22.5	621-64-7	SW8270C	9/1/2009	-21	-22.5	1.31E-02	U	1.31E-02	3.33E-02	4.15E-02	4.10E-02		
B2 21-22.5	621-64-7	SW8270C	9/1/2009	-21	-22.5	4.51E-01		8.45E-02	3.30E-01	4.15E-02	4.10E-02		
B3 12-13	621-64-7	SW8270C	8/31/2009	-12	-13	6.80E-02	U	6.80E-02	3.30E-01	4.15E-02	4.10E-02		
B3 12-13	621-64-7	SW8270C	8/31/2009	-12	-13	1.06E-02	U	1.06E-02	3.33E-02	4.15E-02	4.10E-02		
B3 2-3	621-64-7	SW8270C	8/31/2009	-2	-3	7.95E-02	U	7.95E-02	3.30E-01	4.15E-02	4.10E-02		
B3 2-3	621-64-7	SW8270C	8/31/2009	-2	-3	1.23E-02	U	1.23E-02	3.33E-02	4.15E-02	4.10E-02		
B4 14-14.5	621-64-7	SW8270C	9/1/2009	-14	-14.5	1.19E-02	U	1.19E-02	3.33E-02	4.15E-02	4.10E-02		
B4 14-14.5	621-64-7	SW8270C	9/1/2009	-14	-14.5	7.63E-02	U	7.63E-02	3.30E-01	4.15E-02	4.10E-02		
B4 2-2.5	621-64-7	SW8270C	9/1/2009	-2	-2.5	1.28E-02	U	1.28E-02	3.33E-02	4.15E-02	4.10E-02		
B4 2-2.5	621-64-7	SW8270C	9/1/2009	-2	-2.5	4.01E-01		8.24E-02	3.30E-01	4.15E-02	4.10E-02		
B5-1	621-64-7	SW8270C	9/2/2009	-1	-1.5	1.26E-02	U	1.26E-02	3.33E-02	4.15E-02	4.10E-02		
B5-1	621-64-7	SW8270C	9/2/2009	-1	-1.5	5.34E-01	JH	8.10E-02	3.30E-01	4.15E-02	4.10E-02		
B5-2	621-64-7	SW8270C	9/2/2009	-14.5	-15	4.95E-01	JH	7.72E-02	3.30E-01	4.15E-02	4.10E-02		
B5-2	621-64-7	SW8270C	9/2/2009	-14.5	-15	1.20E-02	U	1.20E-02	3.33E-02	4.15E-02	4.10E-02		
B6-1	621-64-7	SW8270C	9/2/2009	-0.5	-1	1.16E-02	U	1.16E-02	3.33E-02	4.15E-02	4.10E-02		
B6-1	621-64-7	SW8270C	9/2/2009	-0.5	-1	7.49E-02	U	7.49E-02	3.30E-01	4.15E-02	4.10E-02		
B6-2	621-64-7	SW8270C	9/2/2009	-14.5	-15	1.20E-02	U	1.20E-02	3.33E-02	4.15E-02	4.10E-02		
B6-2	621-64-7	SW8270C	9/2/2009	-14.5	-15	7.72E-02	U	7.72E-02	3.30E-01	4.15E-02	4.10E-02		
B7 0-1'	621-64-7	SW8270C	11/11/2009	0	-1	1.07E-02	U	1.07E-02	3.30E-02	4.15E-02	4.10E-02		
B7 14-15'	621-64-7	SW8270C	11/11/2009	-14	-15	1.10E-02	U	1.10E-02	3.30E-02	4.15E-02	4.10E-02		
B8-1	621-64-7	SW8270C	9/2/2009	-1	-1.5	1.19E-02	U	1.19E-02	3.33E-02	4.15E-02	4.10E-02		
B8-1	621-64-7	SW8270C	9/2/2009	-1	-1.5	7.64E-02	U	7.64E-02	3.30E-01	4.15E-02	4.10E-02		
B8-2	621-64-7	SW8270C	9/2/2009	-14	-15	7.43E-02	U	7.43E-02	3.30E-01	4.15E-02	4.10E-02		
B8-2	621-64-7	SW8270C	9/2/2009	-14	-15	1.15E-02	U	1.15E-02	3.33E-02	4.15E-02	4.10E-02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

N-Nitrosodi-n-propylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B9 0-1'	621-64-7	SW8270C	11/11/2009	0	-1	1.13E-02	U	1.13E-02	3.30E-02	4.15E-02	4.10E-02		
B9 14-15'	621-64-7	SW8270C	11/11/2009	-14	-15	1.09E-02	U	1.09E-02	3.30E-02	4.15E-02	4.10E-02		

N-Nitrosodiphenylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	86-30-6	SW8270C	8/31/2009	0	-1	8.45E-02	U	8.45E-02	3.30E-01	1.74E+00	5.85E+01		
B1 0-1'	86-30-6	SW8270C	11/11/2009	0	-1	8.74E-02	U	8.74E-02	3.30E-01	1.74E+00	5.85E+01		
B1 14-15'	86-30-6	SW8270C	11/11/2009	-14	-15	7.87E-02	U	7.87E-02	3.30E-01	1.74E+00	5.85E+01		
B10-1	86-30-6	SW8270C	9/2/2009	-2	-3	1.01E-01	U	1.01E-01	3.30E-01	1.74E+00	5.85E+01		
B10-2	86-30-6	SW8270C	9/2/2009	-13	-14	8.58E-02	U	8.58E-02	3.30E-01	1.74E+00	5.85E+01		
B2 1-1.5	86-30-6	SW8270C	9/1/2009	-1	-1.5	7.99E-02	U	7.99E-02	3.30E-01	1.74E+00	5.85E+01		
B2 21-22.5	86-30-6	SW8270C	9/1/2009	-21	-22.5	9.45E-02	U	9.45E-02	3.30E-01	1.74E+00	5.85E+01		
B3 12-13	86-30-6	SW8270C	8/31/2009	-12	-13	7.60E-02	U	7.60E-02	3.30E-01	1.74E+00	5.85E+01		
B3 2-3	86-30-6	SW8270C	8/31/2009	-2	-3	8.89E-02	U	8.89E-02	3.30E-01	1.74E+00	5.85E+01		
B4 14-14.5	86-30-6	SW8270C	9/1/2009	-14	-14.5	8.53E-02	U	8.53E-02	3.30E-01	1.74E+00	5.85E+01		
B4 2-2.5	86-30-6	SW8270C	9/1/2009	-2	-2.5	9.21E-02	U	9.21E-02	3.30E-01	1.74E+00	5.85E+01		
B5-1	86-30-6	SW8270C	9/2/2009	-1	-1.5	9.06E-02	U	9.06E-02	3.30E-01	1.74E+00	5.85E+01		
B5-2	86-30-6	SW8270C	9/2/2009	-14.5	-15	8.63E-02	U	8.63E-02	3.30E-01	1.74E+00	5.85E+01		
B6-1	86-30-6	SW8270C	9/2/2009	-0.5	-1	8.38E-02	U	8.38E-02	3.30E-01	1.74E+00	5.85E+01		
B6-2	86-30-6	SW8270C	9/2/2009	-14.5	-15	8.63E-02	U	8.63E-02	3.30E-01	1.74E+00	5.85E+01		
B7 0-1'	86-30-6	SW8270C	11/11/2009	0	-1	8.07E-02	U	8.07E-02	3.30E-01	1.74E+00	5.85E+01		
B7 14-15'	86-30-6	SW8270C	11/11/2009	-14	-15	8.32E-02	U	8.32E-02	3.30E-01	1.74E+00	5.85E+01		
B8-1	86-30-6	SW8270C	9/2/2009	-1	-1.5	8.54E-02	U	8.54E-02	3.30E-01	1.74E+00	5.85E+01		
B8-2	86-30-6	SW8270C	9/2/2009	-14	-15	8.31E-02	U	8.31E-02	3.30E-01	1.74E+00	5.85E+01		
B9 0-1'	86-30-6	SW8270C	11/11/2009	0	-1	8.52E-02	U	8.52E-02	3.30E-01	1.74E+00	5.85E+01		
B9 14-15'	86-30-6	SW8270C	11/11/2009	-14	-15	8.28E-02	U	8.28E-02	3.30E-01	1.74E+00	5.85E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

n-Propylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	103-65-1	SW8260B	8/31/2009	0	-1	1.12E-03	U	1.12E-03	5.00E-03	1.46E+02	3.21E+03		
B1 0-1'	103-65-1	SW8260B	11/11/2009	0	-1	1.67E-03	U	1.67E-03	5.00E-03	1.46E+02	3.21E+03		
B1 14-15'	103-65-1	SW8260B	11/11/2009	-14	-15	1.22E-03	U	1.22E-03	5.00E-03	1.46E+02	3.21E+03		
B10-1	103-65-1	SW8260B	9/2/2009	-2	-3	1.34E-03	U	1.34E-03	5.00E-03	1.46E+02	3.21E+03		
B10-2	103-65-1	SW8260B	9/2/2009	-13	-14	1.14E-03	U	1.14E-03	5.00E-03	1.46E+02	3.21E+03		
B2 1-1.5	103-65-1	SW8260B	9/1/2009	-1	-1.5	1.06E-03	U	1.06E-03	5.00E-03	1.46E+02	3.21E+03		
B2 21-22.5	103-65-1	SW8260B	9/1/2009	-21	-22.5	1.25E-03	U	1.25E-03	5.00E-03	1.46E+02	3.21E+03		
B3 12-13	103-65-1	SW8260B	8/31/2009	-12	-13	1.01E-03	U	1.01E-03	5.00E-03	1.46E+02	3.21E+03		
B3 2-3	103-65-1	SW8260B	8/31/2009	-2	-3	1.18E-03	U	1.18E-03	5.00E-03	1.46E+02	3.21E+03		
B4 14.5-15	103-65-1	SW8260B	9/1/2009	-14.5	-15	1.14E-03	U	1.14E-03	5.00E-03	1.46E+02	3.21E+03		
B4 2-2.5	103-65-1	SW8260B	9/1/2009	-2	-2.5	1.22E-03	U	1.22E-03	5.00E-03	1.46E+02	3.21E+03		
B5-1	103-65-1	SW8260B	9/2/2009	-1	-1.5	1.20E-03	U	1.20E-03	5.00E-03	1.46E+02	3.21E+03		
B5-2	103-65-1	SW8260B	9/2/2009	-14.5	-15	1.14E-03	U	1.14E-03	5.00E-03	1.46E+02	3.21E+03		
B6-1	103-65-1	SW8260B	9/2/2009	-0.5	-1	1.11E-03	U	1.11E-03	5.00E-03	1.46E+02	3.21E+03		
B6-2	103-65-1	SW8260B	9/2/2009	-14.5	-15	1.14E-03	U	1.14E-03	5.00E-03	1.46E+02	3.21E+03		
B7 0-1'	103-65-1	SW8260B	11/11/2009	0	-1	1.32E-03	U	1.32E-03	5.00E-03	1.46E+02	3.21E+03		
B7 14-15'	103-65-1	SW8260B	11/11/2009	-14	-15	1.44E-03	U	1.44E-03	5.00E-03	1.46E+02	3.21E+03		
B8-1	103-65-1	SW8260B	9/2/2009	-1	-1.5	1.13E-03	U	1.13E-03	5.00E-03	1.46E+02	3.21E+03		
B8-2	103-65-1	SW8260B	9/2/2009	-14	-15	1.10E-03	U	1.10E-03	5.00E-03	1.46E+02	3.21E+03		
B8-3	103-65-1	SW8260B	9/2/2009	-8	-8.5	1.19E-03	U	1.19E-03	5.00E-03	1.46E+02	3.21E+03		
B9 0-1'	103-65-1	SW8260B	11/11/2009	0	-1	1.55E-03	U	1.55E-03	5.00E-03	1.46E+02	3.21E+03		
B9 14-15'	103-65-1	SW8260B	11/11/2009	-14	-15	1.42E-03	U	1.42E-03	5.00E-03	1.46E+02	3.21E+03		

o-Xylene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	95-47-6	SW8260B	8/31/2009	0	-1	9.40E-04	U	9.40E-04	5.00E-03	1.00E+03	3.27E+04		
B1 0-1'	95-47-6	SW8260B	11/11/2009	0	-1	1.41E-03	U	1.41E-03	5.00E-03	1.00E+03	3.27E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

o-Xylene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 14-15'	95-47-6	SW8260B	11/11/2009	-14	-15	1.02E-03	U	1.02E-03	5.00E-03	1.00E+03	3.27E+04		
B10-1	95-47-6	SW8260B	9/2/2009	-2	-3	1.12E-03	U	1.12E-03	5.00E-03	1.00E+03	3.27E+04		
B10-2	95-47-6	SW8260B	9/2/2009	-13	-14	9.54E-04	U	9.54E-04	5.00E-03	1.00E+03	3.27E+04		
B2 1-1.5	95-47-6	SW8260B	9/1/2009	-1	-1.5	8.88E-04	U	8.88E-04	5.00E-03	1.00E+03	3.27E+04		
B2 21-22.5	95-47-6	SW8260B	9/1/2009	-21	-22.5	1.05E-03	U	1.05E-03	5.00E-03	1.00E+03	3.27E+04		
B3 12-13	95-47-6	SW8260B	8/31/2009	-12	-13	8.45E-04	U	8.45E-04	5.00E-03	1.00E+03	3.27E+04		
B3 2-3	95-47-6	SW8260B	8/31/2009	-2	-3	9.88E-04	U	9.88E-04	5.00E-03	1.00E+03	3.27E+04		
B4 14.5-15	95-47-6	SW8260B	9/1/2009	-14.5	-15	9.60E-04	U	9.60E-04	5.00E-03	1.00E+03	3.27E+04		
B4 2-2.5	95-47-6	SW8260B	9/1/2009	-2	-2.5	1.02E-03	U	1.02E-03	5.00E-03	1.00E+03	3.27E+04		
B5-1	95-47-6	SW8260B	9/2/2009	-1	-1.5	1.01E-03	U	1.01E-03	5.00E-03	1.00E+03	3.27E+04		
B5-2	95-47-6	SW8260B	9/2/2009	-14.5	-15	9.60E-04	U	9.60E-04	5.00E-03	1.00E+03	3.27E+04		
B6-1	95-47-6	SW8260B	9/2/2009	-0.5	-1	9.31E-04	U	9.31E-04	5.00E-03	1.00E+03	3.27E+04		
B6-2	95-47-6	SW8260B	9/2/2009	-14.5	-15	9.60E-04	U	9.60E-04	5.00E-03	1.00E+03	3.27E+04		
B7 0-1'	95-47-6	SW8260B	11/11/2009	0	-1	1.11E-03	U	1.11E-03	5.00E-03	1.00E+03	3.27E+04		
B7 14-15'	95-47-6	SW8260B	11/11/2009	-14	-15	1.21E-03	U	1.21E-03	5.00E-03	1.00E+03	3.27E+04		
B8-1	95-47-6	SW8260B	9/2/2009	-1	-1.5	9.50E-04	U	9.49E-04	5.00E-03	1.00E+03	3.27E+04		
B8-2	95-47-6	SW8260B	9/2/2009	-14	-15	9.23E-04	U	9.23E-04	5.00E-03	1.00E+03	3.27E+04		
B8-3	95-47-6	SW8260B	9/2/2009	-8	-8.5	1.00E-03	U	1.00E-03	5.00E-03	1.00E+03	3.27E+04		
B9 0-1'	95-47-6	SW8260B	11/11/2009	0	-1	1.30E-03	U	1.30E-03	5.00E-03	1.00E+03	3.27E+04		
B9 14-15'	95-47-6	SW8260B	11/11/2009	-14	-15	1.20E-03	U	1.20E-03	5.00E-03	1.00E+03	3.27E+04		

Pentachlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	87-86-5	SW8270C	8/31/2009	0	-1	1.46E-01	U	1.47E-01	3.30E-01	1.00E-01	3.01E+00		
B1 0-1	87-86-5	SW8270C	8/31/2009	0	-1	4.88E-02	U	4.88E-02	1.00E-01	1.00E-01	3.01E+00		
B1 0-1'	87-86-5	SW8270C	11/11/2009	0	-1	5.05E-02	U	5.05E-02	3.30E-01	1.00E-01	3.01E+00		
B1 14-15'	87-86-5	SW8270C	11/11/2009	-14	-15	4.54E-02	U	4.54E-02	3.30E-01	1.00E-01	3.01E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Pentachlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-1	87-86-5	SW8270C	9/2/2009	-2	-3	1.75E-01	U	1.75E-01	3.30E-01	1.00E-01	3.01E+00		
B10-1	87-86-5	SW8270C	9/2/2009	-2	-3	5.83E-02	U	5.83E-02	1.00E-01	1.00E-01	3.01E+00		
B10-2	87-86-5	SW8270C	9/2/2009	-13	-14	1.49E-01	U	1.49E-01	3.30E-01	1.00E-01	3.01E+00		
B10-2	87-86-5	SW8270C	9/2/2009	-13	-14	4.96E-02	U	4.96E-02	1.00E-01	1.00E-01	3.01E+00		
B2 1-1.5	87-86-5	SW8270C	9/1/2009	-1	-1.5	1.39E-01	U	1.38E-01	3.30E-01	1.00E-01	3.01E+00		
B2 1-1.5	87-86-5	SW8270C	9/1/2009	-1	-1.5	4.62E-02	U	4.62E-02	1.00E-01	1.00E-01	3.01E+00		
B2 21-22.5	87-86-5	SW8270C	9/1/2009	-21	-22.5	5.46E-02	U	5.46E-02	1.00E-01	1.00E-01	3.01E+00		
B2 21-22.5	87-86-5	SW8270C	9/1/2009	-21	-22.5	1.64E-01	U	1.64E-01	3.30E-01	1.00E-01	3.01E+00		
B3 12-13	87-86-5	SW8270C	8/31/2009	-12	-13	1.32E-01	U	1.32E-01	3.30E-01	1.00E-01	3.01E+00		
B3 12-13	87-86-5	SW8270C	8/31/2009	-12	-13	4.39E-02	U	4.39E-02	1.00E-01	1.00E-01	3.01E+00		
B3 2-3	87-86-5	SW8270C	8/31/2009	-2	-3	1.54E-01	U	1.54E-01	3.30E-01	1.00E-01	3.01E+00		
B3 2-3	87-86-5	SW8270C	8/31/2009	-2	-3	5.13E-02	U	5.13E-02	1.00E-01	1.00E-01	3.01E+00		
B4 14-14.5	87-86-5	SW8270C	9/1/2009	-14	-14.5	1.48E-01	U	1.48E-01	3.30E-01	1.00E-01	3.01E+00		
B4 14-14.5	87-86-5	SW8270C	9/1/2009	-14	-14.5	4.93E-02	U	4.93E-02	1.00E-01	1.00E-01	3.01E+00		
B4 2-2.5	87-86-5	SW8270C	9/1/2009	-2	-2.5	1.60E-01	U	1.60E-01	3.30E-01	1.00E-01	3.01E+00		
B4 2-2.5	87-86-5	SW8270C	9/1/2009	-2	-2.5	5.32E-02	U	5.32E-02	1.00E-01	1.00E-01	3.01E+00		
B5-1	87-86-5	SW8270C	9/2/2009	-1	-1.5	5.24E-02	U	5.24E-02	1.00E-01	1.00E-01	3.01E+00		
B5-1	87-86-5	SW8270C	9/2/2009	-1	-1.5	1.57E-01	U	1.57E-01	3.30E-01	1.00E-01	3.01E+00		
B5-2	87-86-5	SW8270C	9/2/2009	-14.5	-15	4.99E-02	U	4.99E-02	1.00E-01	1.00E-01	3.01E+00		
B5-2	87-86-5	SW8270C	9/2/2009	-14.5	-15	1.50E-01	U	1.50E-01	3.30E-01	1.00E-01	3.01E+00		
B6-1	87-86-5	SW8270C	9/2/2009	-0.5	-1	1.45E-01	U	1.45E-01	3.30E-01	1.00E-01	3.01E+00		
B6-1	87-86-5	SW8270C	9/2/2009	-0.5	-1	4.84E-02	U	4.84E-02	1.00E-01	1.00E-01	3.01E+00		
B6-2	87-86-5	SW8270C	9/2/2009	-14.5	-15	1.50E-01	U	1.50E-01	3.30E-01	1.00E-01	3.01E+00		
B6-2	87-86-5	SW8270C	9/2/2009	-14.5	-15	4.99E-02	U	4.99E-02	1.00E-01	1.00E-01	3.01E+00		
B7 0-1'	87-86-5	SW8270C	11/11/2009	0	-1	4.66E-02	U	4.66E-02	3.30E-01	1.00E-01	3.01E+00		
B7 14-15'	87-86-5	SW8270C	11/11/2009	-14	-15	4.81E-02	U	4.81E-02	3.30E-01	1.00E-01	3.01E+00		
B8-1	87-86-5	SW8270C	9/2/2009	-1	-1.5	4.94E-02	U	4.94E-02	1.00E-01	1.00E-01	3.01E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Pentachlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-1	87-86-5	SW8270C	9/2/2009	-1	-1.5	1.48E-01	U	1.48E-01	3.30E-01	1.00E-01	3.01E+00		
B8-2	87-86-5	SW8270C	9/2/2009	-14	-15	1.44E-01	U	1.44E-01	3.30E-01	1.00E-01	3.01E+00		
B8-2	87-86-5	SW8270C	9/2/2009	-14	-15	4.80E-02	U	4.80E-02	1.00E-01	1.00E-01	3.01E+00		
B9 0-1'	87-86-5	SW8270C	11/11/2009	0	-1	4.92E-02	U	4.92E-02	3.30E-01	1.00E-01	3.01E+00		
B9 14-15'	87-86-5	SW8270C	11/11/2009	-14	-15	4.78E-02	U	4.78E-02	3.30E-01	1.00E-01	3.01E+00		

Perchlorate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 1-2 FT	7790-98-9	EPA 314.0	8/31/2009	-1	-2	9.28E-03	U	9.28E-03	4.00E-03	2.56E+00	1.40E+02		
B1 13-14 FT	7790-98-9	EPA 314.0	8/31/2009	-13	-14	9.13E-03	U	9.13E-03	4.00E-03	2.56E+00	1.40E+02		
B10 1 - 2	7790-98-9	EPA 314.0	9/2/2009	-1	-2	9.51E-03	U	9.51E-03	4.00E-03	2.56E+00	1.40E+02		
B10 11.5 - 1	7790-98-9	EPA 314.0	9/2/2009	-11.5	-12	9.84E-03	U	9.84E-03	4.00E-03	2.56E+00	1.40E+02		
B2 0.5-1.0	7790-98-9	EPA 314.0	8/31/2009	-0.5	-1	8.98E-03	U	8.98E-03	4.00E-03	2.56E+00	1.40E+02		
B2 21-21.5	7790-98-9	EPA 314.0	8/31/2009	-21	-21.5	1.00E-02	U	1.00E-02	4.00E-03	2.56E+00	1.40E+02		
B3 1-2	7790-98-9	EPA 314.0	8/31/2009	-1	-2	9.25E-03	U	9.25E-03	4.00E-03	2.56E+00	1.40E+02		
B3 14-15	7790-98-9	EPA 314.0	8/31/2009	-14	-15	8.91E-03	U	8.91E-03	4.00E-03	2.56E+00	1.40E+02		
B4 13-14	7790-98-9	EPA 314.0	8/31/2009	-13	-14	9.24E-03	U	9.24E-03	4.00E-03	2.56E+00	1.40E+02		
B4 3-3.5	7790-98-9	EPA 314.0	8/31/2009	-3	-3.5	9.91E-03	U	9.91E-03	4.00E-03	2.56E+00	1.40E+02		
B5 14 - 14.	7790-98-9	EPA 314.0	9/2/2009	-14	-14.5	9.39E-03	U	9.39E-03	4.00E-03	2.56E+00	1.40E+02		
B5 0.5 - 1 M	7790-98-9	EPA 314.0	9/2/2009	-0.5	-1	9.78E-03	U	9.78E-03	4.00E-03	2.56E+00	1.40E+02		
B6 1 - 1.5	7790-98-9	EPA 314.0	9/2/2009	-1	-1.5	9.42E-03	U	9.42E-03	4.00E-03	2.56E+00	1.40E+02		
B6 14 - 14.5	7790-98-9	EPA 314.0	9/2/2009	-14	-14.5	9.22E-03	U	9.22E-03	4.00E-03	2.56E+00	1.40E+02		
B-7 0-1 FT	7790-98-9	EPA 314.0	8/31/2009	0	-1	8.70E-03	U	8.70E-03	4.00E-03	2.56E+00	1.40E+02		
B7 14-15 FT	7790-98-9	EPA 314.0	8/31/2009	-14	-15	8.87E-03	U	8.87E-03	4.00E-03	2.56E+00	1.40E+02		
B8 13 - 14	7790-98-9	EPA 314.0	9/2/2009	-13	-14	9.09E-03	U	9.09E-03	4.00E-03	2.56E+00	1.40E+02		
B8 2.75 - 3	7790-98-9	EPA 314.0	9/2/2009	-2.75	-3	1.01E-02	U	1.01E-02	4.00E-03	2.56E+00	1.40E+02		
B9 0-2 FT	7790-98-9	EPA 314.0	8/31/2009	0	-2	9.21E-03	U	9.21E-03	4.00E-03	2.56E+00	1.40E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Perchlorate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B9 14-15 FT	7790-98-9	EPA 314.0	8/31/2009	-14	-15	9.49E-03	U	9.49E-03	4.00E-03	2.56E+00	1.40E+02		

Phenanthrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	85-01-8	SW8270C	8/31/2009	0	-1	1.11E-01	U	1.11E-01	3.30E-01	1.10E+02	4.11E+03		
B1 0-1'	85-01-8	SW8270C	11/11/2009	0	-1	1.15E-01	U	1.15E-01	3.30E-01	1.10E+02	4.11E+03		
B1 14-15'	85-01-8	SW8270C	11/11/2009	-14	-15	1.04E-01	U	1.04E-01	3.30E-01	1.10E+02	4.11E+03		
B10-1	85-01-8	SW8270C	9/2/2009	-2	-3	1.33E-01	U	1.33E-01	3.30E-01	1.10E+02	4.11E+03		
B10-2	85-01-8	SW8270C	9/2/2009	-13	-14	1.13E-01	U	1.13E-01	3.30E-01	1.10E+02	4.11E+03		
B2 1-1.5	85-01-8	SW8270C	9/1/2009	-1	-1.5	1.05E-01	U	1.05E-01	3.30E-01	1.10E+02	4.11E+03		
B2 21-22.5	85-01-8	SW8270C	9/1/2009	-21	-22.5	1.25E-01	U	1.25E-01	3.30E-01	1.10E+02	4.11E+03		
B3 12-13	85-01-8	SW8270C	8/31/2009	-12	-13	1.00E-01	U	1.00E-01	3.30E-01	1.10E+02	4.11E+03		
B3 2-3	85-01-8	SW8270C	8/31/2009	-2	-3	1.17E-01	U	1.17E-01	3.30E-01	1.10E+02	4.11E+03		
B4 14-14.5	85-01-8	SW8270C	9/1/2009	-14	-14.5	1.12E-01	U	1.12E-01	3.30E-01	1.10E+02	4.11E+03		
B4 2-2.5	85-01-8	SW8270C	9/1/2009	-2	-2.5	1.21E-01	U	1.21E-01	3.30E-01	1.10E+02	4.11E+03		
B5-1	85-01-8	SW8270C	9/2/2009	-1	-1.5	1.20E-01	U	1.19E-01	3.30E-01	1.10E+02	4.11E+03		
B5-2	85-01-8	SW8270C	9/2/2009	-14.5	-15	1.14E-01	U	1.14E-01	3.30E-01	1.10E+02	4.11E+03		
B6-1	85-01-8	SW8270C	9/2/2009	-0.5	-1	1.10E-01	U	1.10E-01	3.30E-01	1.10E+02	4.11E+03		
B6-2	85-01-8	SW8270C	9/2/2009	-14.5	-15	1.14E-01	U	1.14E-01	3.30E-01	1.10E+02	4.11E+03		
B7 0-1'	85-01-8	SW8270C	11/11/2009	0	-1	1.06E-01	U	1.06E-01	3.30E-01	1.10E+02	4.11E+03		
B7 14-15'	85-01-8	SW8270C	11/11/2009	-14	-15	1.10E-01	U	1.10E-01	3.30E-01	1.10E+02	4.11E+03		
B8-1	85-01-8	SW8270C	9/2/2009	-1	-1.5	1.13E-01	U	1.13E-01	3.30E-01	1.10E+02	4.11E+03		
B8-2	85-01-8	SW8270C	9/2/2009	-14	-15	1.10E-01	U	1.09E-01	3.30E-01	1.10E+02	4.11E+03		
B9 0-1'	85-01-8	SW8270C	11/11/2009	0	-1	1.12E-01	U	1.12E-01	3.30E-01	1.10E+02	4.11E+03		
B9 14-15'	85-01-8	SW8270C	11/11/2009	-14	-15	1.09E-01	U	1.09E-01	3.30E-01	1.10E+02	4.11E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Phenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	108-95-2	SW8270C	8/31/2009	0	-1	1.64E-01	U	1.64E-01	3.30E-01	1.10E+03	4.65E+04		
B1 0-1'	108-95-2	SW8270C	11/11/2009	0	-1	1.70E-01	U	1.69E-01	3.30E-01	1.10E+03	4.65E+04		
B1 14-15'	108-95-2	SW8270C	11/11/2009	-14	-15	1.53E-01	U	1.53E-01	3.30E-01	1.10E+03	4.65E+04		
B10-1	108-95-2	SW8270C	9/2/2009	-2	-3	1.96E-01	U	1.96E-01	3.30E-01	1.10E+03	4.65E+04		
B10-2	108-95-2	SW8270C	9/2/2009	-13	-14	1.67E-01	U	1.66E-01	3.30E-01	1.10E+03	4.65E+04		
B2 1-1.5	108-95-2	SW8270C	9/1/2009	-1	-1.5	1.55E-01	U	1.55E-01	3.30E-01	1.10E+03	4.65E+04		
B2 21-22.5	108-95-2	SW8270C	9/1/2009	-21	-22.5	1.83E-01	U	1.83E-01	3.30E-01	1.10E+03	4.65E+04		
B3 12-13	108-95-2	SW8270C	8/31/2009	-12	-13	1.47E-01	U	1.47E-01	3.30E-01	1.10E+03	4.65E+04		
B3 2-3	108-95-2	SW8270C	8/31/2009	-2	-3	1.72E-01	U	1.72E-01	3.30E-01	1.10E+03	4.65E+04		
B4 14-14.5	108-95-2	SW8270C	9/1/2009	-14	-14.5	1.66E-01	U	1.65E-01	3.30E-01	1.10E+03	4.65E+04		
B4 2-2.5	108-95-2	SW8270C	9/1/2009	-2	-2.5	1.79E-01	U	1.79E-01	3.30E-01	1.10E+03	4.65E+04		
B5-1	108-95-2	SW8270C	9/2/2009	-1	-1.5	1.76E-01	U	1.76E-01	3.30E-01	1.10E+03	4.65E+04		
B5-2	108-95-2	SW8270C	9/2/2009	-14.5	-15	1.68E-01	U	1.67E-01	3.30E-01	1.10E+03	4.65E+04		
B6-1	108-95-2	SW8270C	9/2/2009	-0.5	-1	1.62E-01	U	1.62E-01	3.30E-01	1.10E+03	4.65E+04		
B6-2	108-95-2	SW8270C	9/2/2009	-14.5	-15	1.68E-01	U	1.67E-01	3.30E-01	1.10E+03	4.65E+04		
B7 0-1'	108-95-2	SW8270C	11/11/2009	0	-1	1.57E-01	U	1.57E-01	3.30E-01	1.10E+03	4.65E+04		
B7 14-15'	108-95-2	SW8270C	11/11/2009	-14	-15	1.61E-01	U	1.61E-01	3.30E-01	1.10E+03	4.65E+04		
B8-1	108-95-2	SW8270C	9/2/2009	-1	-1.5	1.66E-01	U	1.66E-01	3.30E-01	1.10E+03	4.65E+04		
B8-2	108-95-2	SW8270C	9/2/2009	-14	-15	1.61E-01	U	1.61E-01	3.30E-01	1.10E+03	4.65E+04		
B9 0-1'	108-95-2	SW8270C	11/11/2009	0	-1	1.65E-01	U	1.65E-01	3.30E-01	1.10E+03	4.65E+04		
B9 14-15'	108-95-2	SW8270C	11/11/2009	-14	-15	1.61E-01	U	1.61E-01	3.30E-01	1.10E+03	4.65E+04		

Potassium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-09-7	SW6010B	8/31/2009	0	-1	1.09E+03		5.48E+00	1.00E+01			2.00E+02	4.44E+02
B1 0-1'	7440-09-7	SW6010B	11/11/2009	0	-1	1.16E+03		5.66E+00	2.50E+01			2.00E+02	4.44E+02
B1 14-15'	7440-09-7	SW6010B	11/11/2009	-14	-15	3.69E+02		5.10E+00	2.50E+01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Potassium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-1	7440-09-7	SW6010B	9/2/2009	-2	-3	9.63E+02		6.53E+00	1.00E+01			3.06E+02	4.95E+02
B10-2	7440-09-7	SW6010B	9/2/2009	-13	-14	7.20E+02		5.56E+00	1.00E+01				
B2 1-1.5	7440-09-7	SW6010B	9/1/2009	-1	-1.5	1.36E+03		5.18E+00	1.00E+01			3.06E+02	4.95E+02
B2 21-22.5	7440-09-7	SW6010B	9/1/2009	-21	-22.5	1.57E+03		6.12E+00	1.00E+01				
B3 12-13	7440-09-7	SW6010B	8/31/2009	-12	-13	2.31E+03		4.93E+00	1.00E+01				
B3 2-3	7440-09-7	SW6010B	8/31/2009	-2	-3	1.83E+03		5.76E+00	1.00E+01			3.06E+02	4.95E+02
B4 14-14.5	7440-09-7	SW6010B	9/1/2009	-14	-14.5	6.96E+02		5.53E+00	1.00E+01				
B4 2-2.5	7440-09-7	SW6010B	9/1/2009	-2	-2.5	4.74E+01		5.97E+00	1.00E+01			3.06E+02	4.95E+02
B5-1	7440-09-7	SW6010B	9/2/2009	-1	-1.5	2.53E+03		5.87E+00	1.00E+01			3.06E+02	4.95E+02
B5-2	7440-09-7	SW6010B	9/2/2009	-14.5	-15	1.11E+03		5.59E+00	1.00E+01				
B6-1	7440-09-7	SW6010B	9/2/2009	-0.5	-1	1.17E+03		5.43E+00	1.00E+01			2.00E+02	4.44E+02
B6-2	7440-09-7	SW6010B	9/2/2009	-14.5	-15	1.03E+03		5.59E+00	1.00E+01				
B7 0-1'	7440-09-7	SW6010B	11/11/2009	0	-1	4.36E+02		5.23E+00	2.50E+01			2.00E+02	4.44E+02
B7 14-15'	7440-09-7	SW6010B	11/11/2009	-14	-15	4.65E+02		5.39E+00	2.50E+01				
B8-1	7440-09-7	SW6010B	9/2/2009	-1	-1.5	7.96E+02		5.53E+00	1.00E+01			3.06E+02	4.95E+02
B8-2	7440-09-7	SW6010B	9/2/2009	-14	-15	6.93E+02		5.38E+00	1.00E+01				
B9 0-1'	7440-09-7	SW6010B	11/11/2009	0	-1	4.28E+02		5.52E+00	2.50E+01			2.00E+02	4.44E+02
B9 14-15'	7440-09-7	SW6010B	11/11/2009	-14	-15	5.13E+02		5.36E+00	2.50E+01				

Pyrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	129-00-0	SW8270C	8/31/2009	0	-1	9.30E-02	U	9.30E-02	3.30E-01	1.10E+02	4.11E+03		
B1 0-1'	129-00-0	SW8270C	11/11/2009	0	-1	9.62E-02	U	9.62E-02	3.30E-01	1.10E+02	4.11E+03		
B1 14-15'	129-00-0	SW8270C	11/11/2009	-14	-15	8.66E-02	U	8.66E-02	3.30E-01	1.10E+02	4.11E+03		
B10-1	129-00-0	SW8270C	9/2/2009	-2	-3	1.11E-01	U	1.11E-01	3.30E-01	1.10E+02	4.11E+03		
B10-2	129-00-0	SW8270C	9/2/2009	-13	-14	9.45E-02	U	9.45E-02	3.30E-01	1.10E+02	4.11E+03		
B2 1-1.5	129-00-0	SW8270C	9/1/2009	-1	-1.5	8.79E-02	U	8.79E-02	3.30E-01	1.10E+02	4.11E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Pyrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B2 21-22.5	129-00-0	SW8270C	9/1/2009	-21	-22.5	1.04E-01	U	1.04E-01	3.30E-01	1.10E+02	4.11E+03		
B3 12-13	129-00-0	SW8270C	8/31/2009	-12	-13	8.37E-02	U	8.37E-02	3.30E-01	1.10E+02	4.11E+03		
B3 2-3	129-00-0	SW8270C	8/31/2009	-2	-3	9.78E-02	U	9.78E-02	3.30E-01	1.10E+02	4.11E+03		
B4 14-14.5	129-00-0	SW8270C	9/1/2009	-14	-14.5	9.39E-02	U	9.39E-02	3.30E-01	1.10E+02	4.11E+03		
B4 2-2.5	129-00-0	SW8270C	9/1/2009	-2	-2.5	1.01E-01	U	1.01E-01	3.30E-01	1.10E+02	4.11E+03		
B5-1	129-00-0	SW8270C	9/2/2009	-1	-1.5	9.98E-02	U	9.98E-02	3.30E-01	1.10E+02	4.11E+03		
B5-2	129-00-0	SW8270C	9/2/2009	-14.5	-15	9.50E-02	U	9.50E-02	3.30E-01	1.10E+02	4.11E+03		
B6-1	129-00-0	SW8270C	9/2/2009	-0.5	-1	9.22E-02	U	9.22E-02	3.30E-01	1.10E+02	4.11E+03		
B6-2	129-00-0	SW8270C	9/2/2009	-14.5	-15	9.50E-02	U	9.50E-02	3.30E-01	1.10E+02	4.11E+03		
B7 0-1'	129-00-0	SW8270C	11/11/2009	0	-1	8.88E-02	U	8.88E-02	3.30E-01	1.10E+02	4.11E+03		
B7 14-15'	129-00-0	SW8270C	11/11/2009	-14	-15	9.15E-02	U	9.15E-02	3.30E-01	1.10E+02	4.11E+03		
B8-1	129-00-0	SW8270C	9/2/2009	-1	-1.5	9.40E-02	U	9.40E-02	3.30E-01	1.10E+02	4.11E+03		
B8-2	129-00-0	SW8270C	9/2/2009	-14	-15	9.14E-02	U	9.14E-02	3.30E-01	1.10E+02	4.11E+03		
B9 0-1'	129-00-0	SW8270C	11/11/2009	0	-1	9.38E-02	U	9.38E-02	3.30E-01	1.10E+02	4.11E+03		
B9 14-15'	129-00-0	SW8270C	11/11/2009	-14	-15	9.11E-02	U	9.11E-02	3.30E-01	1.10E+02	4.11E+03		

Pyridine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	110-86-1	SW8270C	8/31/2009	0	-1	1.84E-01	U	1.84E-01	3.30E-01	3.65E+00	8.22E+00		
B1 0-1'	110-86-1	SW8270C	11/11/2009	0	-1	1.90E-01	U	1.90E-01	3.30E-01	3.65E+00	8.22E+00		
B1 14-15'	110-86-1	SW8270C	11/11/2009	-14	-15	1.71E-01	U	1.71E-01	3.30E-01	3.65E+00	8.22E+00		
B10-1	110-86-1	SW8270C	9/2/2009	-2	-3	2.19E-01	U	2.19E-01	3.30E-01	3.65E+00	8.22E+00		
B10-2	110-86-1	SW8270C	9/2/2009	-13	-14	1.87E-01	U	1.87E-01	3.30E-01	3.65E+00	8.22E+00		
B2 1-1.5	110-86-1	SW8270C	9/1/2009	-1	-1.5	1.74E-01	U	1.74E-01	3.30E-01	3.65E+00	8.22E+00		
B2 21-22.5	110-86-1	SW8270C	9/1/2009	-21	-22.5	2.05E-01	U	2.05E-01	3.30E-01	3.65E+00	8.22E+00		
B3 12-13	110-86-1	SW8270C	8/31/2009	-12	-13	1.65E-01	U	1.65E-01	3.30E-01	3.65E+00	8.22E+00		
B3 2-3	110-86-1	SW8270C	8/31/2009	-2	-3	1.93E-01	U	1.93E-01	3.30E-01	3.65E+00	8.22E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Pyridine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 14-14.5	110-86-1	SW8270C	9/1/2009	-14	-14.5	1.85E-01	U	1.85E-01	3.30E-01	3.65E+00	8.22E+00		
B4 2-2.5	110-86-1	SW8270C	9/1/2009	-2	-2.5	2.00E-01	U	2.00E-01	3.30E-01	3.65E+00	8.22E+00		
B5-1	110-86-1	SW8270C	9/2/2009	-1	-1.5	1.97E-01	U	1.97E-01	3.30E-01	3.65E+00	8.22E+00		
B5-2	110-86-1	SW8270C	9/2/2009	-14.5	-15	1.88E-01	U	1.88E-01	3.30E-01	3.65E+00	8.22E+00		
B6-1	110-86-1	SW8270C	9/2/2009	-0.5	-1	1.82E-01	U	1.82E-01	3.30E-01	3.65E+00	8.22E+00		
B6-2	110-86-1	SW8270C	9/2/2009	-14.5	-15	1.88E-01	U	1.88E-01	3.30E-01	3.65E+00	8.22E+00		
B7 0-1'	110-86-1	SW8270C	11/11/2009	0	-1	1.75E-01	U	1.75E-01	3.30E-01	3.65E+00	8.22E+00		
B7 14-15'	110-86-1	SW8270C	11/11/2009	-14	-15	1.81E-01	U	1.81E-01	3.30E-01	3.65E+00	8.22E+00		
B8-1	110-86-1	SW8270C	9/2/2009	-1	-1.5	1.86E-01	U	1.86E-01	3.30E-01	3.65E+00	8.22E+00		
B8-2	110-86-1	SW8270C	9/2/2009	-14	-15	1.81E-01	U	1.81E-01	3.30E-01	3.65E+00	8.22E+00		
B9 0-1'	110-86-1	SW8270C	11/11/2009	0	-1	1.85E-01	U	1.85E-01	3.30E-01	3.65E+00	8.22E+00		
B9 14-15'	110-86-1	SW8270C	11/11/2009	-14	-15	1.80E-01	U	1.80E-01	3.30E-01	3.65E+00	8.22E+00		

RDX

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 1-2 FT	121-82-4	SW-846 83	8/31/2009	-1	-2	9.21E-01	U	9.21E-01	1.00E-01	7.74E-01	3.59E+01		
B1 13-14	121-82-4	SW-846 83	8/31/2009	-13	-14	9.21E-01	U	9.21E-01	1.00E-01	7.74E-01	3.59E+01		
B10 1 - 2	121-82-4	SW-846 83	9/2/2009	-1	-2	1.09E+00	U	1.09E+00	1.00E-01	7.74E-01	3.59E+01		
B10 11.5 - 1	121-82-4	SW-846 83	9/2/2009	-11.5	-12	1.13E+00	U	1.13E+00	1.00E-01	7.74E-01	3.59E+01		
B2 0.5-1.0	121-82-4	SW-846 83	9/1/2009	-0.5	-1	9.21E-01	U	9.21E-01	1.00E-01	7.74E-01	3.59E+01		
B2 21-21.5	121-82-4	SW-846 83	9/1/2009	-21	-21.5	9.21E-01	U	9.21E-01	1.00E-01	7.74E-01	3.59E+01		
B3 0-1	121-82-4	SW-846 83	8/31/2009	0	-1	9.21E-01	U	9.21E-01	1.00E-01	7.74E-01	3.59E+01		
B3 14-15	121-82-4	SW-846 83	8/31/2009	-14	-15	9.21E-01	U	9.21E-01	1.00E-01	7.74E-01	3.59E+01		
B4 13-14	121-82-4	SW-846 83	9/1/2009	-13	-14	9.21E-01	U	9.21E-01	1.00E-01	7.74E-01	3.59E+01		
B4 3-3.5	121-82-4	SW-846 83	9/1/2009	-3	-3.5	9.21E-01	U	9.21E-01	1.00E-01	7.74E-01	3.59E+01		
B5 14 - 14.	121-82-4	SW-846 83	9/2/2009	-14	-14.5	1.08E+00	U	1.08E+00	1.00E-01	7.74E-01	3.59E+01		
B5 0.5 - 1 M	121-82-4	SW-846 83	9/2/2009	-0.5	-1	1.12E+00	U	1.12E+00	1.00E-01	7.74E-01	3.59E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

RDX

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B6 1 - 1.5	121-82-4	SW-846 83	9/2/2009	-1	-1.5	1.08E+00	U	1.08E+00	1.00E-01	7.74E-01	3.59E+01		
B6 14 - 14.5	121-82-4	SW-846 83	9/2/2009	-14	-14.5	1.06E+00	U	1.06E+00	1.00E-01	7.74E-01	3.59E+01		
B7 0-1 FT	121-82-4	SW-846 83	8/31/2009	0	-1	9.21E-01	U	9.21E-01	1.00E-01	7.74E-01	3.59E+01		
B7 14-15	121-82-4	SW-846 83	8/31/2009	-14	-15	9.21E-01	U	9.21E-01	1.00E-01	7.74E-01	3.59E+01		
B8 13 - 14	121-82-4	SW-846 83	9/2/2009	-13	-14	1.05E+00	U	1.05E+00	1.00E-01	7.74E-01	3.59E+01		
B8 2.75 - 3	121-82-4	SW-846 83	9/2/2009	-2.75	-3	1.16E+00	U	1.16E+00	1.00E-01	7.74E-01	3.59E+01		
B9 14-15	121-82-4	SW-846 83	8/31/2009	-14	-15	9.21E-01	U	9.21E-01	1.00E-01	7.74E-01	3.59E+01		
B9-0-2 FT	121-82-4	SW-846 83	8/31/2009	0	-2	9.21E-01	U	9.21E-01	1.00E-01	7.74E-01	3.59E+01		

sec-Butylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	135-98-8	SW8260B	8/31/2009	0	-1	1.55E-03	U	1.55E-03	5.00E-03	1.46E+02	3.00E+03		
B1 0-1'	135-98-8	SW8260B	11/11/2009	0	-1	2.31E-03	U	2.31E-03	5.00E-03	1.46E+02	3.00E+03		
B1 14-15'	135-98-8	SW8260B	11/11/2009	-14	-15	1.69E-03	U	1.69E-03	5.00E-03	1.46E+02	3.00E+03		
B10-1	135-98-8	SW8260B	9/2/2009	-2	-3	1.84E-03	U	1.84E-03	5.00E-03	1.46E+02	3.00E+03		
B10-2	135-98-8	SW8260B	9/2/2009	-13	-14	1.57E-03	U	1.57E-03	5.00E-03	1.46E+02	3.00E+03		
B2 1-1.5	135-98-8	SW8260B	9/1/2009	-1	-1.5	1.46E-03	U	1.46E-03	5.00E-03	1.46E+02	3.00E+03		
B2 21-22.5	135-98-8	SW8260B	9/1/2009	-21	-22.5	1.73E-03	U	1.73E-03	5.00E-03	1.46E+02	3.00E+03		
B3 12-13	135-98-8	SW8260B	8/31/2009	-12	-13	1.39E-03	U	1.39E-03	5.00E-03	1.46E+02	3.00E+03		
B3 2-3	135-98-8	SW8260B	8/31/2009	-2	-3	1.63E-03	U	1.63E-03	5.00E-03	1.46E+02	3.00E+03		
B4 14.5-15	135-98-8	SW8260B	9/1/2009	-14.5	-15	1.58E-03	U	1.58E-03	5.00E-03	1.46E+02	3.00E+03		
B4 2-2.5	135-98-8	SW8260B	9/1/2009	-2	-2.5	1.69E-03	U	1.69E-03	5.00E-03	1.46E+02	3.00E+03		
B5-1	135-98-8	SW8260B	9/2/2009	-1	-1.5	1.66E-03	U	1.66E-03	5.00E-03	1.46E+02	3.00E+03		
B5-2	135-98-8	SW8260B	9/2/2009	-14.5	-15	1.58E-03	U	1.58E-03	5.00E-03	1.46E+02	3.00E+03		
B6-1	135-98-8	SW8260B	9/2/2009	-0.5	-1	1.53E-03	U	1.53E-03	5.00E-03	1.46E+02	3.00E+03		
B6-2	135-98-8	SW8260B	9/2/2009	-14.5	-15	1.58E-03	U	1.58E-03	5.00E-03	1.46E+02	3.00E+03		
B7 0-1'	135-98-8	SW8260B	11/11/2009	0	-1	1.82E-03	U	1.82E-03	5.00E-03	1.46E+02	3.00E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

sec-Butylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 14-15'	135-98-8	SW8260B	11/11/2009	-14	-15	1.99E-03	U	1.99E-03	5.00E-03	1.46E+02	3.00E+03		
B8-1	135-98-8	SW8260B	9/2/2009	-1	-1.5	1.56E-03	U	1.56E-03	5.00E-03	1.46E+02	3.00E+03		
B8-2	135-98-8	SW8260B	9/2/2009	-14	-15	1.52E-03	U	1.52E-03	5.00E-03	1.46E+02	3.00E+03		
B8-3	135-98-8	SW8260B	9/2/2009	-8	-8.5	1.65E-03	U	1.65E-03	5.00E-03	1.46E+02	3.00E+03		
B9 0-1'	135-98-8	SW8260B	11/11/2009	0	-1	2.15E-03	U	2.15E-03	5.00E-03	1.46E+02	3.00E+03		
B9 14-15'	135-98-8	SW8260B	11/11/2009	-14	-15	1.96E-03	U	1.96E-03	5.00E-03	1.46E+02	3.00E+03		

Selenium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7782-49-2	SW6010B	8/31/2009	0	-1	1.15E+00	U	1.15E+00	2.00E+00	5.00E+00	1.27E+03		
B1 0-1'	7782-49-2	SW6010B	11/11/2009	0	-1	9.38E-01	U	9.38E-01	2.00E+00	5.00E+00	1.27E+03		
B1 14-15'	7782-49-2	SW6010B	11/11/2009	-14	-15	8.44E-01	U	8.44E-01	2.00E+00	5.00E+00	1.27E+03		
B10-1	7782-49-2	SW6010B	9/2/2009	-2	-3	1.37E+00	U	1.37E+00	2.00E+00	5.00E+00	1.27E+03		
B10-2	7782-49-2	SW6010B	9/2/2009	-13	-14	1.17E+00	U	1.17E+00	2.00E+00	5.00E+00	1.27E+03		
B2 1-1.5	7782-49-2	SW6010B	9/1/2009	-1	-1.5	1.09E+00	U	1.09E+00	2.00E+00	5.00E+00	1.27E+03		
B2 21-22.5	7782-49-2	SW6010B	9/1/2009	-21	-22.5	1.29E+00	U	1.29E+00	2.00E+00	5.00E+00	1.27E+03		
B3 12-13	7782-49-2	SW6010B	8/31/2009	-12	-13	1.04E+00	U	1.04E+00	2.00E+00	5.00E+00	1.27E+03		
B3 2-3	7782-49-2	SW6010B	8/31/2009	-2	-3	1.21E+00	U	1.21E+00	2.00E+00	5.00E+00	1.27E+03		
B4 14-14.5	7782-49-2	SW6010B	9/1/2009	-14	-14.5	1.16E+00	U	1.16E+00	2.00E+00	5.00E+00	1.27E+03		
B4 2-2.5	7782-49-2	SW6010B	9/1/2009	-2	-2.5	1.25E+00	U	1.25E+00	2.00E+00	5.00E+00	1.27E+03		
B5-1	7782-49-2	SW6010B	9/2/2009	-1	-1.5	1.23E+00	U	1.23E+00	2.00E+00	5.00E+00	1.27E+03		
B5-2	7782-49-2	SW6010B	9/2/2009	-14.5	-15	1.18E+00	U	1.18E+00	2.00E+00	5.00E+00	1.27E+03		
B6-1	7782-49-2	SW6010B	9/2/2009	-0.5	-1	1.14E+00	U	1.14E+00	2.00E+00	5.00E+00	1.27E+03		
B6-2	7782-49-2	SW6010B	9/2/2009	-14.5	-15	1.18E+00	U	1.18E+00	2.00E+00	5.00E+00	1.27E+03		
B7 0-1'	7782-49-2	SW6010B	11/11/2009	0	-1	8.66E-01	U	8.66E-01	2.00E+00	5.00E+00	1.27E+03		
B7 14-15'	7782-49-2	SW6010B	11/11/2009	-14	-15	8.92E-01	U	8.92E-01	2.00E+00	5.00E+00	1.27E+03		
B8-1	7782-49-2	SW6010B	9/2/2009	-1	-1.5	1.16E+00	U	1.16E+00	2.00E+00	5.00E+00	1.27E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Selenium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-2	7782-49-2	SW6010B	9/2/2009	-14	-15	1.13E+00	U	1.13E+00	2.00E+00	5.00E+00	1.27E+03		
B9 0-1'	7782-49-2	SW6010B	11/11/2009	0	-1	9.14E-01	U	9.14E-01	2.00E+00	5.00E+00	1.27E+03		
B9 14-15'	7782-49-2	SW6010B	11/11/2009	-14	-15	8.88E-01	U	8.88E-01	2.00E+00	5.00E+00	1.27E+03		

Silver

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-22-4	SW6010B	8/31/2009	0	-1	5.58E-01	U	5.58E-01	1.00E+00	1.83E+01	4.68E+02		
B1 0-1'	7440-22-4	SW6010B	11/11/2009	0	-1	5.77E-01	U	5.77E-01	1.00E+00	1.83E+01	4.68E+02		
B1 14-15'	7440-22-4	SW6010B	11/11/2009	-14	-15	5.19E-01	U	5.19E-01	1.00E+00	1.83E+01	4.68E+02		
B10-1	7440-22-4	SW6010B	9/2/2009	-2	-3	6.66E-01	U	6.66E-01	1.00E+00	1.83E+01	4.68E+02		
B10-2	7440-22-4	SW6010B	9/2/2009	-13	-14	5.67E-01	U	5.67E-01	1.00E+00	1.83E+01	4.68E+02		
B2 1-1.5	7440-22-4	SW6010B	9/1/2009	-1	-1.5	5.27E-01	U	5.27E-01	1.00E+00	1.83E+01	4.68E+02		
B2 21-22.5	7440-22-4	SW6010B	9/1/2009	-21	-22.5	6.24E-01	U	6.24E-01	1.00E+00	1.83E+01	4.68E+02		
B3 12-13	7440-22-4	SW6010B	8/31/2009	-12	-13	5.02E-01	U	5.02E-01	1.00E+00	1.83E+01	4.68E+02		
B3 2-3	7440-22-4	SW6010B	8/31/2009	-2	-3	5.87E-01	U	5.87E-01	1.00E+00	1.83E+01	4.68E+02		
B4 14-14.5	7440-22-4	SW6010B	9/1/2009	-14	-14.5	5.63E-01	U	5.63E-01	1.00E+00	1.83E+01	4.68E+02		
B4 2-2.5	7440-22-4	SW6010B	9/1/2009	-2	-2.5	6.08E-01	U	6.08E-01	1.00E+00	1.83E+01	4.68E+02		
B5-1	7440-22-4	SW6010B	9/2/2009	-1	-1.5	5.99E-01	U	5.99E-01	1.00E+00	1.83E+01	4.68E+02		
B5-2	7440-22-4	SW6010B	9/2/2009	-14.5	-15	5.70E-01	U	5.70E-01	1.00E+00	1.83E+01	4.68E+02		
B6-1	7440-22-4	SW6010B	9/2/2009	-0.5	-1	5.53E-01	U	5.53E-01	1.00E+00	1.83E+01	4.68E+02		
B6-2	7440-22-4	SW6010B	9/2/2009	-14.5	-15	5.70E-01	U	5.70E-01	1.00E+00	1.83E+01	4.68E+02		
B7 0-1'	7440-22-4	SW6010B	11/11/2009	0	-1	5.33E-01	U	5.33E-01	1.00E+00	1.83E+01	4.68E+02		
B7 14-15'	7440-22-4	SW6010B	11/11/2009	-14	-15	5.49E-01	U	5.49E-01	1.00E+00	1.83E+01	4.68E+02		
B8-1	7440-22-4	SW6010B	9/2/2009	-1	-1.5	5.64E-01	U	5.64E-01	1.00E+00	1.83E+01	4.68E+02		
B8-2	7440-22-4	SW6010B	9/2/2009	-14	-15	5.49E-01	U	5.49E-01	1.00E+00	1.83E+01	4.68E+02		
B9 0-1'	7440-22-4	SW6010B	11/11/2009	0	-1	5.63E-01	U	5.63E-01	1.00E+00	1.83E+01	4.68E+02		
B9 14-15'	7440-22-4	SW6010B	11/11/2009	-14	-15	5.47E-01	U	5.47E-01	1.00E+00	1.83E+01	4.68E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Sodium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-23-5	SW6010B	8/31/2009	0	-1	6.85E+01		8.72E-01	2.00E+00			2.43E+01	1.07E+02
B1 0-1'	7440-23-5	SW6010B	11/11/2009	0	-1	2.27E+01		2.52E+00	5.00E+00			2.43E+01	1.07E+02
B1 14-15'	7440-23-5	SW6010B	11/11/2009	-14	-15	4.81E+02		2.27E+00	5.00E+00				
B10-1	7440-23-5	SW6010B	9/2/2009	-2	-3	3.08E+02		1.04E+00	2.00E+00			7.14E+01	1.91E+02
B10-2	7440-23-5	SW6010B	9/2/2009	-13	-14	6.39E+02		8.85E-01	2.00E+00				
B2 1-1.5	7440-23-5	SW6010B	9/1/2009	-1	-1.5	9.45E+01		8.24E-01	2.00E+00			7.14E+01	1.91E+02
B2 21-22.5	7440-23-5	SW6010B	9/1/2009	-21	-22.5	9.17E+02		9.75E-01	2.00E+00				
B3 12-13	7440-23-5	SW6010B	8/31/2009	-12	-13	2.52E+02		7.84E-01	2.00E+00				
B3 2-3	7440-23-5	SW6010B	8/31/2009	-2	-3	1.70E+02		9.17E-01	2.00E+00			7.14E+01	1.91E+02
B4 14-14.5	7440-23-5	SW6010B	9/1/2009	-14	-14.5	7.24E+02		8.80E-01	2.00E+00				
B4 2-2.5	7440-23-5	SW6010B	9/1/2009	-2	-2.5	2.21E+02		9.51E-01	2.00E+00			7.14E+01	1.91E+02
B5-1	7440-23-5	SW6010B	9/2/2009	-1	-1.5	2.92E+02		9.35E-01	2.00E+00			7.14E+01	1.91E+02
B5-2	7440-23-5	SW6010B	9/2/2009	-14.5	-15	7.58E+02		8.91E-01	2.00E+00				
B6-1	7440-23-5	SW6010B	9/2/2009	-0.5	-1	1.02E+02		8.64E-01	2.00E+00			2.43E+01	1.07E+02
B6-2	7440-23-5	SW6010B	9/2/2009	-14.5	-15	5.43E+02		8.91E-01	2.00E+00				
B7 0-1'	7440-23-5	SW6010B	11/11/2009	0	-1	4.04E+02		2.33E+00	5.00E+00			2.43E+01	1.07E+02
B7 14-15'	7440-23-5	SW6010B	11/11/2009	-14	-15	2.40E+00	U	2.40E+00	5.00E+00				
B8-1	7440-23-5	SW6010B	9/2/2009	-1	-1.5	8.81E-01	U	8.81E-01	2.00E+00			7.14E+01	1.91E+02
B8-2	7440-23-5	SW6010B	9/2/2009	-14	-15	4.37E+02		8.57E-01	2.00E+00				
B9 0-1'	7440-23-5	SW6010B	11/11/2009	0	-1	2.46E+00	U	2.46E+00	5.00E+00			2.43E+01	1.07E+02
B9 14-15'	7440-23-5	SW6010B	11/11/2009	-14	-15	4.32E+02		2.39E+00	5.00E+00				

Strontium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-24-6	SW6010B	8/31/2009	0	-1	5.00E-01	U	5.00E-01	1.00E+00	2.19E+03	1.19E+05		
B1 0-1'	7440-24-6	SW6010B	11/11/2009	0	-1	5.17E-01	U	5.17E-01	1.00E+00	2.19E+03	1.19E+05		
B1 14-15'	7440-24-6	SW6010B	11/11/2009	-14	-15	4.65E-01	U	4.65E-01	1.00E+00	2.19E+03	1.19E+05		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Strontium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-1	7440-24-6	SW6010B	9/2/2009	-2	-3	5.96E-01	U	5.96E-01	1.00E+00	2.19E+03	1.19E+05		
B10-2	7440-24-6	SW6010B	9/2/2009	-13	-14	5.08E-01	U	5.08E-01	1.00E+00	2.19E+03	1.19E+05		
B2 1-1.5	7440-24-6	SW6010B	9/1/2009	-1	-1.5	4.72E-01	U	4.73E-01	1.00E+00	2.19E+03	1.19E+05		
B2 21-22.5	7440-24-6	SW6010B	9/1/2009	-21	-22.5	5.59E-01	U	5.59E-01	1.00E+00	2.19E+03	1.19E+05		
B5-1	7440-24-6	SW6010B	9/2/2009	-1	-1.5	5.36E-01	U	5.36E-01	1.00E+00	2.19E+03	1.19E+05		
B5-2	7440-24-6	SW6010B	9/2/2009	-14.5	-15	5.11E-01	U	5.11E-01	1.00E+00	2.19E+03	1.19E+05		
B6-1	7440-24-6	SW6010B	9/2/2009	-0.5	-1	4.95E-01	U	4.95E-01	1.00E+00	2.19E+03	1.19E+05		
B6-2	7440-24-6	SW6010B	9/2/2009	-14.5	-15	5.11E-01	U	5.11E-01	1.00E+00	2.19E+03	1.19E+05		
B7 0-1'	7440-24-6	SW6010B	11/11/2009	0	-1	4.77E-01	U	4.77E-01	1.00E+00	2.19E+03	1.19E+05		
B7 14-15'	7440-24-6	SW6010B	11/11/2009	-14	-15	4.92E-01	U	4.92E-01	1.00E+00	2.19E+03	1.19E+05		
B8-1	7440-24-6	SW6010B	9/2/2009	-1	-1.5	5.05E-01	U	5.05E-01	1.00E+00	2.19E+03	1.19E+05		
B8-2	7440-24-6	SW6010B	9/2/2009	-14	-15	4.91E-01	U	4.91E-01	1.00E+00	2.19E+03	1.19E+05		
B9 0-1'	7440-24-6	SW6010B	11/11/2009	0	-1	5.04E-01	U	5.04E-01	1.00E+00	2.19E+03	1.19E+05		
B9 14-15'	7440-24-6	SW6010B	11/11/2009	-14	-15	4.90E-01	U	4.90E-01	1.00E+00	2.19E+03	1.19E+05		

Styrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	100-42-5	SW8260B	8/31/2009	0	-1	9.71E-04	U	9.71E-04	5.00E-03	1.00E+01	1.31E+04		
B1 0-1'	100-42-5	SW8260B	11/11/2009	0	-1	1.44E-03	U	1.44E-03	5.00E-03	1.00E+01	1.31E+04		
B1 14-15'	100-42-5	SW8260B	11/11/2009	-14	-15	1.06E-03	U	1.06E-03	5.00E-03	1.00E+01	1.31E+04		
B10-1	100-42-5	SW8260B	9/2/2009	-2	-3	1.16E-03	U	1.16E-03	5.00E-03	1.00E+01	1.31E+04		
B10-2	100-42-5	SW8260B	9/2/2009	-13	-14	9.86E-04	U	9.86E-04	5.00E-03	1.00E+01	1.31E+04		
B2 1-1.5	100-42-5	SW8260B	9/1/2009	-1	-1.5	9.18E-04	U	9.18E-04	5.00E-03	1.00E+01	1.31E+04		
B2 21-22.5	100-42-5	SW8260B	9/1/2009	-21	-22.5	1.09E-03	U	1.09E-03	5.00E-03	1.00E+01	1.31E+04		
B3 12-13	100-42-5	SW8260B	8/31/2009	-12	-13	8.73E-04	U	8.73E-04	5.00E-03	1.00E+01	1.31E+04		
B3 2-3	100-42-5	SW8260B	8/31/2009	-2	-3	1.02E-03	U	1.02E-03	5.00E-03	1.00E+01	1.31E+04		
B4 14.5-15	100-42-5	SW8260B	9/1/2009	-14.5	-15	9.92E-04	U	9.92E-04	5.00E-03	1.00E+01	1.31E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Styrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 2-2.5	100-42-5	SW8260B	9/1/2009	-2	-2.5	1.06E-03	U	1.06E-03	5.00E-03	1.00E+01	1.31E+04		
B5-1	100-42-5	SW8260B	9/2/2009	-1	-1.5	1.04E-03	U	1.04E-03	5.00E-03	1.00E+01	1.31E+04		
B5-2	100-42-5	SW8260B	9/2/2009	-14.5	-15	9.92E-04	U	9.92E-04	5.00E-03	1.00E+01	1.31E+04		
B6-1	100-42-5	SW8260B	9/2/2009	-0.5	-1	9.62E-04	U	9.62E-04	5.00E-03	1.00E+01	1.31E+04		
B6-2	100-42-5	SW8260B	9/2/2009	-14.5	-15	9.92E-04	U	9.92E-04	5.00E-03	1.00E+01	1.31E+04		
B7 0-1'	100-42-5	SW8260B	11/11/2009	0	-1	1.14E-03	U	1.14E-03	5.00E-03	1.00E+01	1.31E+04		
B7 14-15'	100-42-5	SW8260B	11/11/2009	-14	-15	1.25E-03	U	1.25E-03	5.00E-03	1.00E+01	1.31E+04		
B8-1	100-42-5	SW8260B	9/2/2009	-1	-1.5	9.81E-04	U	9.81E-04	5.00E-03	1.00E+01	1.31E+04		
B8-2	100-42-5	SW8260B	9/2/2009	-14	-15	9.54E-04	U	9.54E-04	5.00E-03	1.00E+01	1.31E+04		
B8-3	100-42-5	SW8260B	9/2/2009	-8	-8.5	1.03E-03	U	1.03E-03	5.00E-03	1.00E+01	1.31E+04		
B9 0-1'	100-42-5	SW8260B	11/11/2009	0	-1	1.35E-03	U	1.35E-03	5.00E-03	1.00E+01	1.31E+04		
B9 14-15'	100-42-5	SW8260B	11/11/2009	-14	-15	1.23E-03	U	1.23E-03	5.00E-03	1.00E+01	1.31E+04		

tert-Butylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	98-06-6	SW8260B	8/31/2009	0	-1	1.22E-03	U	1.22E-03	5.00E-03	1.46E+02	2.61E+03		
B1 0-1'	98-06-6	SW8260B	11/11/2009	0	-1	1.81E-03	U	1.81E-03	5.00E-03	1.46E+02	2.61E+03		
B1 14-15'	98-06-6	SW8260B	11/11/2009	-14	-15	1.33E-03	U	1.33E-03	5.00E-03	1.46E+02	2.61E+03		
B10-1	98-06-6	SW8260B	9/2/2009	-2	-3	1.46E-03	U	1.46E-03	5.00E-03	1.46E+02	2.61E+03		
B10-2	98-06-6	SW8260B	9/2/2009	-13	-14	1.24E-03	U	1.24E-03	5.00E-03	1.46E+02	2.61E+03		
B2 1-1.5	98-06-6	SW8260B	9/1/2009	-1	-1.5	1.15E-03	U	1.15E-03	5.00E-03	1.46E+02	2.61E+03		
B2 21-22.5	98-06-6	SW8260B	9/1/2009	-21	-22.5	1.37E-03	U	1.37E-03	5.00E-03	1.46E+02	2.61E+03		
B3 12-13	98-06-6	SW8260B	8/31/2009	-12	-13	1.10E-03	U	1.10E-03	5.00E-03	1.46E+02	2.61E+03		
B3 2-3	98-06-6	SW8260B	8/31/2009	-2	-3	1.28E-03	U	1.28E-03	5.00E-03	1.46E+02	2.61E+03		
B4 14.5-15	98-06-6	SW8260B	9/1/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	1.46E+02	2.61E+03		
B4 2-2.5	98-06-6	SW8260B	9/1/2009	-2	-2.5	1.33E-03	U	1.33E-03	5.00E-03	1.46E+02	2.61E+03		
B5-1	98-06-6	SW8260B	9/2/2009	-1	-1.5	1.31E-03	U	1.31E-03	5.00E-03	1.46E+02	2.61E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

tert-Butylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B5-2	98-06-6	SW8260B	9/2/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	1.46E+02	2.61E+03		
B6-1	98-06-6	SW8260B	9/2/2009	-0.5	-1	1.21E-03	U	1.21E-03	5.00E-03	1.46E+02	2.61E+03		
B6-2	98-06-6	SW8260B	9/2/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	1.46E+02	2.61E+03		
B7 0-1'	98-06-6	SW8260B	11/11/2009	0	-1	1.44E-03	U	1.44E-03	5.00E-03	1.46E+02	2.61E+03		
B7 14-15'	98-06-6	SW8260B	11/11/2009	-14	-15	1.57E-03	U	1.57E-03	5.00E-03	1.46E+02	2.61E+03		
B8-1	98-06-6	SW8260B	9/2/2009	-1	-1.5	1.23E-03	U	1.23E-03	5.00E-03	1.46E+02	2.61E+03		
B8-2	98-06-6	SW8260B	9/2/2009	-14	-15	1.20E-03	U	1.20E-03	5.00E-03	1.46E+02	2.61E+03		
B8-3	98-06-6	SW8260B	9/2/2009	-8	-8.5	1.30E-03	U	1.30E-03	5.00E-03	1.46E+02	2.61E+03		
B9 0-1'	98-06-6	SW8260B	11/11/2009	0	-1	1.69E-03	U	1.69E-03	5.00E-03	1.46E+02	2.61E+03		
B9 14-15'	98-06-6	SW8260B	11/11/2009	-14	-15	1.56E-03	U	1.56E-03	5.00E-03	1.46E+02	2.61E+03		

Tetrachloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	127-18-4	SW8260B	8/31/2009	0	-1	8.59E-04	U	8.59E-04	5.00E-03	5.00E-01	6.02E+00		
B1 0-1'	127-18-4	SW8260B	11/11/2009	0	-1	1.29E-03	U	1.29E-03	5.00E-03	5.00E-01	6.02E+00		
B1 14-15'	127-18-4	SW8260B	11/11/2009	-14	-15	9.37E-04	U	9.37E-04	5.00E-03	5.00E-01	6.02E+00		
B10-1	127-18-4	SW8260B	9/2/2009	-2	-3	1.03E-03	U	1.02E-03	5.00E-03	5.00E-01	6.02E+00		
B10-2	127-18-4	SW8260B	9/2/2009	-13	-14	8.73E-04	U	8.72E-04	5.00E-03	5.00E-01	6.02E+00		
B2 1-1.5	127-18-4	SW8260B	9/1/2009	-1	-1.5	8.12E-04	U	8.12E-04	5.00E-03	5.00E-01	6.02E+00		
B2 21-22.5	127-18-4	SW8260B	9/1/2009	-21	-22.5	9.61E-04	U	9.61E-04	5.00E-03	5.00E-01	6.02E+00		
B3 12-13	127-18-4	SW8260B	8/31/2009	-12	-13	7.73E-04	U	7.73E-04	5.00E-03	5.00E-01	6.02E+00		
B3 2-3	127-18-4	SW8260B	8/31/2009	-2	-3	9.03E-04	U	9.03E-04	5.00E-03	5.00E-01	6.02E+00		
B4 14.5-15	127-18-4	SW8260B	9/1/2009	-14.5	-15	8.78E-04	U	8.78E-04	5.00E-03	5.00E-01	6.02E+00		
B4 2-2.5	127-18-4	SW8260B	9/1/2009	-2	-2.5	9.37E-04	U	9.37E-04	5.00E-03	5.00E-01	6.02E+00		
B5-1	127-18-4	SW8260B	9/2/2009	-1	-1.5	9.21E-04	U	9.21E-04	5.00E-03	5.00E-01	6.02E+00		
B5-2	127-18-4	SW8260B	9/2/2009	-14.5	-15	8.78E-04	U	8.78E-04	5.00E-03	5.00E-01	6.02E+00		
B6-1	127-18-4	SW8260B	9/2/2009	-0.5	-1	8.51E-04	U	8.51E-04	5.00E-03	5.00E-01	6.02E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Tetrachloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B6-2	127-18-4	SW8260B	9/2/2009	-14.5	-15	8.78E-04	U	8.78E-04	5.00E-03	5.00E-01	6.02E+00		
B7 0-1'	127-18-4	SW8260B	11/11/2009	0	-1	1.01E-03	U	1.01E-03	5.00E-03	5.00E-01	6.02E+00		
B7 14-15'	127-18-4	SW8260B	11/11/2009	-14	-15	1.11E-03	U	1.11E-03	5.00E-03	5.00E-01	6.02E+00		
B8-1	127-18-4	SW8260B	9/2/2009	-1	-1.5	8.68E-04	U	8.68E-04	5.00E-03	5.00E-01	6.02E+00		
B8-2	127-18-4	SW8260B	9/2/2009	-14	-15	8.45E-04	U	8.45E-04	5.00E-03	5.00E-01	6.02E+00		
B8-3	127-18-4	SW8260B	9/2/2009	-8	-8.5	9.16E-04	U	9.16E-04	5.00E-03	5.00E-01	6.02E+00		
B9 0-1'	127-18-4	SW8260B	11/11/2009	0	-1	1.20E-03	U	1.20E-03	5.00E-03	5.00E-01	6.02E+00		
B9 14-15'	127-18-4	SW8260B	11/11/2009	-14	-15	1.09E-03	U	1.09E-03	5.00E-03	5.00E-01	6.02E+00		

Tetryl

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 1-2 FT	479-45-8	SW-846 83	8/31/2009	-1	-2	8.41E-01	U	8.41E-01	1.00E-01	3.65E+01	1.55E+03		
B1 13-14	479-45-8	SW-846 83	8/31/2009	-13	-14	8.41E-01	U	8.41E-01	1.00E-01	3.65E+01	1.55E+03		
B10 1 - 2	479-45-8	SW-846 83	9/2/2009	-1	-2	9.99E-01	U	9.99E-01	1.00E-01	3.65E+01	1.55E+03		
B10 11.5 - 1	479-45-8	SW-846 83	9/2/2009	-11.5	-12	1.03E+00	U	1.03E+00	1.00E-01	3.65E+01	1.55E+03		
B2 0.5-1.0	479-45-8	SW-846 83	9/1/2009	-0.5	-1	8.41E-01	U	8.41E-01	1.00E-01	3.65E+01	1.55E+03		
B2 21-21.5	479-45-8	SW-846 83	9/1/2009	-21	-21.5	8.41E-01	U	8.41E-01	1.00E-01	3.65E+01	1.55E+03		
B3 0-1	479-45-8	SW-846 83	8/31/2009	0	-1	8.41E-01	U	8.41E-01	1.00E-01	3.65E+01	1.55E+03		
B3 14-15	479-45-8	SW-846 83	8/31/2009	-14	-15	8.41E-01	U	8.41E-01	1.00E-01	3.65E+01	1.55E+03		
B4 13-14	479-45-8	SW-846 83	9/1/2009	-13	-14	8.41E-01	U	8.41E-01	1.00E-01	3.65E+01	1.55E+03		
B4 3-3.5	479-45-8	SW-846 83	9/1/2009	-3	-3.5	8.41E-01	U	8.41E-01	1.00E-01	3.65E+01	1.55E+03		
B5 14 - 14.	479-45-8	SW-846 83	9/2/2009	-14	-14.5	9.86E-01	U	9.86E-01	1.00E-01	3.65E+01	1.55E+03		
B5 0.5 - 1 M	479-45-8	SW-846 83	9/2/2009	-0.5	-1	1.03E+00	U	1.03E+00	1.00E-01	3.65E+01	1.55E+03		
B6 1 - 1.5	479-45-8	SW-846 83	9/2/2009	-1	-1.5	9.89E-01	U	9.89E-01	1.00E-01	3.65E+01	1.55E+03		
B6 14 - 14.5	479-45-8	SW-846 83	9/2/2009	-14	-14.5	9.68E-01	U	9.68E-01	1.00E-01	3.65E+01	1.55E+03		
B7 0-1 FT	479-45-8	SW-846 83	8/31/2009	0	-1	8.41E-01	U	8.41E-01	1.00E-01	3.65E+01	1.55E+03		
B7 14-15	479-45-8	SW-846 83	8/31/2009	-14	-15	8.41E-01	U	8.41E-01	1.00E-01	3.65E+01	1.55E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Tetryl

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8 13 - 14	479-45-8	SW-846 83	9/2/2009	-13	-14	9.55E-01	U	9.55E-01	1.00E-01	3.65E+01	1.55E+03		
B8 2.75 - 3	479-45-8	SW-846 83	9/2/2009	-2.75	-3	1.06E+00	U	1.06E+00	1.00E-01	3.65E+01	1.55E+03		
B9 14-15	479-45-8	SW-846 83	8/31/2009	-14	-15	8.41E-01	U	8.41E-01	1.00E-01	3.65E+01	1.55E+03		
B9-0-2 FT	479-45-8	SW-846 83	8/31/2009	0	-2	8.41E-01	U	8.41E-01	1.00E-01	3.65E+01	1.55E+03		

Thallium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-28-0	SW6010B	8/31/2009	0	-1	5.47E+00	U	5.47E+00	1.00E+01	1.75E+00	2.04E+01	1.72E+00	4.70E-01
B1 0-1'	7440-28-0	SW6010B	11/11/2009	0	-1	1.72E+00	U	1.72E+00	5.00E+00	1.75E+00	2.04E+01	1.72E+00	4.70E-01
B1 0-1 R	7440-28-0	SW6010B	8/31/2009	0	-1	1.68E+00	U	1.68E+00	5.00E+00	1.75E+00	2.04E+01	1.72E+00	4.70E-01
B1 0-1' R	7440-28-0	SW6010B	11/11/2009	0	-1	1.72E+00	U	1.72E+00	5.00E+00	1.75E+00	2.04E+01	1.72E+00	4.70E-01
B1 14-15'	7440-28-0	SW6010B	11/11/2009	-14	-15	1.59E+00	U	1.59E+00	5.00E+00	1.75E+00	2.04E+01		
B1 14-15' R	7440-28-0	SW6010B	11/11/2009	-14	-15	1.59E+00	U	1.59E+00	5.00E+00	1.75E+00	2.04E+01		
B10-1	7440-28-0	SW6010B	9/2/2009	-2	-3	6.52E+00	U	6.52E+00	1.00E+01	1.75E+00	2.04E+01		
B10-1 R	7440-28-0	SW6010B	9/2/2009	-2	-3	1.88E+00	U	1.88E+00	5.00E+00	1.75E+00	2.04E+01		
B10-2	7440-28-0	SW6010B	9/2/2009	-13	-14	5.55E+00	U	5.55E+00	1.00E+01	1.75E+00	2.04E+01		
B10-2 R	7440-28-0	SW6010B	9/2/2009	-13	-14	1.69E+00	U	1.69E+00	5.00E+00	1.75E+00	2.04E+01		
B2 1-1.5	7440-28-0	SW6010B	9/1/2009	-1	-1.5	5.16E+00	U	5.16E+00	1.00E+01	1.75E+00	2.04E+01		
B2 1-1.5 R	7440-28-0	SW6010B	9/1/2009	-1	-1.5	1.60E+00	U	1.60E+00	5.00E+00	1.75E+00	2.04E+01		
B2 21-22.5	7440-28-0	SW6010B	9/1/2009	-21	-22.5	6.11E+00	U	6.11E+00	1.00E+01	1.75E+00	2.04E+01		
B2 21-22.5	7440-28-0	SW6010B	9/1/2009	-21	-22.5	1.81E+00	U	1.81E+00	5.00E+00	1.75E+00	2.04E+01		
B3 12-13	7440-28-0	SW6010B	8/31/2009	-12	-13	4.91E+00	U	4.91E+00	1.00E+01	1.75E+00	2.04E+01		
B3 12-13 R	7440-28-0	SW6010B	8/31/2009	-12	-13	1.53E+00	U	1.53E+00	5.00E+00	1.75E+00	2.04E+01		
B3 2-3	7440-28-0	SW6010B	8/31/2009	-2	-3	5.75E+00	U	5.75E+00	1.00E+01	1.75E+00	2.04E+01		
B3 2-3 R	7440-28-0	SW6010B	8/31/2009	-2	-3	1.73E+00	U	1.73E+00	5.00E+00	1.75E+00	2.04E+01		
B4 14-14.5	7440-28-0	SW6010B	9/1/2009	-14	-14.5	5.52E+00	U	5.52E+00	1.00E+01	1.75E+00	2.04E+01		
B4 14-14.5	7440-28-0	SW6010B	9/1/2009	-14	-14.5	1.69E+00	U	1.69E+00	5.00E+00	1.75E+00	2.04E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Thallium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 2-2.5	7440-28-0	SW6010B	9/1/2009	-2	-2.5	5.96E+00	U	5.96E+00	1.00E+01	1.75E+00	2.04E+01		
B4 2-2.5 R	7440-28-0	SW6010B	9/1/2009	-2	-2.5	1.78E+00	U	1.78E+00	5.00E+00	1.75E+00	2.04E+01		
B5-1	7440-28-0	SW6010B	9/2/2009	-1	-1.5	5.86E+00	U	5.86E+00	1.00E+01	1.75E+00	2.04E+01		
B5-1 R	7440-28-0	SW6010B	9/2/2009	-1	-1.5	1.76E+00	U	1.76E+00	5.00E+00	1.75E+00	2.04E+01		
B5-2	7440-28-0	SW6010B	9/2/2009	-14.5	-15	5.58E+00	U	5.58E+00	1.00E+01	1.75E+00	2.04E+01		
B5-2 R	7440-28-0	SW6010B	9/2/2009	-14.5	-15	1.71E+00	U	1.71E+00	5.00E+00	1.75E+00	2.04E+01		
B6-1	7440-28-0	SW6010B	9/2/2009	-0.5	-1	5.41E+00	U	5.41E+00	1.00E+01	1.75E+00	2.04E+01	1.72E+00	4.70E-01
B6-1 R	7440-28-0	SW6010B	9/2/2009	-0.5	-1	1.66E+00	U	1.66E+00	5.00E+00	1.75E+00	2.04E+01	1.72E+00	4.70E-01
B6-2	7440-28-0	SW6010B	9/2/2009	-14.5	-15	5.58E+00	U	5.58E+00	1.00E+01	1.75E+00	2.04E+01		
B6-2 R	7440-28-0	SW6010B	9/2/2009	-14.5	-15	1.71E+00	U	1.71E+00	5.00E+00	1.75E+00	2.04E+01		
B7 0-1'	7440-28-0	SW6010B	11/11/2009	0	-1	1.62E+00	U	1.62E+00	5.00E+00	1.75E+00	2.04E+01	1.72E+00	4.70E-01
B7 0-1' R	7440-28-0	SW6010B	11/11/2009	0	-1	1.62E+00	U	1.62E+00	5.00E+00	1.75E+00	2.04E+01	1.72E+00	4.70E-01
B7 14-15'	7440-28-0	SW6010B	11/11/2009	-14	-15	1.66E+00	U	1.66E+00	5.00E+00	1.75E+00	2.04E+01		
B7 14-15' R	7440-28-0	SW6010B	11/11/2009	-14	-15	1.66E+00	U	1.66E+00	5.00E+00	1.75E+00	2.04E+01		
B8-1	7440-28-0	SW6010B	9/2/2009	-1	-1.5	5.52E+00	U	5.52E+00	1.00E+01	1.75E+00	2.04E+01		
B8-1 R	7440-28-0	SW6010B	9/2/2009	-1	-1.5	1.69E+00	U	1.69E+00	5.00E+00	1.75E+00	2.04E+01		
B8-2	7440-28-0	SW6010B	9/2/2009	-14	-15	5.37E+00	U	5.37E+00	1.00E+01	1.75E+00	2.04E+01		
B8-2 R	7440-28-0	SW6010B	9/2/2009	-14	-15	1.66E+00	U	1.66E+00	5.00E+00	1.75E+00	2.04E+01		
B9 0-1'	7440-28-0	SW6010B	11/11/2009	0	-1	1.69E+00	U	1.69E+00	5.00E+00	1.75E+00	2.04E+01	1.72E+00	4.70E-01
B9 0-1' R	7440-28-0	SW6010B	11/11/2009	0	-1	1.69E+00	U	1.69E+00	5.00E+00	1.75E+00	2.04E+01	1.72E+00	4.70E-01
B9 14-15'	7440-28-0	SW6010B	11/11/2009	-14	-15	1.65E+00	U	1.65E+00	5.00E+00	1.75E+00	2.04E+01		
B9 14-15' R	7440-28-0	SW6010B	11/11/2009	-14	-15	1.65E+00	U	1.65E+00	5.00E+00	1.75E+00	2.04E+01		

Toluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	108-88-3	SW8260B	8/31/2009	0	-1	7.15E-04	U	7.15E-04	5.00E-03	1.00E+02	1.08E+04		
B1 0-1'	108-88-3	SW8260B	11/11/2009	0	-1	1.07E-03	U	1.07E-03	5.00E-03	1.00E+02	1.08E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Toluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 14-15'	108-88-3	SW8260B	11/11/2009	-14	-15	7.78E-04	U	7.78E-04	5.00E-03	1.00E+02	1.08E+04		
B10-1	108-88-3	SW8260B	9/2/2009	-2	-3	8.53E-04	U	8.53E-04	5.00E-03	1.00E+02	1.08E+04		
B10-2	108-88-3	SW8260B	9/2/2009	-13	-14	7.26E-04	U	7.26E-04	5.00E-03	1.00E+02	1.08E+04		
B2 1-1.5	108-88-3	SW8260B	9/1/2009	-1	-1.5	6.76E-04	U	6.76E-04	5.00E-03	1.00E+02	1.08E+04		
B2 21-22.5	108-88-3	SW8260B	9/1/2009	-21	-22.5	8.00E-04	U	8.00E-04	5.00E-03	1.00E+02	1.08E+04		
B3 12-13	108-88-3	SW8260B	8/31/2009	-12	-13	6.43E-04	U	6.43E-04	5.00E-03	1.00E+02	1.08E+04		
B3 2-3	108-88-3	SW8260B	8/31/2009	-2	-3	7.52E-04	U	7.52E-04	5.00E-03	1.00E+02	1.08E+04		
B4 14.5-15	108-88-3	SW8260B	9/1/2009	-14.5	-15	7.30E-04	U	7.30E-04	5.00E-03	1.00E+02	1.08E+04		
B4 2-2.5	108-88-3	SW8260B	9/1/2009	-2	-2.5	7.80E-04	U	7.79E-04	5.00E-03	1.00E+02	1.08E+04		
B5-1	108-88-3	SW8260B	9/2/2009	-1	-1.5	7.67E-04	U	7.67E-04	5.00E-03	1.00E+02	1.08E+04		
B5-2	108-88-3	SW8260B	9/2/2009	-14.5	-15	7.30E-04	U	7.30E-04	5.00E-03	1.00E+02	1.08E+04		
B6-1	108-88-3	SW8260B	9/2/2009	-0.5	-1	7.09E-04	U	7.09E-04	5.00E-03	1.00E+02	1.08E+04		
B6-2	108-88-3	SW8260B	9/2/2009	-14.5	-15	7.30E-04	U	7.30E-04	5.00E-03	1.00E+02	1.08E+04		
B7 0-1'	108-88-3	SW8260B	11/11/2009	0	-1	8.42E-04	U	8.41E-04	5.00E-03	1.00E+02	1.08E+04		
B7 14-15'	108-88-3	SW8260B	11/11/2009	-14	-15	9.21E-04	U	9.21E-04	5.00E-03	1.00E+02	1.08E+04		
B8-1	108-88-3	SW8260B	9/2/2009	-1	-1.5	7.23E-04	U	7.23E-04	5.00E-03	1.00E+02	1.08E+04		
B8-2	108-88-3	SW8260B	9/2/2009	-14	-15	7.03E-04	U	7.03E-04	5.00E-03	1.00E+02	1.08E+04		
B8-3	108-88-3	SW8260B	9/2/2009	-8	-8.5	7.62E-04	U	7.62E-04	5.00E-03	1.00E+02	1.08E+04		
B9 0-1'	108-88-3	SW8260B	11/11/2009	0	-1	9.91E-04	U	9.91E-04	5.00E-03	1.00E+02	1.08E+04		
B9 14-15'	108-88-3	SW8260B	11/11/2009	-14	-15	9.08E-04	U	9.08E-04	5.00E-03	1.00E+02	1.08E+04		

trans-1,2-Dichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	156-60-5	SW8260B	8/31/2009	0	-1	1.04E-03	U	1.04E-03	5.00E-03	1.00E+01	1.38E+03		
B1 0-1'	156-60-5	SW8260B	11/11/2009	0	-1	1.55E-03	U	1.55E-03	5.00E-03	1.00E+01	1.38E+03		
B1 14-15'	156-60-5	SW8260B	11/11/2009	-14	-15	1.14E-03	U	1.14E-03	5.00E-03	1.00E+01	1.38E+03		
B10-1	156-60-5	SW8260B	9/2/2009	-2	-3	1.24E-03	U	1.24E-03	5.00E-03	1.00E+01	1.38E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

trans-1,2-Dichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B10-2	156-60-5	SW8260B	9/2/2009	-13	-14	1.05E-03	U	1.05E-03	5.00E-03	1.00E+01	1.38E+03		
B2 1-1.5	156-60-5	SW8260B	9/1/2009	-1	-1.5	9.81E-04	U	9.81E-04	5.00E-03	1.00E+01	1.38E+03		
B2 21-22.5	156-60-5	SW8260B	9/1/2009	-21	-22.5	1.16E-03	U	1.16E-03	5.00E-03	1.00E+01	1.38E+03		
B3 12-13	156-60-5	SW8260B	8/31/2009	-12	-13	9.34E-04	U	9.34E-04	5.00E-03	1.00E+01	1.38E+03		
B3 2-3	156-60-5	SW8260B	8/31/2009	-2	-3	1.09E-03	U	1.09E-03	5.00E-03	1.00E+01	1.38E+03		
B4 14.5-15	156-60-5	SW8260B	9/1/2009	-14.5	-15	1.06E-03	U	1.06E-03	5.00E-03	1.00E+01	1.38E+03		
B4 2-2.5	156-60-5	SW8260B	9/1/2009	-2	-2.5	1.13E-03	U	1.13E-03	5.00E-03	1.00E+01	1.38E+03		
B5-1	156-60-5	SW8260B	9/2/2009	-1	-1.5	1.11E-03	U	1.11E-03	5.00E-03	1.00E+01	1.38E+03		
B5-2	156-60-5	SW8260B	9/2/2009	-14.5	-15	1.06E-03	U	1.06E-03	5.00E-03	1.00E+01	1.38E+03		
B6-1	156-60-5	SW8260B	9/2/2009	-0.5	-1	1.03E-03	U	1.03E-03	5.00E-03	1.00E+01	1.38E+03		
B6-2	156-60-5	SW8260B	9/2/2009	-14.5	-15	1.06E-03	U	1.06E-03	5.00E-03	1.00E+01	1.38E+03		
B7 0-1'	156-60-5	SW8260B	11/11/2009	0	-1	1.22E-03	U	1.22E-03	5.00E-03	1.00E+01	1.38E+03		
B7 14-15'	156-60-5	SW8260B	11/11/2009	-14	-15	1.34E-03	U	1.34E-03	5.00E-03	1.00E+01	1.38E+03		
B8-1	156-60-5	SW8260B	9/2/2009	-1	-1.5	1.05E-03	U	1.05E-03	5.00E-03	1.00E+01	1.38E+03		
B8-2	156-60-5	SW8260B	9/2/2009	-14	-15	1.02E-03	U	1.02E-03	5.00E-03	1.00E+01	1.38E+03		
B8-3	156-60-5	SW8260B	9/2/2009	-8	-8.5	1.11E-03	U	1.11E-03	5.00E-03	1.00E+01	1.38E+03		
B9 0-1'	156-60-5	SW8260B	11/11/2009	0	-1	1.44E-03	U	1.44E-03	5.00E-03	1.00E+01	1.38E+03		
B9 14-15'	156-60-5	SW8260B	11/11/2009	-14	-15	1.32E-03	U	1.32E-03	5.00E-03	1.00E+01	1.38E+03		

trans-1,3-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	142-28-9	SW8260B	8/31/2009	0	-1	1.23E-03	U	1.23E-03	1.00E-02	8.52E-01	2.98E+01		
B1 0-1'	10061-02-9	SW8260B	11/11/2009	0	-1	1.84E-03	U	1.84E-03	1.00E-02				
B1 14-15'	10061-02-9	SW8260B	11/11/2009	-14	-15	1.34E-03	U	1.34E-03	1.00E-02				
B10-1	142-28-9	SW8260B	9/2/2009	-2	-3	1.47E-03	U	1.47E-03	1.00E-02	8.52E-01	2.98E+01		
B10-2	142-28-9	SW8260B	9/2/2009	-13	-14	1.25E-03	U	1.25E-03	1.00E-02	8.52E-01	2.98E+01		
B2 1-1.5	142-28-9	SW8260B	9/1/2009	-1	-1.5	1.16E-03	U	1.16E-03	1.00E-02	8.52E-01	2.98E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

trans-1,3-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B2 21-22.5	142-28-9	SW8260B	9/1/2009	-21	-22.5	1.38E-03	U	1.38E-03	1.00E-02	8.52E-01	2.98E+01		
B3 12-13	142-28-9	SW8260B	8/31/2009	-12	-13	1.11E-03	U	1.11E-03	1.00E-02	8.52E-01	2.98E+01		
B3 2-3	142-28-9	SW8260B	8/31/2009	-2	-3	1.30E-03	U	1.30E-03	1.00E-02	8.52E-01	2.98E+01		
B4 14.5-15	142-28-9	SW8260B	9/1/2009	-14.5	-15	1.26E-03	U	1.26E-03	1.00E-02	8.52E-01	2.98E+01		
B4 2-2.5	142-28-9	SW8260B	9/1/2009	-2	-2.5	1.34E-03	U	1.34E-03	1.00E-02	8.52E-01	2.98E+01		
B5-1	142-28-9	SW8260B	9/2/2009	-1	-1.5	1.32E-03	U	1.32E-03	1.00E-02	8.52E-01	2.98E+01		
B5-2	142-28-9	SW8260B	9/2/2009	-14.5	-15	1.26E-03	U	1.26E-03	1.00E-02	8.52E-01	2.98E+01		
B6-1	142-28-9	SW8260B	9/2/2009	-0.5	-1	1.22E-03	U	1.22E-03	1.00E-02	8.52E-01	2.98E+01		
B6-2	142-28-9	SW8260B	9/2/2009	-14.5	-15	1.26E-03	U	1.26E-03	1.00E-02	8.52E-01	2.98E+01		
B7 0-1'	10061-02-9	SW8260B	11/11/2009	0	-1	1.45E-03	U	1.45E-03	1.00E-02				
B7 14-15'	10061-02-9	SW8260B	11/11/2009	-14	-15	1.58E-03	U	1.58E-03	1.00E-02				
B8-1	142-28-9	SW8260B	9/2/2009	-1	-1.5	1.25E-03	U	1.25E-03	1.00E-02	8.52E-01	2.98E+01		
B8-2	142-28-9	SW8260B	9/2/2009	-14	-15	1.21E-03	U	1.21E-03	1.00E-02	8.52E-01	2.98E+01		
B8-3	142-28-9	SW8260B	9/2/2009	-8	-8.5	1.31E-03	U	1.31E-03	1.00E-02	8.52E-01	2.98E+01		
B9 0-1'	10061-02-9	SW8260B	11/11/2009	0	-1	1.70E-03	U	1.70E-03	1.00E-02				
B9 14-15'	10061-02-9	SW8260B	11/11/2009	-14	-15	1.57E-03	U	1.57E-03	1.00E-02				

Trichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	79-01-6	SW8260B	8/31/2009	0	-1	8.50E-04	U	8.50E-04	5.00E-03	5.00E-01	3.73E+00		
B1 0-1'	79-01-6	SW8260B	11/11/2009	0	-1	1.27E-03	U	1.27E-03	5.00E-03	5.00E-01	3.73E+00		
B1 14-15'	79-01-6	SW8260B	11/11/2009	-14	-15	9.26E-04	U	9.26E-04	5.00E-03	5.00E-01	3.73E+00		
B10-1	79-01-6	SW8260B	9/2/2009	-2	-3	1.01E-03	U	1.01E-03	5.00E-03	5.00E-01	3.73E+00		
B10-2	79-01-6	SW8260B	9/2/2009	-13	-14	8.63E-04	U	8.63E-04	5.00E-03	5.00E-01	3.73E+00		
B2 1-1.5	79-01-6	SW8260B	9/1/2009	-1	-1.5	8.03E-04	U	8.03E-04	5.00E-03	5.00E-01	3.73E+00		
B2 21-22.5	79-01-6	SW8260B	9/1/2009	-21	-22.5	9.51E-04	U	9.51E-04	5.00E-03	5.00E-01	3.73E+00		
B3 12-13	79-01-6	SW8260B	8/31/2009	-12	-13	7.64E-04	U	7.64E-04	5.00E-03	5.00E-01	3.73E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Trichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B3 2-3	79-01-6	SW8260B	8/31/2009	-2	-3	8.94E-04	U	8.94E-04	5.00E-03	5.00E-01	3.73E+00		
B4 14.5-15	79-01-6	SW8260B	9/1/2009	-14.5	-15	8.68E-04	U	8.68E-04	5.00E-03	5.00E-01	3.73E+00		
B4 2-2.5	79-01-6	SW8260B	9/1/2009	-2	-2.5	9.27E-04	U	9.26E-04	5.00E-03	5.00E-01	3.73E+00		
B5-1	79-01-6	SW8260B	9/2/2009	-1	-1.5	9.11E-04	U	9.11E-04	5.00E-03	5.00E-01	3.73E+00		
B5-2	79-01-6	SW8260B	9/2/2009	-14.5	-15	8.68E-04	U	8.68E-04	5.00E-03	5.00E-01	3.73E+00		
B6-1	79-01-6	SW8260B	9/2/2009	-0.5	-1	8.42E-04	U	8.42E-04	5.00E-03	5.00E-01	3.73E+00		
B6-2	79-01-6	SW8260B	9/2/2009	-14.5	-15	8.68E-04	U	8.68E-04	5.00E-03	5.00E-01	3.73E+00		
B7 0-1'	79-01-6	SW8260B	11/11/2009	0	-1	1.00E-03	U	1.00E-03	5.00E-03	5.00E-01	3.73E+00		
B7 14-15'	79-01-6	SW8260B	11/11/2009	-14	-15	1.10E-03	U	1.09E-03	5.00E-03	5.00E-01	3.73E+00		
B8-1	79-01-6	SW8260B	9/2/2009	-1	-1.5	8.59E-04	U	8.59E-04	5.00E-03	5.00E-01	3.73E+00		
B8-2	79-01-6	SW8260B	9/2/2009	-14	-15	8.35E-04	U	8.35E-04	5.00E-03	5.00E-01	3.73E+00		
B8-3	79-01-6	SW8260B	9/2/2009	-8	-8.5	9.06E-04	U	9.06E-04	5.00E-03	5.00E-01	3.73E+00		
B9 0-1'	79-01-6	SW8260B	11/11/2009	0	-1	1.17E-03	U	1.17E-03	5.00E-03	5.00E-01	3.73E+00		
B9 14-15'	79-01-6	SW8260B	11/11/2009	-14	-15	1.08E-03	U	1.08E-03	5.00E-03	5.00E-01	3.73E+00		

Trichlorofluoromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	75-69-4	SW8260B	8/31/2009	0	-1	1.97E-03	U	1.97E-03	5.00E-03	1.10E+03	2.63E+03		
B1 0-1'	75-69-4	SW8260B	11/11/2009	0	-1	2.42E-03	U	2.42E-03	5.00E-03	1.10E+03	2.63E+03		
B1 14-15'	75-69-4	SW8260B	11/11/2009	-14	-15	1.75E-03	U	1.75E-03	5.00E-03	1.10E+03	2.63E+03		
B10-1	75-69-4	SW8260B	9/2/2009	-2	-3	2.34E-03	U	2.34E-03	5.00E-03	1.10E+03	2.63E+03		
B10-2	75-69-4	SW8260B	9/2/2009	-13	-14	2.00E-03	U	2.00E-03	5.00E-03	1.10E+03	2.63E+03		
B2 1-1.5	75-69-4	SW8260B	9/1/2009	-1	-1.5	1.86E-03	U	1.86E-03	5.00E-03	1.10E+03	2.63E+03		
B2 21-22.5	75-69-4	SW8260B	9/1/2009	-21	-22.5	2.20E-03	U	2.20E-03	5.00E-03	1.10E+03	2.63E+03		
B3 12-13	75-69-4	SW8260B	8/31/2009	-12	-13	1.77E-03	U	1.77E-03	5.00E-03	1.10E+03	2.63E+03		
B3 2-3	75-69-4	SW8260B	8/31/2009	-2	-3	2.07E-03	U	2.07E-03	5.00E-03	1.10E+03	2.63E+03		
B4 14.5-15	75-69-4	SW8260B	9/1/2009	-14.5	-15	2.01E-03	U	2.01E-03	5.00E-03	1.10E+03	2.63E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Trichlorofluoromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B4 2-2.5	75-69-4	SW8260B	9/1/2009	-2	-2.5	2.14E-03	U	2.14E-03	5.00E-03	1.10E+03	2.63E+03		
B5-1	75-69-4	SW8260B	9/2/2009	-1	-1.5	2.11E-03	U	2.11E-03	5.00E-03	1.10E+03	2.63E+03		
B5-2	75-69-4	SW8260B	9/2/2009	-14.5	-15	2.01E-03	U	2.01E-03	5.00E-03	1.10E+03	2.63E+03		
B6-1	75-69-4	SW8260B	9/2/2009	-0.5	-1	1.95E-03	U	1.95E-03	5.00E-03	1.10E+03	2.63E+03		
B6-2	75-69-4	SW8260B	9/2/2009	-14.5	-15	2.01E-03	U	2.01E-03	5.00E-03	1.10E+03	2.63E+03		
B7 0-1'	75-69-4	SW8260B	11/11/2009	0	-1	1.90E-03	U	1.90E-03	5.00E-03	1.10E+03	2.63E+03		
B7 14-15'	75-69-4	SW8260B	11/11/2009	-14	-15	2.08E-03	U	2.08E-03	5.00E-03	1.10E+03	2.63E+03		
B8-1	75-69-4	SW8260B	9/2/2009	-1	-1.5	1.99E-03	U	1.99E-03	5.00E-03	1.10E+03	2.63E+03		
B8-2	75-69-4	SW8260B	9/2/2009	-14	-15	1.93E-03	U	1.93E-03	5.00E-03	1.10E+03	2.63E+03		
B8-3	75-69-4	SW8260B	9/2/2009	-8	-8.5	2.09E-03	U	2.09E-03	5.00E-03	1.10E+03	2.63E+03		
B9 0-1'	75-69-4	SW8260B	11/11/2009	0	-1	2.24E-03	U	2.24E-03	5.00E-03	1.10E+03	2.63E+03		
B9 14-15'	75-69-4	SW8260B	11/11/2009	-14	-15	2.05E-03	U	2.05E-03	5.00E-03	1.10E+03	2.63E+03		

Vanadium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-62-2	SW6010B	8/31/2009	0	-1	1.66E+01		8.72E-01	2.00E+00	5.20E+03	4.84E+02	1.86E+01	4.05E+01
B1 0-1'	7440-62-2	SW6010B	11/11/2009	0	-1	4.06E+01		9.01E-01	2.00E+00	5.20E+03	4.84E+02	1.86E+01	4.05E+01
B1 14-15'	7440-62-2	SW6010B	11/11/2009	-14	-15	1.31E+01		8.11E-01	2.00E+00	5.20E+03	4.84E+02		
B10-1	7440-62-2	SW6010B	9/2/2009	-2	-3	3.09E+01		1.04E+00	2.00E+00	5.20E+03	4.84E+02	2.98E+01	5.00E+01
B10-2	7440-62-2	SW6010B	9/2/2009	-13	-14	8.77E+00		8.85E-01	2.00E+00	5.20E+03	4.84E+02		
B2 1-1.5	7440-62-2	SW6010B	9/1/2009	-1	-1.5	3.12E+01		8.24E-01	2.00E+00	5.20E+03	4.84E+02	2.98E+01	5.00E+01
B2 21-22.5	7440-62-2	SW6010B	9/1/2009	-21	-22.5	2.87E+01		9.75E-01	2.00E+00	5.20E+03	4.84E+02		
B3 12-13	7440-62-2	SW6010B	8/31/2009	-12	-13	7.84E-01	U	7.84E-01	2.00E+00	5.20E+03	4.84E+02		
B3 2-3	7440-62-2	SW6010B	8/31/2009	-2	-3	4.32E+01		9.17E-01	2.00E+00	5.20E+03	4.84E+02	2.98E+01	5.00E+01
B4 14-14.5	7440-62-2	SW6010B	9/1/2009	-14	-14.5	1.83E+01		8.80E-01	2.00E+00	5.20E+03	4.84E+02		
B4 2-2.5	7440-62-2	SW6010B	9/1/2009	-2	-2.5	9.51E-01	U	9.51E-01	2.00E+00	5.20E+03	4.84E+02	2.98E+01	5.00E+01
B5-1	7440-62-2	SW6010B	9/2/2009	-1	-1.5	3.47E+01		9.35E-01	2.00E+00	5.20E+03	4.84E+02	2.98E+01	5.00E+01

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Vanadium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B5-2	7440-62-2	SW6010B	9/2/2009	-14.5	-15	2.42E+01		8.91E-01	2.00E+00	5.20E+03	4.84E+02		
B6-1	7440-62-2	SW6010B	9/2/2009	-0.5	-1	2.49E+01		8.64E-01	2.00E+00	5.20E+03	4.84E+02	1.86E+01	4.05E+01
B6-2	7440-62-2	SW6010B	9/2/2009	-14.5	-15	3.22E+01		8.91E-01	2.00E+00	5.20E+03	4.84E+02		
B7 0-1'	7440-62-2	SW6010B	11/11/2009	0	-1	1.93E+01		8.33E-01	2.00E+00	5.20E+03	4.84E+02	1.86E+01	4.05E+01
B7 14-15'	7440-62-2	SW6010B	11/11/2009	-14	-15	1.83E+01		8.58E-01	2.00E+00	5.20E+03	4.84E+02		
B8-1	7440-62-2	SW6010B	9/2/2009	-1	-1.5	3.95E+01		8.81E-01	2.00E+00	5.20E+03	4.84E+02	2.98E+01	5.00E+01
B8-2	7440-62-2	SW6010B	9/2/2009	-14	-15	2.08E+01		8.57E-01	2.00E+00	5.20E+03	4.84E+02		
B9 0-1'	7440-62-2	SW6010B	11/11/2009	0	-1	3.01E+01		8.79E-01	2.00E+00	5.20E+03	4.84E+02	1.86E+01	4.05E+01
B9 14-15'	7440-62-2	SW6010B	11/11/2009	-14	-15	1.57E+01		8.54E-01	2.00E+00	5.20E+03	4.84E+02		

Vinyl chloride

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	75-01-4	SW8260B	8/31/2009	0	-1	1.07E-03	U	1.07E-03	2.00E-03	2.00E-01	3.64E-02		
B1 0-1'	75-01-4	SW8260B	11/11/2009	0	-1	1.60E-03	U	1.60E-03	2.00E-03	2.00E-01	3.64E-02		
B1 14-15'	75-01-4	SW8260B	11/11/2009	-14	-15	1.17E-03	U	1.17E-03	2.00E-03	2.00E-01	3.64E-02		
B10-1	75-01-4	SW8260B	9/2/2009	-2	-3	1.28E-03	U	1.28E-03	2.00E-03	2.00E-01	3.64E-02		
B10-2	75-01-4	SW8260B	9/2/2009	-13	-14	1.09E-03	U	1.09E-03	2.00E-03	2.00E-01	3.64E-02		
B2 1-1.5	75-01-4	SW8260B	9/1/2009	-1	-1.5	1.01E-03	U	1.01E-03	2.00E-03	2.00E-01	3.64E-02		
B2 21-22.5	75-01-4	SW8260B	9/1/2009	-21	-22.5	1.20E-03	U	1.20E-03	2.00E-03	2.00E-01	3.64E-02		
B3 12-13	75-01-4	SW8260B	8/31/2009	-12	-13	9.62E-04	U	9.62E-04	2.00E-03	2.00E-01	3.64E-02		
B3 2-3	75-01-4	SW8260B	8/31/2009	-2	-3	1.12E-03	U	1.12E-03	2.00E-03	2.00E-01	3.64E-02		
B4 14.5-15	75-01-4	SW8260B	9/1/2009	-14.5	-15	1.09E-03	U	1.09E-03	2.00E-03	2.00E-01	3.64E-02		
B4 2-2.5	75-01-4	SW8260B	9/1/2009	-2	-2.5	1.17E-03	U	1.17E-03	2.00E-03	2.00E-01	3.64E-02		
B5-1	75-01-4	SW8260B	9/2/2009	-1	-1.5	1.15E-03	U	1.15E-03	2.00E-03	2.00E-01	3.64E-02		
B5-2	75-01-4	SW8260B	9/2/2009	-14.5	-15	1.09E-03	U	1.09E-03	2.00E-03	2.00E-01	3.64E-02		
B6-1	75-01-4	SW8260B	9/2/2009	-0.5	-1	1.06E-03	U	1.06E-03	2.00E-03	2.00E-01	3.64E-02		
B6-2	75-01-4	SW8260B	9/2/2009	-14.5	-15	1.09E-03	U	1.09E-03	2.00E-03	2.00E-01	3.64E-02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Vinyl chloride

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B7 0-1'	75-01-4	SW8260B	11/11/2009	0	-1	1.25E-03	U	1.25E-03	2.00E-03	2.00E-01	3.64E-02		
B7 14-15'	75-01-4	SW8260B	11/11/2009	-14	-15	1.37E-03	U	1.37E-03	2.00E-03	2.00E-01	3.64E-02		
B8-1	75-01-4	SW8260B	9/2/2009	-1	-1.5	1.08E-03	U	1.08E-03	2.00E-03	2.00E-01	3.64E-02		
B8-2	75-01-4	SW8260B	9/2/2009	-14	-15	1.05E-03	U	1.05E-03	2.00E-03	2.00E-01	3.64E-02		
B8-3	75-01-4	SW8260B	9/2/2009	-8	-8.5	1.14E-03	U	1.14E-03	2.00E-03	2.00E-01	3.64E-02		
B9 0-1'	75-01-4	SW8260B	11/11/2009	0	-1	1.49E-03	U	1.49E-03	2.00E-03	2.00E-01	3.64E-02		
B9 14-15'	75-01-4	SW8260B	11/11/2009	-14	-15	1.37E-03	U	1.37E-03	2.00E-03	2.00E-01	3.64E-02		

Zinc

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B1 0-1	7440-66-6	SW6010B	8/31/2009	0	-1	2.40E+01		5.00E-01	1.00E+00	1.10E+03	5.94E+04	1.52E+01	6.16E+01
B1 0-1'	7440-66-6	SW6010B	11/11/2009	0	-1	3.31E+01		5.17E-01	1.00E+00	1.10E+03	5.94E+04	1.52E+01	6.16E+01
B1 14-15'	7440-66-6	SW6010B	11/11/2009	-14	-15	1.85E+01		4.65E-01	1.00E+00	1.10E+03	5.94E+04		
B10-1	7440-66-6	SW6010B	9/2/2009	-2	-3	3.33E+01		5.96E-01	1.00E+00	1.10E+03	5.94E+04	1.22E+01	2.48E+01
B10-2	7440-66-6	SW6010B	9/2/2009	-13	-14	1.96E+01		5.08E-01	1.00E+00	1.10E+03	5.94E+04		
B2 1-1.5	7440-66-6	SW6010B	9/1/2009	-1	-1.5	3.97E+01		4.73E-01	1.00E+00	1.10E+03	5.94E+04	1.22E+01	2.48E+01
B2 21-22.5	7440-66-6	SW6010B	9/1/2009	-21	-22.5	6.44E+01		5.59E-01	1.00E+00	1.10E+03	5.94E+04		
B3 12-13	7440-66-6	SW6010B	8/31/2009	-12	-13	1.73E+01		4.50E-01	1.00E+00	1.10E+03	5.94E+04		
B3 2-3	7440-66-6	SW6010B	8/31/2009	-2	-3	3.51E+01		5.26E-01	1.00E+00	1.10E+03	5.94E+04	1.22E+01	2.48E+01
B4 14-14.5	7440-66-6	SW6010B	9/1/2009	-14	-14.5	5.04E+01		5.05E-01	1.00E+00	1.10E+03	5.94E+04		
B4 2-2.5	7440-66-6	SW6010B	9/1/2009	-2	-2.5	4.44E+01		5.45E-01	1.00E+00	1.10E+03	5.94E+04	1.22E+01	2.48E+01
B5-1	7440-66-6	SW6010B	9/2/2009	-1	-1.5	3.38E+01		5.36E-01	1.00E+00	1.10E+03	5.94E+04	1.22E+01	2.48E+01
B5-2	7440-66-6	SW6010B	9/2/2009	-14.5	-15	5.84E+01		5.11E-01	1.00E+00	1.10E+03	5.94E+04		
B6-1	7440-66-6	SW6010B	9/2/2009	-0.5	-1	2.83E+01		4.95E-01	1.00E+00	1.10E+03	5.94E+04	1.52E+01	6.16E+01
B6-2	7440-66-6	SW6010B	9/2/2009	-14.5	-15	6.22E+01		5.11E-01	1.00E+00	1.10E+03	5.94E+04		
B7 0-1'	7440-66-6	SW6010B	11/11/2009	0	-1	1.79E+01		4.77E-01	1.00E+00	1.10E+03	5.94E+04	1.52E+01	6.16E+01
B7 14-15'	7440-66-6	SW6010B	11/11/2009	-14	-15	8.65E+00		4.92E-01	1.00E+00	1.10E+03	5.94E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 4 - Soil Data Summary Table
Based on Residential Land Use

Zinc

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Res	SAI Res	UCL	UTL
B8-1	7440-66-6	SW6010B	9/2/2009	-1	-1.5	1.89E+01		5.05E-01	1.00E+00	1.10E+03	5.94E+04	1.22E+01	2.48E+01
B8-2	7440-66-6	SW6010B	9/2/2009	-14	-15	2.35E+01		4.91E-01	1.00E+00	1.10E+03	5.94E+04		
B9 0-1'	7440-66-6	SW6010B	11/11/2009	0	-1	1.23E+01		5.04E-01	1.00E+00	1.10E+03	5.94E+04	1.52E+01	6.16E+01
B9 14-15'	7440-66-6	SW6010B	11/11/2009	-14	-15	2.43E+01		4.90E-01	1.00E+00	1.10E+03	5.94E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

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APPENDIX 5

SOIL DATA SUMMARY TABLE BASED ON COMMERCIAL/INDUSTRIAL LAND USE

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Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,1,1,2-Tetrachloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	630-20-6	SW8260B	8/31/2009	0	-1	9.98E-04	U	9.98E-04	5.00E-03	1.10E+01	1.05E+02		
B1 0-1'	630-20-6	SW8260B	11/11/2009	0	-1	1.49E-03	U	1.49E-03	5.00E-03	1.10E+01	1.05E+02		
B1 14-15'	630-20-6	SW8260B	11/11/2009	-14	-15	1.08E-03	U	1.08E-03	5.00E-03	1.10E+01	1.05E+02		
B10-1	630-20-6	SW8260B	9/2/2009	-2	-3	1.19E-03	U	1.19E-03	5.00E-03	1.10E+01	1.05E+02		
B10-2	630-20-6	SW8260B	9/2/2009	-13	-14	1.01E-03	U	1.01E-03	5.00E-03	1.10E+01	1.05E+02		
B2 1-1.5	630-20-6	SW8260B	9/1/2009	-1	-1.5	9.43E-04	U	9.43E-04	5.00E-03	1.10E+01	1.05E+02		
B2 21-22.5	630-20-6	SW8260B	9/1/2009	-21	-22.5	1.12E-03	U	1.12E-03	5.00E-03	1.10E+01	1.05E+02		
B3 12-13	630-20-6	SW8260B	8/31/2009	-12	-13	8.97E-04	U	8.97E-04	5.00E-03	1.10E+01	1.05E+02		
B3 2-3	630-20-6	SW8260B	8/31/2009	-2	-3	1.05E-03	U	1.05E-03	5.00E-03	1.10E+01	1.05E+02		
B4 14.5-15	630-20-6	SW8260B	9/1/2009	-14.5	-15	1.02E-03	U	1.02E-03	5.00E-03	1.10E+01	1.05E+02		
B4 2-2.5	630-20-6	SW8260B	9/1/2009	-2	-2.5	1.09E-03	U	1.09E-03	5.00E-03	1.10E+01	1.05E+02		
B5-1	630-20-6	SW8260B	9/2/2009	-1	-1.5	1.07E-03	U	1.07E-03	5.00E-03	1.10E+01	1.05E+02		
B5-2	630-20-6	SW8260B	9/2/2009	-14.5	-15	1.02E-03	U	1.02E-03	5.00E-03	1.10E+01	1.05E+02		
B6-1	630-20-6	SW8260B	9/2/2009	-0.5	-1	9.89E-04	U	9.88E-04	5.00E-03	1.10E+01	1.05E+02		
B6-2	630-20-6	SW8260B	9/2/2009	-14.5	-15	1.02E-03	U	1.02E-03	5.00E-03	1.10E+01	1.05E+02		
B7 0-1'	630-20-6	SW8260B	11/11/2009	0	-1	1.18E-03	U	1.18E-03	5.00E-03	1.10E+01	1.05E+02		
B7 14-15'	630-20-6	SW8260B	11/11/2009	-14	-15	1.28E-03	U	1.28E-03	5.00E-03	1.10E+01	1.05E+02		
B8-1	630-20-6	SW8260B	9/2/2009	-1	-1.5	1.01E-03	U	1.01E-03	5.00E-03	1.10E+01	1.05E+02		
B8-2	630-20-6	SW8260B	9/2/2009	-14	-15	9.81E-04	U	9.81E-04	5.00E-03	1.10E+01	1.05E+02		
B8-3	630-20-6	SW8260B	9/2/2009	-8	-8.5	1.06E-03	U	1.06E-03	5.00E-03	1.10E+01	1.05E+02		
B9 0-1'	630-20-6	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	5.00E-03	1.10E+01	1.05E+02		
B9 14-15'	630-20-6	SW8260B	11/11/2009	-14	-15	1.26E-03	U	1.26E-03	5.00E-03	1.10E+01	1.05E+02		

1,1,1-Trichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	71-55-6	SW8260B	8/31/2009	0	-1	1.40E-03	U	1.40E-03	5.00E-03	2.00E+01	3.37E+03		
B1 0-1'	71-55-6	SW8260B	11/11/2009	0	-1	2.08E-03	U	2.08E-03	5.00E-03	2.00E+01	3.37E+03		
B1 14-15'	71-55-6	SW8260B	11/11/2009	-14	-15	1.53E-03	U	1.53E-03	5.00E-03	2.00E+01	3.37E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,1,1-Trichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-1	71-55-6	SW8260B	9/2/2009	-2	-3	1.66E-03	U	1.66E-03	5.00E-03	2.00E+01	3.37E+03		
B10-2	71-55-6	SW8260B	9/2/2009	-13	-14	1.42E-03	U	1.42E-03	5.00E-03	2.00E+01	3.37E+03		
B2 1-1.5	71-55-6	SW8260B	9/1/2009	-1	-1.5	1.32E-03	U	1.32E-03	5.00E-03	2.00E+01	3.37E+03		
B2 21-22.5	71-55-6	SW8260B	9/1/2009	-21	-22.5	1.56E-03	U	1.56E-03	5.00E-03	2.00E+01	3.37E+03		
B3 12-13	71-55-6	SW8260B	8/31/2009	-12	-13	1.25E-03	U	1.25E-03	5.00E-03	2.00E+01	3.37E+03		
B3 2-3	71-55-6	SW8260B	8/31/2009	-2	-3	1.47E-03	U	1.47E-03	5.00E-03	2.00E+01	3.37E+03		
B4 14.5-15	71-55-6	SW8260B	9/1/2009	-14.5	-15	1.43E-03	U	1.43E-03	5.00E-03	2.00E+01	3.37E+03		
B4 2-2.5	71-55-6	SW8260B	9/1/2009	-2	-2.5	1.52E-03	U	1.52E-03	5.00E-03	2.00E+01	3.37E+03		
B5-1	71-55-6	SW8260B	9/2/2009	-1	-1.5	1.50E-03	U	1.50E-03	5.00E-03	2.00E+01	3.37E+03		
B5-2	71-55-6	SW8260B	9/2/2009	-14.5	-15	1.43E-03	U	1.43E-03	5.00E-03	2.00E+01	3.37E+03		
B6-1	71-55-6	SW8260B	9/2/2009	-0.5	-1	1.38E-03	U	1.38E-03	5.00E-03	2.00E+01	3.37E+03		
B6-2	71-55-6	SW8260B	9/2/2009	-14.5	-15	1.43E-03	U	1.43E-03	5.00E-03	2.00E+01	3.37E+03		
B7 0-1'	71-55-6	SW8260B	11/11/2009	0	-1	1.64E-03	U	1.64E-03	5.00E-03	2.00E+01	3.37E+03		
B7 14-15'	71-55-6	SW8260B	11/11/2009	-14	-15	1.80E-03	U	1.80E-03	5.00E-03	2.00E+01	3.37E+03		
B8-1	71-55-6	SW8260B	9/2/2009	-1	-1.5	1.41E-03	U	1.41E-03	5.00E-03	2.00E+01	3.37E+03		
B8-2	71-55-6	SW8260B	9/2/2009	-14	-15	1.37E-03	U	1.37E-03	5.00E-03	2.00E+01	3.37E+03		
B8-3	71-55-6	SW8260B	9/2/2009	-8	-8.5	1.49E-03	U	1.49E-03	5.00E-03	2.00E+01	3.37E+03		
B9 0-1'	71-55-6	SW8260B	11/11/2009	0	-1	1.93E-03	U	1.93E-03	5.00E-03	2.00E+01	3.37E+03		
B9 14-15'	71-55-6	SW8260B	11/11/2009	-14	-15	1.78E-03	U	1.78E-03	5.00E-03	2.00E+01	3.37E+03		

1,1,2,2-Tetrachloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	79-34-5	SW8260B	8/31/2009	0	-1	6.70E-04	U	6.70E-04	5.00E-03	1.43E+00	9.80E+00		
B1 0-1'	79-34-5	SW8260B	11/11/2009	0	-1	1.00E-03	U	1.00E-03	5.00E-03	1.43E+00	9.80E+00		
B1 14-15'	79-34-5	SW8260B	11/11/2009	-14	-15	7.29E-04	U	7.29E-04	5.00E-03	1.43E+00	9.80E+00		
B10-1	79-34-5	SW8260B	9/2/2009	-2	-3	7.99E-04	U	7.99E-04	5.00E-03	1.43E+00	9.80E+00		
B10-2	79-34-5	SW8260B	9/2/2009	-13	-14	6.80E-04	U	6.80E-04	5.00E-03	1.43E+00	9.80E+00		
B2 1-1.5	79-34-5	SW8260B	9/1/2009	-1	-1.5	6.33E-04	U	6.33E-04	5.00E-03	1.43E+00	9.80E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,1,2,2-Tetrachloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 21-22.5	79-34-5	SW8260B	9/1/2009	-21	-22.5	7.49E-04	U	7.49E-04	5.00E-03	1.43E+00	9.80E+00		
B3 12-13	79-34-5	SW8260B	8/31/2009	-12	-13	6.02E-04	U	6.02E-04	5.00E-03	1.43E+00	9.80E+00		
B3 2-3	79-34-5	SW8260B	8/31/2009	-2	-3	7.04E-04	U	7.04E-04	5.00E-03	1.43E+00	9.80E+00		
B4 14.5-15	79-34-5	SW8260B	9/1/2009	-14.5	-15	6.84E-04	U	6.84E-04	5.00E-03	1.43E+00	9.80E+00		
B4 2-2.5	79-34-5	SW8260B	9/1/2009	-2	-2.5	7.30E-04	U	7.30E-04	5.00E-03	1.43E+00	9.80E+00		
B5-1	79-34-5	SW8260B	9/2/2009	-1	-1.5	7.18E-04	U	7.18E-04	5.00E-03	1.43E+00	9.80E+00		
B5-2	79-34-5	SW8260B	9/2/2009	-14.5	-15	6.84E-04	U	6.84E-04	5.00E-03	1.43E+00	9.80E+00		
B6-1	79-34-5	SW8260B	9/2/2009	-0.5	-1	6.64E-04	U	6.64E-04	5.00E-03	1.43E+00	9.80E+00		
B6-2	79-34-5	SW8260B	9/2/2009	-14.5	-15	6.84E-04	U	6.84E-04	5.00E-03	1.43E+00	9.80E+00		
B7 0-1'	79-34-5	SW8260B	11/11/2009	0	-1	7.87E-04	U	7.87E-04	5.00E-03	1.43E+00	9.80E+00		
B7 14-15'	79-34-5	SW8260B	11/11/2009	-14	-15	8.63E-04	U	8.63E-04	5.00E-03	1.43E+00	9.80E+00		
B8-1	79-34-5	SW8260B	9/2/2009	-1	-1.5	6.77E-04	U	6.77E-04	5.00E-03	1.43E+00	9.80E+00		
B8-2	79-34-5	SW8260B	9/2/2009	-14	-15	6.58E-04	U	6.58E-04	5.00E-03	1.43E+00	9.80E+00		
B8-3	79-34-5	SW8260B	9/2/2009	-8	-8.5	7.14E-04	U	7.14E-04	5.00E-03	1.43E+00	9.80E+00		
B9 0-1'	79-34-5	SW8260B	11/11/2009	0	-1	9.27E-04	U	9.27E-04	5.00E-03	1.43E+00	9.80E+00		
B9 14-15'	79-34-5	SW8260B	11/11/2009	-14	-15	8.51E-04	U	8.51E-04	5.00E-03	1.43E+00	9.80E+00		

1,1,2-Trichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	79-00-5	SW8260B	8/31/2009	0	-1	1.10E-03	U	1.10E-03	5.00E-03	5.00E-01	1.75E+01		
B1 0-1'	79-00-5	SW8260B	11/11/2009	0	-1	1.63E-03	U	1.63E-03	5.00E-03	5.00E-01	1.75E+01		
B1 14-15'	79-00-5	SW8260B	11/11/2009	-14	-15	1.19E-03	U	1.19E-03	5.00E-03	5.00E-01	1.75E+01		
B10-1	79-00-5	SW8260B	9/2/2009	-2	-3	1.31E-03	U	1.31E-03	5.00E-03	5.00E-01	1.75E+01		
B10-2	79-00-5	SW8260B	9/2/2009	-13	-14	1.11E-03	U	1.11E-03	5.00E-03	5.00E-01	1.75E+01		
B2 1-1.5	79-00-5	SW8260B	9/1/2009	-1	-1.5	1.04E-03	U	1.04E-03	5.00E-03	5.00E-01	1.75E+01		
B2 21-22.5	79-00-5	SW8260B	9/1/2009	-21	-22.5	1.23E-03	U	1.22E-03	5.00E-03	5.00E-01	1.75E+01		
B3 12-13	79-00-5	SW8260B	8/31/2009	-12	-13	9.85E-04	U	9.85E-04	5.00E-03	5.00E-01	1.75E+01		
B3 2-3	79-00-5	SW8260B	8/31/2009	-2	-3	1.15E-03	U	1.15E-03	5.00E-03	5.00E-01	1.75E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,1,2-Trichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 14.5-15	79-00-5	SW8260B	9/1/2009	-14.5	-15	1.12E-03	U	1.12E-03	5.00E-03	5.00E-01	1.75E+01		
B4 2-2.5	79-00-5	SW8260B	9/1/2009	-2	-2.5	1.19E-03	U	1.19E-03	5.00E-03	5.00E-01	1.75E+01		
B5-1	79-00-5	SW8260B	9/2/2009	-1	-1.5	1.17E-03	U	1.17E-03	5.00E-03	5.00E-01	1.75E+01		
B5-2	79-00-5	SW8260B	9/2/2009	-14.5	-15	1.12E-03	U	1.12E-03	5.00E-03	5.00E-01	1.75E+01		
B6-1	79-00-5	SW8260B	9/2/2009	-0.5	-1	1.09E-03	U	1.09E-03	5.00E-03	5.00E-01	1.75E+01		
B6-2	79-00-5	SW8260B	9/2/2009	-14.5	-15	1.12E-03	U	1.12E-03	5.00E-03	5.00E-01	1.75E+01		
B7 0-1'	79-00-5	SW8260B	11/11/2009	0	-1	1.30E-03	U	1.30E-03	5.00E-03	5.00E-01	1.75E+01		
B7 14-15'	79-00-5	SW8260B	11/11/2009	-14	-15	1.42E-03	U	1.42E-03	5.00E-03	5.00E-01	1.75E+01		
B8-1	79-00-5	SW8260B	9/2/2009	-1	-1.5	1.11E-03	U	1.11E-03	5.00E-03	5.00E-01	1.75E+01		
B8-2	79-00-5	SW8260B	9/2/2009	-14	-15	1.08E-03	U	1.08E-03	5.00E-03	5.00E-01	1.75E+01		
B8-3	79-00-5	SW8260B	9/2/2009	-8	-8.5	1.17E-03	U	1.17E-03	5.00E-03	5.00E-01	1.75E+01		
B9 0-1'	79-00-5	SW8260B	11/11/2009	0	-1	1.51E-03	U	1.51E-03	5.00E-03	5.00E-01	1.75E+01		
B9 14-15'	79-00-5	SW8260B	11/11/2009	-14	-15	1.39E-03	U	1.39E-03	5.00E-03	5.00E-01	1.75E+01		

1,1-Dichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	75-34-3	SW8260B	8/31/2009	0	-1	1.02E-03	U	1.02E-03	5.00E-03	1.02E+03	1.28E+03		
B1 0-1'	74-34-3	SW8260B	11/11/2009	0	-1	1.51E-03	U	1.51E-03	5.00E-03				
B1 14-15'	74-34-3	SW8260B	11/11/2009	-14	-15	1.10E-03	U	1.10E-03	5.00E-03				
B10-1	75-34-3	SW8260B	9/2/2009	-2	-3	1.21E-03	U	1.21E-03	5.00E-03	1.02E+03	1.28E+03		
B10-2	75-34-3	SW8260B	9/2/2009	-13	-14	1.03E-03	U	1.03E-03	5.00E-03	1.02E+03	1.28E+03		
B2 1-1.5	75-34-3	SW8260B	9/1/2009	-1	-1.5	9.62E-04	U	9.62E-04	5.00E-03	1.02E+03	1.28E+03		
B2 21-22.5	75-34-3	SW8260B	9/1/2009	-21	-22.5	1.14E-03	U	1.14E-03	5.00E-03	1.02E+03	1.28E+03		
B3 12-13	75-34-3	SW8260B	8/31/2009	-12	-13	9.15E-04	U	9.15E-04	5.00E-03	1.02E+03	1.28E+03		
B3 2-3	75-34-3	SW8260B	8/31/2009	-2	-3	1.07E-03	U	1.07E-03	5.00E-03	1.02E+03	1.28E+03		
B4 14.5-15	75-34-3	SW8260B	9/1/2009	-14.5	-15	1.04E-03	U	1.04E-03	5.00E-03	1.02E+03	1.28E+03		
B4 2-2.5	75-34-3	SW8260B	9/1/2009	-2	-2.5	1.11E-03	U	1.11E-03	5.00E-03	1.02E+03	1.28E+03		
B5-1	75-34-3	SW8260B	9/2/2009	-1	-1.5	1.09E-03	U	1.09E-03	5.00E-03	1.02E+03	1.28E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,1-Dichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B5-2	75-34-3	SW8260B	9/2/2009	-14.5	-15	1.04E-03	U	1.04E-03	5.00E-03	1.02E+03	1.28E+03		
B6-1	75-34-3	SW8260B	9/2/2009	-0.5	-1	1.01E-03	U	1.01E-03	5.00E-03	1.02E+03	1.28E+03		
B6-2	75-34-3	SW8260B	9/2/2009	-14.5	-15	1.04E-03	U	1.04E-03	5.00E-03	1.02E+03	1.28E+03		
B7 0-1'	74-34-3	SW8260B	11/11/2009	0	-1	1.20E-03	U	1.20E-03	5.00E-03				
B7 14-15'	74-34-3	SW8260B	11/11/2009	-14	-15	1.30E-03	U	1.30E-03	5.00E-03				
B8-1	75-34-3	SW8260B	9/2/2009	-1	-1.5	1.03E-03	U	1.03E-03	5.00E-03	1.02E+03	1.28E+03		
B8-2	75-34-3	SW8260B	9/2/2009	-14	-15	1.00E-03	U	1.00E-03	5.00E-03	1.02E+03	1.28E+03		
B8-3	75-34-3	SW8260B	9/2/2009	-8	-8.5	1.08E-03	U	1.08E-03	5.00E-03	1.02E+03	1.28E+03		
B9 0-1'	74-34-3	SW8260B	11/11/2009	0	-1	1.42E-03	U	1.42E-03	5.00E-03				
B9 14-15'	74-34-3	SW8260B	11/11/2009	-14	-15	1.30E-03	U	1.30E-03	5.00E-03				

1,1-Dichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	75-35-4	SW8260B	8/31/2009	0	-1	1.17E-03	U	1.17E-03	5.00E-03	7.00E-01	3.81E+02		
B1 0-1'	75-35-4	SW8260B	11/11/2009	0	-1	1.74E-03	U	1.74E-03	5.00E-03	7.00E-01	3.81E+02		
B1 14-15'	75-35-4	SW8260B	11/11/2009	-14	-15	1.28E-03	U	1.28E-03	5.00E-03	7.00E-01	3.81E+02		
B10-1	75-35-4	SW8260B	9/2/2009	-2	-3	1.40E-03	U	1.40E-03	5.00E-03	7.00E-01	3.81E+02		
B10-2	75-35-4	SW8260B	9/2/2009	-13	-14	1.19E-03	U	1.19E-03	5.00E-03	7.00E-01	3.81E+02		
B2 1-1.5	75-35-4	SW8260B	9/1/2009	-1	-1.5	1.11E-03	U	1.11E-03	5.00E-03	7.00E-01	3.81E+02		
B2 21-22.5	75-35-4	SW8260B	9/1/2009	-21	-22.5	1.31E-03	U	1.31E-03	5.00E-03	7.00E-01	3.81E+02		
B3 12-13	75-35-4	SW8260B	8/31/2009	-12	-13	1.06E-03	U	1.06E-03	5.00E-03	7.00E-01	3.81E+02		
B3 2-3	75-35-4	SW8260B	8/31/2009	-2	-3	1.23E-03	U	1.23E-03	5.00E-03	7.00E-01	3.81E+02		
B4 14.5-15	75-35-4	SW8260B	9/1/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	7.00E-01	3.81E+02		
B4 2-2.5	75-35-4	SW8260B	9/1/2009	-2	-2.5	1.28E-03	U	1.28E-03	5.00E-03	7.00E-01	3.81E+02		
B5-1	75-35-4	SW8260B	9/2/2009	-1	-1.5	1.26E-03	U	1.26E-03	5.00E-03	7.00E-01	3.81E+02		
B5-2	75-35-4	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	7.00E-01	3.81E+02		
B6-1	75-35-4	SW8260B	9/2/2009	-0.5	-1	1.16E-03	U	1.16E-03	5.00E-03	7.00E-01	3.81E+02		
B6-2	75-35-4	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	7.00E-01	3.81E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,1-Dichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 0-1'	75-35-4	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	5.00E-03	7.00E-01	3.81E+02		
B7 14-15'	75-35-4	SW8260B	11/11/2009	-14	-15	1.52E-03	U	1.52E-03	5.00E-03	7.00E-01	3.81E+02		
B8-1	75-35-4	SW8260B	9/2/2009	-1	-1.5	1.19E-03	U	1.19E-03	5.00E-03	7.00E-01	3.81E+02		
B8-2	75-35-4	SW8260B	9/2/2009	-14	-15	1.15E-03	U	1.15E-03	5.00E-03	7.00E-01	3.81E+02		
B8-3	75-35-4	SW8260B	9/2/2009	-8	-8.5	1.25E-03	U	1.25E-03	5.00E-03	7.00E-01	3.81E+02		
B9 0-1'	75-35-4	SW8260B	11/11/2009	0	-1	1.62E-03	U	1.62E-03	5.00E-03	7.00E-01	3.81E+02		
B9 14-15'	75-35-4	SW8260B	11/11/2009	-14	-15	1.49E-03	U	1.49E-03	5.00E-03	7.00E-01	3.81E+02		

1,1-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	563-58-6	SW8260B	8/31/2009	0	-1	7.66E-04	U	7.66E-04	5.00E-03	2.86E-01	1.91E+00		
B1 0-1'	563-58-6	SW8260B	11/11/2009	0	-1	1.14E-03	U	1.14E-03	5.00E-03	2.86E-01	1.91E+00		
B1 0-1'	563-58-6	SW8260B	11/11/2009	0	-1	6.50E-04	U	6.50E-04	1.00E-03	2.86E-01	1.91E+00		
B1 14-15'	563-58-6	SW8260B	11/11/2009	-14	-15	5.27E-04	U	5.27E-04	1.00E-03	2.86E-01	1.91E+00		
B1 14-15'	563-58-6	SW8260B	11/11/2009	-14	-15	8.34E-04	U	8.34E-04	5.00E-03	2.86E-01	1.91E+00		
B10-1	563-58-6	SW8260B	9/2/2009	-2	-3	9.14E-04	U	9.14E-04	5.00E-03	2.86E-01	1.91E+00		
B10-2	563-58-6	SW8260B	9/2/2009	-13	-14	7.78E-04	U	7.78E-04	5.00E-03	2.86E-01	1.91E+00		
B2 1-1.5	563-58-6	SW8260B	9/1/2009	-1	-1.5	7.24E-04	U	7.24E-04	5.00E-03	2.86E-01	1.91E+00		
B2 21-22.5	563-58-6	SW8260B	9/1/2009	-21	-22.5	8.57E-04	U	8.57E-04	5.00E-03	2.86E-01	1.91E+00		
B3 12-13	563-58-6	SW8260B	8/31/2009	-12	-13	6.89E-04	U	6.89E-04	5.00E-03	2.86E-01	1.91E+00		
B3 2-3	563-58-6	SW8260B	8/31/2009	-2	-3	8.06E-04	U	8.06E-04	5.00E-03	2.86E-01	1.91E+00		
B4 14.5-15	563-58-6	SW8260B	9/1/2009	-14.5	-15	7.83E-04	U	7.83E-04	5.00E-03	2.86E-01	1.91E+00		
B4 2-2.5	563-58-6	SW8260B	9/1/2009	-2	-2.5	8.35E-04	U	8.35E-04	5.00E-03	2.86E-01	1.91E+00		
B5-1	563-58-6	SW8260B	9/2/2009	-1	-1.5	8.22E-04	U	8.22E-04	5.00E-03	2.86E-01	1.91E+00		
B5-2	563-58-6	SW8260B	9/2/2009	-14.5	-15	7.83E-04	U	7.83E-04	5.00E-03	2.86E-01	1.91E+00		
B6-1	563-58-6	SW8260B	9/2/2009	-0.5	-1	7.59E-04	U	7.59E-04	5.00E-03	2.86E-01	1.91E+00		
B6-2	563-58-6	SW8260B	9/2/2009	-14.5	-15	7.83E-04	U	7.83E-04	5.00E-03	2.86E-01	1.91E+00		
B7 0-1'	563-58-6	SW8260B	11/11/2009	0	-1	5.55E-04	U	5.55E-04	1.00E-03	2.86E-01	1.91E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,1-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 0-1'	563-58-6	SW8260B	11/11/2009	0	-1	9.02E-04	U	9.03E-04	5.00E-03	2.86E-01	1.91E+00		
B7 14-15'	563-58-6	SW8260B	11/11/2009	-14	-15	9.87E-04	U	9.87E-04	5.00E-03	2.86E-01	1.91E+00		
B7 14-15'	563-58-6	SW8260B	11/11/2009	-14	-15	5.89E-04	U	5.89E-04	1.00E-03	2.86E-01	1.91E+00		
B8-1	563-58-6	SW8260B	9/2/2009	-1	-1.5	7.74E-04	U	7.74E-04	5.00E-03	2.86E-01	1.91E+00		
B8-2	563-58-6	SW8260B	9/2/2009	-14	-15	7.53E-04	U	7.53E-04	5.00E-03	2.86E-01	1.91E+00		
B8-3	563-58-6	SW8260B	9/2/2009	-8	-8.5	8.17E-04	U	8.17E-04	5.00E-03	2.86E-01	1.91E+00		
B9 0-1'	563-58-6	SW8260B	11/11/2009	0	-1	1.06E-03	U	1.06E-03	5.00E-03	2.86E-01	1.91E+00		
B9 0-1'	563-58-6	SW8260B	11/11/2009	0	-1	6.19E-04	U	6.19E-04	1.00E-03	2.86E-01	1.91E+00		
B9 14-15'	563-58-6	SW8260B	11/11/2009	-14	-15	9.74E-04	U	9.74E-04	5.00E-03	2.86E-01	1.91E+00		
B9 14-15'	563-58-6	SW8260B	11/11/2009	-14	-15	5.84E-04	U	5.84E-04	1.00E-03	2.86E-01	1.91E+00		

1,2,3-Trichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	87-61-6	SW8260B	8/31/2009	0	-1	9.91E-04	U	9.91E-04	5.00E-03	3.07E+01	2.05E+03		
B1 0-1'	87-61-6	SW8260B	11/11/2009	0	-1	1.48E-03	U	1.48E-03	5.00E-03	3.07E+01	2.05E+03		
B1 14-15'	87-61-6	SW8260B	11/11/2009	-14	-15	1.08E-03	U	1.08E-03	5.00E-03	3.07E+01	2.05E+03		
B10-1	87-61-6	SW8260B	9/2/2009	-2	-3	1.18E-03	U	1.18E-03	5.00E-03	3.07E+01	2.05E+03		
B10-2	87-61-6	SW8260B	9/2/2009	-13	-14	1.01E-03	U	1.01E-03	5.00E-03	3.07E+01	2.05E+03		
B2 1-1.5	87-61-6	SW8260B	9/1/2009	-1	-1.5	9.36E-04	U	9.36E-04	5.00E-03	3.07E+01	2.05E+03		
B2 21-22.5	87-61-6	SW8260B	9/1/2009	-21	-22.5	1.11E-03	U	1.11E-03	5.00E-03	3.07E+01	2.05E+03		
B3 12-13	87-61-6	SW8260B	8/31/2009	-12	-13	8.91E-04	U	8.91E-04	5.00E-03	3.07E+01	2.05E+03		
B3 2-3	87-61-6	SW8260B	8/31/2009	-2	-3	1.04E-03	U	1.04E-03	5.00E-03	3.07E+01	2.05E+03		
B4 14.5-15	87-61-6	SW8260B	9/1/2009	-14.5	-15	1.01E-03	U	1.01E-03	5.00E-03	3.07E+01	2.05E+03		
B4 2-2.5	87-61-6	SW8260B	9/1/2009	-2	-2.5	1.08E-03	U	1.08E-03	5.00E-03	3.07E+01	2.05E+03		
B5-1	87-61-6	SW8260B	9/2/2009	-1	-1.5	1.06E-03	U	1.06E-03	5.00E-03	3.07E+01	2.05E+03		
B5-2	87-61-6	SW8260B	9/2/2009	-14.5	-15	1.01E-03	U	1.01E-03	5.00E-03	3.07E+01	2.05E+03		
B6-1	87-61-6	SW8260B	9/2/2009	-0.5	-1	9.82E-04	U	9.82E-04	5.00E-03	3.07E+01	2.05E+03		
B6-2	87-61-6	SW8260B	9/2/2009	-14.5	-15	1.01E-03	U	1.01E-03	5.00E-03	3.07E+01	2.05E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,2,3-Trichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 0-1'	87-61-6	SW8260B	11/11/2009	0	-1	1.17E-03	U	1.17E-03	5.00E-03	3.07E+01	2.05E+03		
B7 14-15'	87-61-6	SW8260B	11/11/2009	-14	-15	1.28E-03	U	1.28E-03	5.00E-03	3.07E+01	2.05E+03		
B8-1	87-61-6	SW8260B	9/2/2009	-1	-1.5	1.00E-03	U	1.00E-03	5.00E-03	3.07E+01	2.05E+03		
B8-2	87-61-6	SW8260B	9/2/2009	-14	-15	9.74E-04	U	9.74E-04	5.00E-03	3.07E+01	2.05E+03		
B8-3	87-61-6	SW8260B	9/2/2009	-8	-8.5	1.06E-03	U	1.06E-03	5.00E-03	3.07E+01	2.05E+03		
B9 0-1'	87-61-6	SW8260B	11/11/2009	0	-1	1.37E-03	U	1.37E-03	5.00E-03	3.07E+01	2.05E+03		
B9 14-15'	87-61-6	SW8260B	11/11/2009	-14	-15	1.25E-03	U	1.25E-03	5.00E-03	3.07E+01	2.05E+03		

1,2,3-Trichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	96-18-4	SW8260B	8/31/2009	0	-1	1.26E-03	U	1.26E-03	5.00E-03	4.09E-03	8.18E-01		
B1 0-1'	96-18-4	SW8260B	11/11/2009	0	-1	1.87E-03	U	1.87E-03	5.00E-03	4.09E-03	8.18E-01		
B1 0-1'	96-18-4	SW8260B	11/11/2009	0	-1	7.94E-05	U	7.94E-05	2.50E-04	4.09E-03	8.18E-01		
B1 14-15'	96-18-4	SW8260B	11/11/2009	-14	-15	1.37E-03	U	1.37E-03	5.00E-03	4.09E-03	8.18E-01		
B1 14-15'	96-18-4	SW8260B	11/11/2009	-14	-15	6.44E-05	U	6.44E-05	2.50E-04	4.09E-03	8.18E-01		
B10-1	96-18-4	SW8260B	9/2/2009	-2	-3	1.50E-03	U	1.50E-03	5.00E-03	4.09E-03	8.18E-01		
B10-2	96-18-4	SW8260B	9/2/2009	-13	-14	1.28E-03	U	1.28E-03	5.00E-03	4.09E-03	8.18E-01		
B2 1-1.5	96-18-4	SW8260B	9/1/2009	-1	-1.5	1.19E-03	U	1.19E-03	5.00E-03	4.09E-03	8.18E-01		
B2 21-22.5	96-18-4	SW8260B	9/1/2009	-21	-22.5	1.40E-03	U	1.40E-03	5.00E-03	4.09E-03	8.18E-01		
B3 12-13	96-18-4	SW8260B	8/31/2009	-12	-13	1.13E-03	U	1.13E-03	5.00E-03	4.09E-03	8.18E-01		
B3 2-3	96-18-4	SW8260B	8/31/2009	-2	-3	1.32E-03	U	1.32E-03	5.00E-03	4.09E-03	8.18E-01		
B4 14.5-15	96-18-4	SW8260B	9/1/2009	-14.5	-15	1.28E-03	U	1.28E-03	5.00E-03	4.09E-03	8.18E-01		
B4 2-2.5	96-18-4	SW8260B	9/1/2009	-2	-2.5	1.37E-03	U	1.37E-03	5.00E-03	4.09E-03	8.18E-01		
B5-1	96-18-4	SW8260B	9/2/2009	-1	-1.5	1.35E-03	U	1.35E-03	5.00E-03	4.09E-03	8.18E-01		
B5-2	96-18-4	SW8260B	9/2/2009	-14.5	-15	1.28E-03	U	1.28E-03	5.00E-03	4.09E-03	8.18E-01		
B6-1	96-18-4	SW8260B	9/2/2009	-0.5	-1	1.24E-03	U	1.24E-03	5.00E-03	4.09E-03	8.18E-01		
B6-2	96-18-4	SW8260B	9/2/2009	-14.5	-15	1.28E-03	U	1.28E-03	5.00E-03	4.09E-03	8.18E-01		
B7 0-1'	96-18-4	SW8260B	11/11/2009	0	-1	6.78E-05	U	6.78E-05	2.50E-04	4.09E-03	8.18E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,2,3-Trichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 0-1'	96-18-4	SW8260B	11/11/2009	0	-1	1.48E-03	U	1.48E-03	5.00E-03	4.09E-03	8.18E-01		
B7 14-15'	96-18-4	SW8260B	11/11/2009	-14	-15	1.62E-03	U	1.62E-03	5.00E-03	4.09E-03	8.18E-01		
B7 14-15'	96-18-4	SW8260B	11/11/2009	-14	-15	7.20E-05	U	7.20E-05	2.50E-04	4.09E-03	8.18E-01		
B8-1	96-18-4	SW8260B	9/2/2009	-1	-1.5	1.27E-03	U	1.27E-03	5.00E-03	4.09E-03	8.18E-01		
B8-2	96-18-4	SW8260B	9/2/2009	-14	-15	1.23E-03	U	1.23E-03	5.00E-03	4.09E-03	8.18E-01		
B8-3	96-18-4	SW8260B	9/2/2009	-8	-8.5	1.34E-03	U	1.34E-03	5.00E-03	4.09E-03	8.18E-01		
B9 0-1'	96-18-4	SW8260B	11/11/2009	0	-1	1.75E-03	U	1.75E-03	5.00E-03	4.09E-03	8.18E-01		
B9 0-1'	96-18-4	SW8260B	11/11/2009	0	-1	7.56E-05	U	7.56E-05	2.50E-04	4.09E-03	8.18E-01		
B9 14-15'	96-18-4	SW8260B	11/11/2009	-14	-15	7.13E-05	U	7.13E-05	2.50E-04	4.09E-03	8.18E-01		
B9 14-15'	96-18-4	SW8260B	11/11/2009	-14	-15	1.59E-03	U	1.59E-03	5.00E-03	4.09E-03	8.18E-01		

1,2,4,5-Tetrachlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	95-94-3	SW8270C	8/31/2009	0	-1	1.55E-01	U	1.55E-01	3.30E-01	3.07E+00	3.04E+02		
B1 0-1'	95-94-3	SW8270C	11/11/2009	0	-1	1.60E-01	U	1.60E-01	3.30E-01	3.07E+00	3.04E+02		
B1 14-15'	95-94-3	SW8270C	11/11/2009	-14	-15	1.44E-01	U	1.44E-01	3.30E-01	3.07E+00	3.04E+02		
B10-1	95-94-3	SW8270C	9/2/2009	-2	-3	1.85E-01	U	1.84E-01	3.30E-01	3.07E+00	3.04E+02		
B10-2	95-94-3	SW8270C	9/2/2009	-13	-14	1.57E-01	U	1.57E-01	3.30E-01	3.07E+00	3.04E+02		
B2 1-1.5	95-94-3	SW8270C	9/1/2009	-1	-1.5	1.46E-01	U	1.46E-01	3.30E-01	3.07E+00	3.04E+02		
B2 21-22.5	95-94-3	SW8270C	9/1/2009	-21	-22.5	1.73E-01	U	1.73E-01	3.30E-01	3.07E+00	3.04E+02		
B3 12-13	95-94-3	SW8270C	8/31/2009	-12	-13	1.39E-01	U	1.39E-01	3.30E-01	3.07E+00	3.04E+02		
B3 2-3	95-94-3	SW8270C	8/31/2009	-2	-3	1.63E-01	U	1.63E-01	3.30E-01	3.07E+00	3.04E+02		
B4 14-14.5	95-94-3	SW8270C	9/1/2009	-14	-14.5	1.56E-01	U	1.56E-01	3.30E-01	3.07E+00	3.04E+02		
B4 2-2.5	95-94-3	SW8270C	9/1/2009	-2	-2.5	1.69E-01	U	1.69E-01	3.30E-01	3.07E+00	3.04E+02		
B5-1	95-94-3	SW8270C	9/2/2009	-1	-1.5	1.66E-01	U	1.66E-01	3.30E-01	3.07E+00	3.04E+02		
B5-2	95-94-3	SW8270C	9/2/2009	-14.5	-15	1.58E-01	U	1.58E-01	3.30E-01	3.07E+00	3.04E+02		
B6-1	95-94-3	SW8270C	9/2/2009	-0.5	-1	1.53E-01	U	1.53E-01	3.30E-01	3.07E+00	3.04E+02		
B6-2	95-94-3	SW8270C	9/2/2009	-14.5	-15	1.58E-01	U	1.58E-01	3.30E-01	3.07E+00	3.04E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,2,4,5-Tetrachlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 0-1'	95-94-3	SW8270C	11/11/2009	0	-1	1.48E-01	U	1.48E-01	3.30E-01	3.07E+00	3.04E+02		
B7 14-15'	95-94-3	SW8270C	11/11/2009	-14	-15	1.52E-01	U	1.52E-01	3.30E-01	3.07E+00	3.04E+02		
B8-1	95-94-3	SW8270C	9/2/2009	-1	-1.5	1.56E-01	U	1.56E-01	3.30E-01	3.07E+00	3.04E+02		
B8-2	95-94-3	SW8270C	9/2/2009	-14	-15	1.52E-01	U	1.52E-01	3.30E-01	3.07E+00	3.04E+02		
B9 0-1'	95-94-3	SW8270C	11/11/2009	0	-1	1.56E-01	U	1.56E-01	3.30E-01	3.07E+00	3.04E+02		
B9 14-15'	95-94-3	SW8270C	11/11/2009	-14	-15	1.52E-01	U	1.51E-01	3.30E-01	3.07E+00	3.04E+02		

1,2,4-Trichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	120-82-1	SW8270C	8/31/2009	0	-1	5.06E-02	U	5.06E-02	3.30E-01	7.00E+00	6.13E+03		
B1 0-1	120-82-1	SW8260B	8/31/2009	0	-1	2.91E-03	U	2.91E-03	5.00E-03	7.00E+00	6.13E+03		
B1 0-1'	120-82-1	SW8260B	11/11/2009	0	-1	2.78E-03	U	2.78E-03	5.00E-03	7.00E+00	6.13E+03		
B1 0-1'	120-82-1	SW8270C	11/11/2009	0	-1	5.23E-02	U	5.23E-02	3.30E-01	7.00E+00	6.13E+03		
B1 14-15'	120-82-1	SW8260B	11/11/2009	-14	-15	2.02E-03	U	2.02E-03	5.00E-03	7.00E+00	6.13E+03		
B1 14-15'	120-82-1	SW8270C	11/11/2009	-14	-15	4.71E-02	U	4.71E-02	3.30E-01	7.00E+00	6.13E+03		
B10-1	120-82-1	SW8260B	9/2/2009	-2	-3	3.47E-03	U	3.47E-03	5.00E-03	7.00E+00	6.13E+03		
B10-1	120-82-1	SW8270C	9/2/2009	-2	-3	6.03E-02	U	6.03E-02	3.30E-01	7.00E+00	6.13E+03		
B10-2	120-82-1	SW8260B	9/2/2009	-13	-14	2.95E-03	U	2.95E-03	5.00E-03	7.00E+00	6.13E+03		
B10-2	120-82-1	SW8270C	9/2/2009	-13	-14	5.14E-02	U	5.14E-02	3.30E-01	7.00E+00	6.13E+03		
B2 1-1.5	120-82-1	SW8260B	9/1/2009	-1	-1.5	2.75E-03	U	2.75E-03	5.00E-03	7.00E+00	6.13E+03		
B2 1-1.5	120-82-1	SW8270C	9/1/2009	-1	-1.5	4.78E-02	U	4.78E-02	3.30E-01	7.00E+00	6.13E+03		
B2 21-22.5	120-82-1	SW8260B	9/1/2009	-21	-22.5	3.25E-03	U	3.25E-03	5.00E-03	7.00E+00	6.13E+03		
B2 21-22.5	120-82-1	SW8270C	9/1/2009	-21	-22.5	5.66E-02	U	5.66E-02	3.30E-01	7.00E+00	6.13E+03		
B3 12-13	120-82-1	SW8260B	8/31/2009	-12	-13	2.61E-03	U	2.61E-03	5.00E-03	7.00E+00	6.13E+03		
B3 12-13	120-82-1	SW8270C	8/31/2009	-12	-13	4.55E-02	U	4.55E-02	3.30E-01	7.00E+00	6.13E+03		
B3 2-3	120-82-1	SW8260B	8/31/2009	-2	-3	3.06E-03	U	3.06E-03	5.00E-03	7.00E+00	6.13E+03		
B3 2-3	120-82-1	SW8270C	8/31/2009	-2	-3	5.32E-02	U	5.32E-02	3.30E-01	7.00E+00	6.13E+03		
B4 14.5-15	120-82-1	SW8260B	9/1/2009	-14.5	-15	2.97E-03	U	2.97E-03	5.00E-03	7.00E+00	6.13E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,2,4-Trichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 14-14.5	120-82-1	SW8270C	9/1/2009	-14	-14.5	5.11E-02	U	5.11E-02	3.30E-01	7.00E+00	6.13E+03		
B4 2-2.5	120-82-1	SW8260B	9/1/2009	-2	-2.5	3.17E-03	U	3.17E-03	5.00E-03	7.00E+00	6.13E+03		
B4 2-2.5	120-82-1	SW8270C	9/1/2009	-2	-2.5	5.51E-02	U	5.51E-02	3.30E-01	7.00E+00	6.13E+03		
B5-1	120-82-1	SW8270C	9/2/2009	-1	-1.5	5.42E-02	U	5.42E-02	3.30E-01	7.00E+00	6.13E+03		
B5-1	120-82-1	SW8260B	9/2/2009	-1	-1.5	3.12E-03	U	3.12E-03	5.00E-03	7.00E+00	6.13E+03		
B5-2	120-82-1	SW8260B	9/2/2009	-14.5	-15	2.97E-03	U	2.97E-03	5.00E-03	7.00E+00	6.13E+03		
B5-2	120-82-1	SW8270C	9/2/2009	-14.5	-15	5.17E-02	U	5.17E-02	3.30E-01	7.00E+00	6.13E+03		
B6-1	120-82-1	SW8270C	9/2/2009	-0.5	-1	5.01E-02	U	5.01E-02	3.30E-01	7.00E+00	6.13E+03		
B6-1	120-82-1	SW8260B	9/2/2009	-0.5	-1	2.88E-03	U	2.88E-03	5.00E-03	7.00E+00	6.13E+03		
B6-2	120-82-1	SW8270C	9/2/2009	-14.5	-15	5.17E-02	U	5.17E-02	3.30E-01	7.00E+00	6.13E+03		
B6-2	120-82-1	SW8260B	9/2/2009	-14.5	-15	2.97E-03	U	2.97E-03	5.00E-03	7.00E+00	6.13E+03		
B7 0-1'	120-82-1	SW8260B	11/11/2009	0	-1	2.20E-03	U	2.20E-03	5.00E-03	7.00E+00	6.13E+03		
B7 0-1'	120-82-1	SW8270C	11/11/2009	0	-1	4.83E-02	U	4.83E-02	3.30E-01	7.00E+00	6.13E+03		
B7 14-15'	120-82-1	SW8260B	11/11/2009	-14	-15	2.39E-03	U	2.39E-03	5.00E-03	7.00E+00	6.13E+03		
B7 14-15'	120-82-1	SW8270C	11/11/2009	-14	-15	4.98E-02	U	4.98E-02	3.30E-01	7.00E+00	6.13E+03		
B8-1	120-82-1	SW8260B	9/2/2009	-1	-1.5	2.94E-03	U	2.94E-03	5.00E-03	7.00E+00	6.13E+03		
B8-1	120-82-1	SW8270C	9/2/2009	-1	-1.5	5.11E-02	U	5.11E-02	3.30E-01	7.00E+00	6.13E+03		
B8-2	120-82-1	SW8270C	9/2/2009	-14	-15	4.97E-02	U	4.97E-02	3.30E-01	7.00E+00	6.13E+03		
B8-2	120-82-1	SW8260B	9/2/2009	-14	-15	2.86E-03	U	2.86E-03	5.00E-03	7.00E+00	6.13E+03		
B8-3	120-82-1	SW8260B	9/2/2009	-8	-8.5	3.10E-03	U	3.10E-03	5.00E-03	7.00E+00	6.13E+03		
B9 0-1'	120-82-1	SW8270C	11/11/2009	0	-1	5.10E-02	U	5.10E-02	3.30E-01	7.00E+00	6.13E+03		
B9 0-1'	120-82-1	SW8260B	11/11/2009	0	-1	2.58E-03	U	2.58E-03	5.00E-03	7.00E+00	6.13E+03		
B9 14-15'	120-82-1	SW8270C	11/11/2009	-14	-15	4.95E-02	U	4.95E-02	3.30E-01	7.00E+00	6.13E+03		
B9 14-15'	120-82-1	SW8260B	11/11/2009	-14	-15	2.36E-03	U	2.36E-03	5.00E-03	7.00E+00	6.13E+03		

1,2,4-Trimethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	95-63-6	SW8260B	8/31/2009	0	-1	7.38E-04	U	7.38E-04	5.00E-03	5.11E+02	1.35E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,2,4-Trimethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1'	95-63-6	SW8260B	11/11/2009	0	-1	1.10E-03	U	1.10E-03	5.00E-03	5.11E+02	1.35E+02		
B1 14-15'	95-63-6	SW8260B	11/11/2009	-14	-15	8.04E-04	U	8.04E-04	5.00E-03	5.11E+02	1.35E+02		
B10-1	95-63-6	SW8260B	9/2/2009	-2	-3	8.81E-04	U	8.81E-04	5.00E-03	5.11E+02	1.35E+02		
B10-2	95-63-6	SW8260B	9/2/2009	-13	-14	7.50E-04	U	7.50E-04	5.00E-03	5.11E+02	1.35E+02		
B2 1-1.5	95-63-6	SW8260B	9/1/2009	-1	-1.5	6.98E-04	U	6.98E-04	5.00E-03	5.11E+02	1.35E+02		
B2 21-22.5	95-63-6	SW8260B	9/1/2009	-21	-22.5	8.26E-04	U	8.26E-04	5.00E-03	5.11E+02	1.35E+02		
B3 12-13	95-63-6	SW8260B	8/31/2009	-12	-13	6.64E-04	U	6.64E-04	5.00E-03	5.11E+02	1.35E+02		
B3 2-3	95-63-6	SW8260B	8/31/2009	-2	-3	7.76E-04	U	7.76E-04	5.00E-03	5.11E+02	1.35E+02		
B4 14.5-15	95-63-6	SW8260B	9/1/2009	-14.5	-15	7.54E-04	U	7.54E-04	5.00E-03	5.11E+02	1.35E+02		
B4 2-2.5	95-63-6	SW8260B	9/1/2009	-2	-2.5	8.05E-04	U	8.05E-04	5.00E-03	5.11E+02	1.35E+02		
B5-1	95-63-6	SW8260B	9/2/2009	-1	-1.5	7.92E-04	U	7.92E-04	5.00E-03	5.11E+02	1.35E+02		
B5-2	95-63-6	SW8260B	9/2/2009	-14.5	-15	7.54E-04	U	7.54E-04	5.00E-03	5.11E+02	1.35E+02		
B6-1	95-63-6	SW8260B	9/2/2009	-0.5	-1	7.32E-04	U	7.32E-04	5.00E-03	5.11E+02	1.35E+02		
B6-2	95-63-6	SW8260B	9/2/2009	-14.5	-15	7.54E-04	U	7.54E-04	5.00E-03	5.11E+02	1.35E+02		
B7 0-1'	95-63-6	SW8260B	11/11/2009	0	-1	8.69E-04	U	8.69E-04	5.00E-03	5.11E+02	1.35E+02		
B7 14-15'	95-63-6	SW8260B	11/11/2009	-14	-15	9.52E-04	U	9.52E-04	5.00E-03	5.11E+02	1.35E+02		
B8-1	95-63-6	SW8260B	9/2/2009	-1	-1.5	7.46E-04	U	7.46E-04	5.00E-03	5.11E+02	1.35E+02		
B8-2	95-63-6	SW8260B	9/2/2009	-14	-15	7.26E-04	U	7.26E-04	5.00E-03	5.11E+02	1.35E+02		
B8-3	95-63-6	SW8260B	9/2/2009	-8	-8.5	7.87E-04	U	7.87E-04	5.00E-03	5.11E+02	1.35E+02		
B9 0-1'	95-63-6	SW8260B	11/11/2009	0	-1	1.02E-03	U	1.02E-03	5.00E-03	5.11E+02	1.35E+02		
B9 14-15'	95-63-6	SW8260B	11/11/2009	-14	-15	9.37E-04	U	9.37E-04	5.00E-03	5.11E+02	1.35E+02		

1,2-Dibromo-3-chloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	96-12-8	SW8260B	8/31/2009	0	-1	1.70E-03	U	1.70E-03	5.00E-03	2.00E-02	2.02E+00		
B1 0-1'	96-12-8	SW8260B	11/11/2009	0	-1	9.39E-05	U	9.39E-05	2.50E-04	2.00E-02	2.02E+00		
B1 0-1'	96-12-8	SW8260B	11/11/2009	0	-1	2.52E-03	U	2.52E-03	5.00E-03	2.00E-02	2.02E+00		
B1 14-15'	96-12-8	SW8260B	11/11/2009	-14	-15	7.61E-05	U	7.61E-05	2.50E-04	2.00E-02	2.02E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,2-Dibromo-3-chloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 14-15'	96-12-8	SW8260B	11/11/2009	-14	-15	1.85E-03	U	1.85E-03	5.00E-03	2.00E-02	2.02E+00		
B10-1	96-12-8	SW8260B	9/2/2009	-2	-3	2.02E-03	U	2.02E-03	5.00E-03	2.00E-02	2.02E+00		
B10-2	96-12-8	SW8260B	9/2/2009	-13	-14	1.72E-03	U	1.72E-03	5.00E-03	2.00E-02	2.02E+00		
B2 1-1.5	96-12-8	SW8260B	9/1/2009	-1	-1.5	1.60E-03	U	1.60E-03	5.00E-03	2.00E-02	2.02E+00		
B2 21-22.5	96-12-8	SW8260B	9/1/2009	-21	-22.5	1.90E-03	U	1.90E-03	5.00E-03	2.00E-02	2.02E+00		
B3 12-13	96-12-8	SW8260B	8/31/2009	-12	-13	1.53E-03	U	1.53E-03	5.00E-03	2.00E-02	2.02E+00		
B3 2-3	96-12-8	SW8260B	8/31/2009	-2	-3	1.78E-03	U	1.78E-03	5.00E-03	2.00E-02	2.02E+00		
B4 14.5-15	96-12-8	SW8260B	9/1/2009	-14.5	-15	1.73E-03	U	1.73E-03	5.00E-03	2.00E-02	2.02E+00		
B4 2-2.5	96-12-8	SW8260B	9/1/2009	-2	-2.5	1.85E-03	U	1.85E-03	5.00E-03	2.00E-02	2.02E+00		
B5-1	96-12-8	SW8260B	9/2/2009	-1	-1.5	1.82E-03	U	1.82E-03	5.00E-03	2.00E-02	2.02E+00		
B5-2	96-12-8	SW8260B	9/2/2009	-14.5	-15	1.73E-03	U	1.73E-03	5.00E-03	2.00E-02	2.02E+00		
B6-1	96-12-8	SW8260B	9/2/2009	-0.5	-1	1.68E-03	U	1.68E-03	5.00E-03	2.00E-02	2.02E+00		
B6-2	96-12-8	SW8260B	9/2/2009	-14.5	-15	1.73E-03	U	1.73E-03	5.00E-03	2.00E-02	2.02E+00		
B7 0-1'	96-12-8	SW8260B	11/11/2009	0	-1	2.00E-03	U	2.00E-03	5.00E-03	2.00E-02	2.02E+00		
B7 0-1'	96-12-8	SW8260B	11/11/2009	0	-1	8.02E-05	U	8.02E-05	2.50E-04	2.00E-02	2.02E+00		
B7 14-15'	96-12-8	SW8260B	11/11/2009	-14	-15	8.51E-05	U	8.51E-05	2.50E-04	2.00E-02	2.02E+00		
B7 14-15'	96-12-8	SW8260B	11/11/2009	-14	-15	2.19E-03	U	2.19E-03	5.00E-03	2.00E-02	2.02E+00		
B8-1	96-12-8	SW8260B	9/2/2009	-1	-1.5	1.72E-03	U	1.72E-03	5.00E-03	2.00E-02	2.02E+00		
B8-2	96-12-8	SW8260B	9/2/2009	-14	-15	1.67E-03	U	1.67E-03	5.00E-03	2.00E-02	2.02E+00		
B8-3	96-12-8	SW8260B	9/2/2009	-8	-8.5	1.81E-03	U	1.81E-03	5.00E-03	2.00E-02	2.02E+00		
B9 0-1'	96-12-8	SW8260B	11/11/2009	0	-1	8.93E-05	U	8.93E-05	2.50E-04	2.00E-02	2.02E+00		
B9 0-1'	96-12-8	SW8260B	11/11/2009	0	-1	2.34E-03	U	2.34E-03	5.00E-03	2.00E-02	2.02E+00		
B9 14-15'	96-12-8	SW8260B	11/11/2009	-14	-15	8.43E-05	U	8.43E-05	2.50E-04	2.00E-02	2.02E+00		
B9 14-15'	96-12-8	SW8260B	11/11/2009	-14	-15	2.15E-03	U	2.15E-03	5.00E-03	2.00E-02	2.02E+00		

1,2-Dibromoethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	106-93-4	SW8260B	8/31/2009	0	-1	8.63E-04	U	8.63E-04	5.00E-03	5.00E-03	1.03E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,2-Dibromoethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1'	106-93-4	SW8260B	11/11/2009	0	-1	6.07E-05	U	6.07E-05	2.50E-04	5.00E-03	1.03E-01		
B1 0-1'	106-93-4	SW8260B	11/11/2009	0	-1	1.29E-03	U	1.29E-03	5.00E-03	5.00E-03	1.03E-01		
B1 14-15'	106-93-4	SW8260B	11/11/2009	-14	-15	9.40E-04	U	9.40E-04	5.00E-03	5.00E-03	1.03E-01		
B1 14-15'	106-93-4	SW8260B	11/11/2009	-14	-15	4.91E-05	U	4.91E-05	2.50E-04	5.00E-03	1.03E-01		
B10-1	106-93-4	SW8260B	9/2/2009	-2	-3	1.03E-03	U	1.03E-03	5.00E-03	5.00E-03	1.03E-01		
B10-2	106-93-4	SW8260B	9/2/2009	-13	-14	8.76E-04	U	8.76E-04	5.00E-03	5.00E-03	1.03E-01		
B2 1-1.5	106-93-4	SW8260B	9/1/2009	-1	-1.5	8.15E-04	U	8.15E-04	5.00E-03	5.00E-03	1.03E-01		
B2 21-22.5	106-93-4	SW8260B	9/1/2009	-21	-22.5	9.65E-04	U	9.65E-04	5.00E-03	5.00E-03	1.03E-01		
B3 12-13	106-93-4	SW8260B	8/31/2009	-12	-13	7.76E-04	U	7.76E-04	5.00E-03	5.00E-03	1.03E-01		
B3 2-3	106-93-4	SW8260B	8/31/2009	-2	-3	9.07E-04	U	9.07E-04	5.00E-03	5.00E-03	1.03E-01		
B4 14.5-15	106-93-4	SW8260B	9/1/2009	-14.5	-15	8.81E-04	U	8.81E-04	5.00E-03	5.00E-03	1.03E-01		
B4 2-2.5	106-93-4	SW8260B	9/1/2009	-2	-2.5	9.40E-04	U	9.40E-04	5.00E-03	5.00E-03	1.03E-01		
B5-1	106-93-4	SW8260B	9/2/2009	-1	-1.5	9.25E-04	U	9.25E-04	5.00E-03	5.00E-03	1.03E-01		
B5-2	106-93-4	SW8260B	9/2/2009	-14.5	-15	8.81E-04	U	8.81E-04	5.00E-03	5.00E-03	1.03E-01		
B6-1	106-93-4	SW8260B	9/2/2009	-0.5	-1	8.55E-04	U	8.55E-04	5.00E-03	5.00E-03	1.03E-01		
B6-2	106-93-4	SW8260B	9/2/2009	-14.5	-15	8.81E-04	U	8.81E-04	5.00E-03	5.00E-03	1.03E-01		
B7 0-1'	106-93-4	SW8260B	11/11/2009	0	-1	5.17E-05	U	5.17E-05	2.50E-04	5.00E-03	1.03E-01		
B7 0-1'	106-93-4	SW8260B	11/11/2009	0	-1	1.02E-03	U	1.02E-03	5.00E-03	5.00E-03	1.03E-01		
B7 14-15'	106-93-4	SW8260B	11/11/2009	-14	-15	5.50E-05	U	5.50E-05	2.50E-04	5.00E-03	1.03E-01		
B7 14-15'	106-93-4	SW8260B	11/11/2009	-14	-15	1.11E-03	U	1.11E-03	5.00E-03	5.00E-03	1.03E-01		
B8-1	106-93-4	SW8260B	9/2/2009	-1	-1.5	8.72E-04	U	8.72E-04	5.00E-03	5.00E-03	1.03E-01		
B8-2	106-93-4	SW8260B	9/2/2009	-14	-15	8.48E-04	U	8.48E-04	5.00E-03	5.00E-03	1.03E-01		
B8-3	106-93-4	SW8260B	9/2/2009	-8	-8.5	9.19E-04	U	9.19E-04	5.00E-03	5.00E-03	1.03E-01		
B9 0-1'	106-93-4	SW8260B	11/11/2009	0	-1	1.20E-03	U	1.20E-03	5.00E-03	5.00E-03	1.03E-01		
B9 0-1'	106-93-4	SW8260B	11/11/2009	0	-1	5.77E-05	U	5.77E-05	2.50E-04	5.00E-03	1.03E-01		
B9 14-15'	106-93-4	SW8260B	11/11/2009	-14	-15	5.44E-05	U	5.44E-05	2.50E-04	5.00E-03	1.03E-01		
B9 14-15'	106-93-4	SW8260B	11/11/2009	-14	-15	1.10E-03	U	1.10E-03	5.00E-03	5.00E-03	1.03E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,2-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	95-50-1	SW8260B	8/31/2009	0	-1	7.20E-04	U	7.20E-04	5.00E-03	6.00E+01	8.00E+02		
B1 0-1	95-50-1	SW8270C	8/31/2009	0	-1	7.29E-02	U	7.29E-02	3.30E-01	6.00E+01	8.00E+02		
B1 0-1'	95-50-1	SW8270C	11/11/2009	0	-1	7.54E-02	U	7.54E-02	3.30E-01	6.00E+01	8.00E+02		
B1 0-1'	95-50-1	SW8260B	11/11/2009	0	-1	1.07E-03	U	1.07E-03	5.00E-03	6.00E+01	8.00E+02		
B1 14-15'	95-50-1	SW8270C	11/11/2009	-14	-15	6.78E-02	U	6.78E-02	3.30E-01	6.00E+01	8.00E+02		
B1 14-15'	95-50-1	SW8260B	11/11/2009	-14	-15	7.84E-04	U	7.84E-04	5.00E-03	6.00E+01	8.00E+02		
B10-1	95-50-1	SW8260B	9/2/2009	-2	-3	8.59E-04	U	8.59E-04	5.00E-03	6.00E+01	8.00E+02		
B10-1	95-50-1	SW8270C	9/2/2009	-2	-3	8.70E-02	U	8.70E-02	3.30E-01	6.00E+01	8.00E+02		
B10-2	95-50-1	SW8270C	9/2/2009	-13	-14	7.40E-02	U	7.40E-02	3.30E-01	6.00E+01	8.00E+02		
B10-2	95-50-1	SW8260B	9/2/2009	-13	-14	7.31E-04	U	7.31E-04	5.00E-03	6.00E+01	8.00E+02		
B2 1-1.5	95-50-1	SW8260B	9/1/2009	-1	-1.5	6.80E-04	U	6.80E-04	5.00E-03	6.00E+01	8.00E+02		
B2 1-1.5	95-50-1	SW8270C	9/1/2009	-1	-1.5	6.89E-02	U	6.89E-02	3.30E-01	6.00E+01	8.00E+02		
B2 21-22.5	95-50-1	SW8270C	9/1/2009	-21	-22.5	8.15E-02	U	8.15E-02	3.30E-01	6.00E+01	8.00E+02		
B2 21-22.5	95-50-1	SW8260B	9/1/2009	-21	-22.5	8.05E-04	U	8.05E-04	5.00E-03	6.00E+01	8.00E+02		
B3 12-13	95-50-1	SW8270C	8/31/2009	-12	-13	6.56E-02	U	6.56E-02	3.30E-01	6.00E+01	8.00E+02		
B3 12-13	95-50-1	SW8260B	8/31/2009	-12	-13	6.47E-04	U	6.47E-04	5.00E-03	6.00E+01	8.00E+02		
B3 2-3	95-50-1	SW8270C	8/31/2009	-2	-3	7.67E-02	U	7.67E-02	3.30E-01	6.00E+01	8.00E+02		
B3 2-3	95-50-1	SW8260B	8/31/2009	-2	-3	7.57E-04	U	7.57E-04	5.00E-03	6.00E+01	8.00E+02		
B4 14.5-15	95-50-1	SW8260B	9/1/2009	-14.5	-15	7.35E-04	U	7.35E-04	5.00E-03	6.00E+01	8.00E+02		
B4 14-14.5	95-50-1	SW8270C	9/1/2009	-14	-14.5	7.36E-02	U	7.36E-02	3.30E-01	6.00E+01	8.00E+02		
B4 2-2.5	95-50-1	SW8270C	9/1/2009	-2	-2.5	7.95E-02	U	7.95E-02	3.30E-01	6.00E+01	8.00E+02		
B4 2-2.5	95-50-1	SW8260B	9/1/2009	-2	-2.5	7.85E-04	U	7.85E-04	5.00E-03	6.00E+01	8.00E+02		
B5-1	95-50-1	SW8270C	9/2/2009	-1	-1.5	7.82E-02	U	7.82E-02	3.30E-01	6.00E+01	8.00E+02		
B5-1	95-50-1	SW8260B	9/2/2009	-1	-1.5	7.72E-04	U	7.72E-04	5.00E-03	6.00E+01	8.00E+02		
B5-2	95-50-1	SW8270C	9/2/2009	-14.5	-15	7.45E-02	U	7.45E-02	3.30E-01	6.00E+01	8.00E+02		
B5-2	95-50-1	SW8260B	9/2/2009	-14.5	-15	7.35E-04	U	7.35E-04	5.00E-03	6.00E+01	8.00E+02		
B6-1	95-50-1	SW8260B	9/2/2009	-0.5	-1	7.13E-04	U	7.13E-04	5.00E-03	6.00E+01	8.00E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,2-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6-1	95-50-1	SW8270C	9/2/2009	-0.5	-1	7.22E-02	U	7.22E-02	3.30E-01	6.00E+01	8.00E+02		
B6-2	95-50-1	SW8270C	9/2/2009	-14.5	-15	7.45E-02	U	7.45E-02	3.30E-01	6.00E+01	8.00E+02		
B6-2	95-50-1	SW8260B	9/2/2009	-14.5	-15	7.35E-04	U	7.35E-04	5.00E-03	6.00E+01	8.00E+02		
B7 0-1'	95-50-1	SW8260B	11/11/2009	0	-1	8.47E-04	U	8.47E-04	5.00E-03	6.00E+01	8.00E+02		
B7 0-1'	95-50-1	SW8270C	11/11/2009	0	-1	6.96E-02	U	6.96E-02	3.30E-01	6.00E+01	8.00E+02		
B7 14-15'	95-50-1	SW8270C	11/11/2009	-14	-15	7.17E-02	U	7.17E-02	3.30E-01	6.00E+01	8.00E+02		
B7 14-15'	95-50-1	SW8260B	11/11/2009	-14	-15	9.27E-04	U	9.27E-04	5.00E-03	6.00E+01	8.00E+02		
B8-1	95-50-1	SW8260B	9/2/2009	-1	-1.5	7.27E-04	U	7.27E-04	5.00E-03	6.00E+01	8.00E+02		
B8-1	95-50-1	SW8270C	9/2/2009	-1	-1.5	7.37E-02	U	7.37E-02	3.30E-01	6.00E+01	8.00E+02		
B8-2	95-50-1	SW8270C	9/2/2009	-14	-15	7.17E-02	U	7.17E-02	3.30E-01	6.00E+01	8.00E+02		
B8-2	95-50-1	SW8260B	9/2/2009	-14	-15	7.07E-04	U	7.07E-04	5.00E-03	6.00E+01	8.00E+02		
B8-3	95-50-1	SW8260B	9/2/2009	-8	-8.5	7.67E-04	U	7.67E-04	5.00E-03	6.00E+01	8.00E+02		
B9 0-1'	95-50-1	SW8260B	11/11/2009	0	-1	9.98E-04	U	9.98E-04	5.00E-03	6.00E+01	8.00E+02		
B9 0-1'	95-50-1	SW8270C	11/11/2009	0	-1	7.35E-02	U	7.35E-02	3.30E-01	6.00E+01	8.00E+02		
B9 14-15'	95-50-1	SW8260B	11/11/2009	-14	-15	9.15E-04	U	9.15E-04	5.00E-03	6.00E+01	8.00E+02		
B9 14-15'	95-50-1	SW8270C	11/11/2009	-14	-15	7.14E-02	U	7.14E-02	3.30E-01	6.00E+01	8.00E+02		

1,2-Dichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	107-06-2	SW8260B	8/31/2009	0	-1	7.85E-04	U	7.85E-04	5.00E-03	5.00E-01	4.67E-01		
B1 0-1'	107-06-2	SW8260B	11/11/2009	0	-1	1.17E-03	U	1.17E-03	5.00E-03	5.00E-01	4.67E-01		
B1 14-15'	107-06-2	SW8260B	11/11/2009	-14	-15	8.55E-04	U	8.55E-04	5.00E-03	5.00E-01	4.67E-01		
B10-1	107-06-2	SW8260B	9/2/2009	-2	-3	9.36E-04	U	9.36E-04	5.00E-03	5.00E-01	4.67E-01		
B10-2	107-06-2	SW8260B	9/2/2009	-13	-14	7.97E-04	U	7.97E-04	5.00E-03	5.00E-01	4.67E-01		
B2 1-1.5	107-06-2	SW8260B	9/1/2009	-1	-1.5	7.42E-04	U	7.42E-04	5.00E-03	5.00E-01	4.67E-01		
B2 21-22.5	107-06-2	SW8260B	9/1/2009	-21	-22.5	8.78E-04	U	8.78E-04	5.00E-03	5.00E-01	4.67E-01		
B3 12-13	107-06-2	SW8260B	8/31/2009	-12	-13	7.06E-04	U	7.06E-04	5.00E-03	5.00E-01	4.67E-01		
B3 2-3	107-06-2	SW8260B	8/31/2009	-2	-3	8.25E-04	U	8.25E-04	5.00E-03	5.00E-01	4.67E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,2-Dichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 14.5-15	107-06-2	SW8260B	9/1/2009	-14.5	-15	8.02E-04	U	8.02E-04	5.00E-03	5.00E-01	4.67E-01		
B4 2-2.5	107-06-2	SW8260B	9/1/2009	-2	-2.5	8.56E-04	U	8.56E-04	5.00E-03	5.00E-01	4.67E-01		
B5-1	107-06-2	SW8260B	9/2/2009	-1	-1.5	8.42E-04	U	8.42E-04	5.00E-03	5.00E-01	4.67E-01		
B5-2	107-06-2	SW8260B	9/2/2009	-14.5	-15	8.02E-04	U	8.02E-04	5.00E-03	5.00E-01	4.67E-01		
B6-1	107-06-2	SW8260B	9/2/2009	-0.5	-1	7.78E-04	U	7.78E-04	5.00E-03	5.00E-01	4.67E-01		
B6-2	107-06-2	SW8260B	9/2/2009	-14.5	-15	8.02E-04	U	8.02E-04	5.00E-03	5.00E-01	4.67E-01		
B7 0-1'	107-06-2	SW8260B	11/11/2009	0	-1	9.23E-04	U	9.23E-04	5.00E-03	5.00E-01	4.67E-01		
B7 14-15'	107-06-2	SW8260B	11/11/2009	-14	-15	1.01E-03	U	1.01E-03	5.00E-03	5.00E-01	4.67E-01		
B8-1	107-06-2	SW8260B	9/2/2009	-1	-1.5	7.93E-04	U	7.93E-04	5.00E-03	5.00E-01	4.67E-01		
B8-2	107-06-2	SW8260B	9/2/2009	-14	-15	7.71E-04	U	7.71E-04	5.00E-03	5.00E-01	4.67E-01		
B8-3	107-06-2	SW8260B	9/2/2009	-8	-8.5	8.36E-04	U	8.36E-04	5.00E-03	5.00E-01	4.67E-01		
B9 0-1'	107-06-2	SW8260B	11/11/2009	0	-1	1.09E-03	U	1.09E-03	5.00E-03	5.00E-01	4.67E-01		
B9 14-15'	107-06-2	SW8260B	11/11/2009	-14	-15	9.98E-04	U	9.98E-04	5.00E-03	5.00E-01	4.67E-01		

1,2-Dichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	78-87-5	SW8260B	8/31/2009	0	-1	1.00E-03	U	1.00E-03	5.00E-03	5.00E-01	2.52E+01		
B1 0-1'	78-87-5	SW8260B	11/11/2009	0	-1	1.50E-03	U	1.50E-03	5.00E-03	5.00E-01	2.52E+01		
B1 14-15'	78-87-5	SW8260B	11/11/2009	-14	-15	1.09E-03	U	1.09E-03	5.00E-03	5.00E-01	2.52E+01		
B10-1	78-87-5	SW8260B	9/2/2009	-2	-3	1.20E-03	U	1.20E-03	5.00E-03	5.00E-01	2.52E+01		
B10-2	78-87-5	SW8260B	9/2/2009	-13	-14	1.02E-03	U	1.02E-03	5.00E-03	5.00E-01	2.52E+01		
B2 1-1.5	78-87-5	SW8260B	9/1/2009	-1	-1.5	9.50E-04	U	9.49E-04	5.00E-03	5.00E-01	2.52E+01		
B2 21-22.5	78-87-5	SW8260B	9/1/2009	-21	-22.5	1.12E-03	U	1.12E-03	5.00E-03	5.00E-01	2.52E+01		
B3 12-13	78-87-5	SW8260B	8/31/2009	-12	-13	9.04E-04	U	9.03E-04	5.00E-03	5.00E-01	2.52E+01		
B3 2-3	78-87-5	SW8260B	8/31/2009	-2	-3	1.06E-03	U	1.06E-03	5.00E-03	5.00E-01	2.52E+01		
B4 14.5-15	78-87-5	SW8260B	9/1/2009	-14.5	-15	1.03E-03	U	1.03E-03	5.00E-03	5.00E-01	2.52E+01		
B4 2-2.5	78-87-5	SW8260B	9/1/2009	-2	-2.5	1.10E-03	U	1.10E-03	5.00E-03	5.00E-01	2.52E+01		
B5-1	78-87-5	SW8260B	9/2/2009	-1	-1.5	1.08E-03	U	1.08E-03	5.00E-03	5.00E-01	2.52E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,2-Dichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B5-2	78-87-5	SW8260B	9/2/2009	-14.5	-15	1.03E-03	U	1.03E-03	5.00E-03	5.00E-01	2.52E+01		
B6-1	78-87-5	SW8260B	9/2/2009	-0.5	-1	9.95E-04	U	9.95E-04	5.00E-03	5.00E-01	2.52E+01		
B6-2	78-87-5	SW8260B	9/2/2009	-14.5	-15	1.03E-03	U	1.03E-03	5.00E-03	5.00E-01	2.52E+01		
B7 0-1'	78-87-5	SW8260B	11/11/2009	0	-1	1.18E-03	U	1.18E-03	5.00E-03	5.00E-01	2.52E+01		
B7 14-15'	78-87-5	SW8260B	11/11/2009	-14	-15	1.29E-03	U	1.29E-03	5.00E-03	5.00E-01	2.52E+01		
B8-1	78-87-5	SW8260B	9/2/2009	-1	-1.5	1.02E-03	U	1.02E-03	5.00E-03	5.00E-01	2.52E+01		
B8-2	78-87-5	SW8260B	9/2/2009	-14	-15	9.87E-04	U	9.87E-04	5.00E-03	5.00E-01	2.52E+01		
B8-3	78-87-5	SW8260B	9/2/2009	-8	-8.5	1.07E-03	U	1.07E-03	5.00E-03	5.00E-01	2.52E+01		
B9 0-1'	78-87-5	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	5.00E-03	5.00E-01	2.52E+01		
B9 14-15'	78-87-5	SW8260B	11/11/2009	-14	-15	1.28E-03	U	1.28E-03	5.00E-03	5.00E-01	2.52E+01		

1,2-Diphenylhydrazine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	122-66-7	SW8270C	8/31/2009	0	-1	1.07E-02	U	1.07E-02	3.33E-02	3.58E-02	3.58E+00		
B1 0-1	122-66-7	SW8270C	8/31/2009	0	-1	2.31E-02	U	2.31E-02	3.30E-01	3.58E-02	3.58E+00		
B1 0-1'	122-66-7	SW8270C	11/11/2009	0	-1	1.11E-02	U	1.11E-02	3.30E-02	3.58E-02	3.58E+00		
B1 14-15'	122-66-7	SW8270C	11/11/2009	-14	-15	1.00E-02	U	9.95E-03	3.30E-02	3.58E-02	3.58E+00		
B10-1	122-66-7	SW8270C	9/2/2009	-2	-3	2.76E-02	U	2.76E-02	3.30E-01	3.58E-02	3.58E+00		
B10-1	122-66-7	SW8270C	9/2/2009	-2	-3	1.28E-02	U	1.28E-02	3.33E-02	3.58E-02	3.58E+00		
B10-2	122-66-7	SW8270C	9/2/2009	-13	-14	1.09E-02	U	1.09E-02	3.33E-02	3.58E-02	3.58E+00		
B10-2	122-66-7	SW8270C	9/2/2009	-13	-14	2.35E-02	U	2.35E-02	3.30E-01	3.58E-02	3.58E+00		
B2 1-1.5	122-66-7	SW8270C	9/1/2009	-1	-1.5	1.01E-02	U	1.01E-02	3.33E-02	3.58E-02	3.58E+00		
B2 1-1.5	122-66-7	SW8270C	9/1/2009	-1	-1.5	2.19E-02	U	2.19E-02	3.30E-01	3.58E-02	3.58E+00		
B2 21-22.5	122-66-7	SW8270C	9/1/2009	-21	-22.5	2.59E-02	U	2.59E-02	3.30E-01	3.58E-02	3.58E+00		
B2 21-22.5	122-66-7	SW8270C	9/1/2009	-21	-22.5	1.20E-02	U	1.20E-02	3.33E-02	3.58E-02	3.58E+00		
B3 12-13	122-66-7	SW8270C	8/31/2009	-12	-13	2.08E-02	U	2.08E-02	3.30E-01	3.58E-02	3.58E+00		
B3 12-13	122-66-7	SW8270C	8/31/2009	-12	-13	9.65E-03	U	9.65E-03	3.33E-02	3.58E-02	3.58E+00		
B3 2-3	122-66-7	SW8270C	8/31/2009	-2	-3	1.13E-02	U	1.13E-02	3.33E-02	3.58E-02	3.58E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,2-Diphenylhydrazine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B3 2-3	122-66-7	SW8270C	8/31/2009	-2	-3	2.43E-02	U	2.43E-02	3.30E-01	3.58E-02	3.58E+00		
B4 14-14.5	122-66-7	SW8270C	9/1/2009	-14	-14.5	2.34E-02	U	2.34E-02	3.30E-01	3.58E-02	3.58E+00		
B4 14-14.5	122-66-7	SW8270C	9/1/2009	-14	-14.5	1.08E-02	U	1.08E-02	3.33E-02	3.58E-02	3.58E+00		
B4 2-2.5	122-66-7	SW8270C	9/1/2009	-2	-2.5	1.17E-02	U	1.17E-02	3.33E-02	3.58E-02	3.58E+00		
B4 2-2.5	122-66-7	SW8270C	9/1/2009	-2	-2.5	2.52E-02	U	2.52E-02	3.30E-01	3.58E-02	3.58E+00		
B5-1	122-66-7	SW8270C	9/2/2009	-1	-1.5	2.48E-02	U	2.48E-02	3.30E-01	3.58E-02	3.58E+00		
B5-1	122-66-7	SW8270C	9/2/2009	-1	-1.5	1.15E-02	U	1.15E-02	3.33E-02	3.58E-02	3.58E+00		
B5-2	122-66-7	SW8270C	9/2/2009	-14.5	-15	1.10E-02	U	1.10E-02	3.33E-02	3.58E-02	3.58E+00		
B5-2	122-66-7	SW8270C	9/2/2009	-14.5	-15	2.36E-02	U	2.36E-02	3.30E-01	3.58E-02	3.58E+00		
B6-1	122-66-7	SW8270C	9/2/2009	-0.5	-1	1.06E-02	U	1.06E-02	3.33E-02	3.58E-02	3.58E+00		
B6-1	122-66-7	SW8270C	9/2/2009	-0.5	-1	2.29E-02	U	2.29E-02	3.30E-01	3.58E-02	3.58E+00		
B6-2	122-66-7	SW8270C	9/2/2009	-14.5	-15	1.10E-02	U	1.10E-02	3.33E-02	3.58E-02	3.58E+00		
B6-2	122-66-7	SW8270C	9/2/2009	-14.5	-15	2.36E-02	U	2.36E-02	3.30E-01	3.58E-02	3.58E+00		
B7 0-1'	122-66-7	SW8270C	11/11/2009	0	-1	1.02E-02	U	1.02E-02	3.30E-02	3.58E-02	3.58E+00		
B7 14-15'	122-66-7	SW8270C	11/11/2009	-14	-15	1.05E-02	U	1.05E-02	3.30E-02	3.58E-02	3.58E+00		
B8-1	122-66-7	SW8270C	9/2/2009	-1	-1.5	2.34E-02	U	2.34E-02	3.30E-01	3.58E-02	3.58E+00		
B8-1	122-66-7	SW8270C	9/2/2009	-1	-1.5	1.08E-02	U	1.08E-02	3.33E-02	3.58E-02	3.58E+00		
B8-2	122-66-7	SW8270C	9/2/2009	-14	-15	1.05E-02	U	1.05E-02	3.33E-02	3.58E-02	3.58E+00		
B8-2	122-66-7	SW8270C	9/2/2009	-14	-15	2.27E-02	U	2.27E-02	3.30E-01	3.58E-02	3.58E+00		
B9 0-1'	122-66-7	SW8270C	11/11/2009	0	-1	1.08E-02	U	1.08E-02	3.30E-02	3.58E-02	3.58E+00		
B9 14-15'	122-66-7	SW8270C	11/11/2009	-14	-15	1.05E-02	U	1.05E-02	3.30E-02	3.58E-02	3.58E+00		

1,3,5 Trinitrobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 1-2 FT	99-35-4	SW-846 8	8/31/2009	-1	-2	3.82E-01	U	3.82E-01	1.00E-01	3.07E+02	3.07E+04		
B1 13-14	99-35-4	SW-846 8	8/31/2009	-13	-14	3.82E-01	U	3.82E-01	1.00E-01	3.07E+02	3.07E+04		
B10 1 - 2	99-35-4	SW-846 8	9/2/2009	-1	-2	4.54E-01	U	4.54E-01	1.00E-01	3.07E+02	3.07E+04		
B10 11.5 - 1	99-35-4	SW-846 8	9/2/2009	-11.5	-12	4.69E-01	U	4.69E-01	1.00E-01	3.07E+02	3.07E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,3,5 Trinitrobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 0.5-1.0	99-35-4	SW-846 8	9/1/2009	-0.5	-1	3.82E-01	U	3.82E-01	1.00E-01	3.07E+02	3.07E+04		
B2 21-21.5	99-35-4	SW-846 8	9/1/2009	-21	-21.5	3.82E-01	U	3.82E-01	1.00E-01	3.07E+02	3.07E+04		
B3 0-1	99-35-4	SW-846 8	8/31/2009	0	-1	3.82E-01	U	3.82E-01	1.00E-01	3.07E+02	3.07E+04		
B3 14-15	99-35-4	SW-846 8	8/31/2009	-14	-15	3.82E-01	U	3.82E-01	1.00E-01	3.07E+02	3.07E+04		
B4 13-14	99-35-4	SW-846 8	9/1/2009	-13	-14	3.82E-01	U	3.82E-01	1.00E-01	3.07E+02	3.07E+04		
B4 3-3.5	99-35-4	SW-846 8	9/1/2009	-3	-3.5	3.82E-01	U	3.82E-01	1.00E-01	3.07E+02	3.07E+04		
B5 14 - 14.	99-35-4	SW-846 8	9/2/2009	-14	-14.5	4.48E-01	U	4.48E-01	1.00E-01	3.07E+02	3.07E+04		
B5 0.5 - 1 M	99-35-4	SW-846 8	9/2/2009	-0.5	-1	4.66E-01	U	4.66E-01	1.00E-01	3.07E+02	3.07E+04		
B6 1 - 1.5	99-35-4	SW-846 8	9/2/2009	-1	-1.5	4.49E-01	U	4.49E-01	1.00E-01	3.07E+02	3.07E+04		
B6 14 - 14.5	99-35-4	SW-846 8	9/2/2009	-14	-14.5	4.40E-01	U	4.40E-01	1.00E-01	3.07E+02	3.07E+04		
B7 0-1 FT	99-35-4	SW-846 8	8/31/2009	0	-1	3.82E-01	U	3.82E-01	1.00E-01	3.07E+02	3.07E+04		
B7 14-15	99-35-4	SW-846 8	8/31/2009	-14	-15	3.82E-01	U	3.82E-01	1.00E-01	3.07E+02	3.07E+04		
B8 13 - 14	99-35-4	SW-846 8	9/2/2009	-13	-14	4.34E-01	U	4.34E-01	1.00E-01	3.07E+02	3.07E+04		
B8 2.75 - 3	99-35-4	SW-846 8	9/2/2009	-2.75	-3	4.79E-01	U	4.79E-01	1.00E-01	3.07E+02	3.07E+04		
B9 14-15	99-35-4	SW-846 8	8/31/2009	-14	-15	3.82E-01	U	3.82E-01	1.00E-01	3.07E+02	3.07E+04		
B9-0-2 FT	99-35-4	SW-846 8	8/31/2009	0	-2	3.82E-01	U	3.82E-01	1.00E-01	3.07E+02	3.07E+04		

1,3,5-Trimethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	108-67-8	SW8260B	8/31/2009	0	-1	8.61E-04	U	8.60E-04	5.00E-03	5.11E+02	1.17E+02		
B1 0-1'	108-67-8	SW8260B	11/11/2009	0	-1	1.29E-03	U	1.29E-03	5.00E-03	5.11E+02	1.17E+02		
B1 14-15'	108-67-8	SW8260B	11/11/2009	-14	-15	9.38E-04	U	9.38E-04	5.00E-03	5.11E+02	1.17E+02		
B10-1	108-67-8	SW8260B	9/2/2009	-2	-3	1.03E-03	U	1.03E-03	5.00E-03	5.11E+02	1.17E+02		
B10-2	108-67-8	SW8260B	9/2/2009	-13	-14	8.74E-04	U	8.74E-04	5.00E-03	5.11E+02	1.17E+02		
B2 1-1.5	108-67-8	SW8260B	9/1/2009	-1	-1.5	8.13E-04	U	8.13E-04	5.00E-03	5.11E+02	1.17E+02		
B2 21-22.5	108-67-8	SW8260B	9/1/2009	-21	-22.5	9.62E-04	U	9.62E-04	5.00E-03	5.11E+02	1.17E+02		
B3 12-13	108-67-8	SW8260B	8/31/2009	-12	-13	7.74E-04	U	7.74E-04	5.00E-03	5.11E+02	1.17E+02		
B3 2-3	108-67-8	SW8260B	8/31/2009	-2	-3	9.05E-04	U	9.05E-04	5.00E-03	5.11E+02	1.17E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,3,5-Trimethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 14.5-15	108-67-8	SW8260B	9/1/2009	-14.5	-15	8.79E-04	U	8.79E-04	5.00E-03	5.11E+02	1.17E+02		
B4 2-2.5	108-67-8	SW8260B	9/1/2009	-2	-2.5	9.38E-04	U	9.38E-04	5.00E-03	5.11E+02	1.17E+02		
B5-1	108-67-8	SW8260B	9/2/2009	-1	-1.5	9.23E-04	U	9.23E-04	5.00E-03	5.11E+02	1.17E+02		
B5-2	108-67-8	SW8260B	9/2/2009	-14.5	-15	8.79E-04	U	8.79E-04	5.00E-03	5.11E+02	1.17E+02		
B6-1	108-67-8	SW8260B	9/2/2009	-0.5	-1	8.52E-04	U	8.53E-04	5.00E-03	5.11E+02	1.17E+02		
B6-2	108-67-8	SW8260B	9/2/2009	-14.5	-15	8.79E-04	U	8.79E-04	5.00E-03	5.11E+02	1.17E+02		
B7 0-1'	108-67-8	SW8260B	11/11/2009	0	-1	1.01E-03	U	1.01E-03	5.00E-03	5.11E+02	1.17E+02		
B7 14-15'	108-67-8	SW8260B	11/11/2009	-14	-15	1.11E-03	U	1.11E-03	5.00E-03	5.11E+02	1.17E+02		
B8-1	108-67-8	SW8260B	9/2/2009	-1	-1.5	8.70E-04	U	8.70E-04	5.00E-03	5.11E+02	1.17E+02		
B8-2	108-67-8	SW8260B	9/2/2009	-14	-15	8.46E-04	U	8.46E-04	5.00E-03	5.11E+02	1.17E+02		
B8-3	108-67-8	SW8260B	9/2/2009	-8	-8.5	9.17E-04	U	9.17E-04	5.00E-03	5.11E+02	1.17E+02		
B9 0-1'	108-67-8	SW8260B	11/11/2009	0	-1	1.20E-03	U	1.20E-03	5.00E-03	5.11E+02	1.17E+02		
B9 14-15'	108-67-8	SW8260B	11/11/2009	-14	-15	1.09E-03	U	1.09E-03	5.00E-03	5.11E+02	1.17E+02		

1,3-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	541-73-1	SW8270C	8/31/2009	0	-1	8.12E-02	U	8.12E-02	3.30E-01	3.07E+02	7.11E+01		
B1 0-1	541-73-1	SW8260B	8/31/2009	0	-1	9.10E-04	U	9.10E-04	5.00E-03	3.07E+02	7.11E+01		
B1 0-1'	541-73-1	SW8260B	11/11/2009	0	-1	1.36E-03	U	1.36E-03	5.00E-03	3.07E+02	7.11E+01		
B1 0-1'	541-73-1	SW8270C	11/11/2009	0	-1	8.39E-02	U	8.39E-02	3.30E-01	3.07E+02	7.11E+01		
B1 14-15'	541-73-1	SW8260B	11/11/2009	-14	-15	9.91E-04	U	9.91E-04	5.00E-03	3.07E+02	7.11E+01		
B1 14-15'	541-73-1	SW8270C	11/11/2009	-14	-15	7.55E-02	U	7.55E-02	3.30E-01	3.07E+02	7.11E+01		
B10-1	541-73-1	SW8270C	9/2/2009	-2	-3	9.68E-02	U	9.68E-02	3.30E-01	3.07E+02	7.11E+01		
B10-1	541-73-1	SW8260B	9/2/2009	-2	-3	1.09E-03	U	1.09E-03	5.00E-03	3.07E+02	7.11E+01		
B10-2	541-73-1	SW8270C	9/2/2009	-13	-14	8.24E-02	U	8.24E-02	3.30E-01	3.07E+02	7.11E+01		
B10-2	541-73-1	SW8260B	9/2/2009	-13	-14	9.24E-04	U	9.24E-04	5.00E-03	3.07E+02	7.11E+01		
B2 1-1.5	541-73-1	SW8260B	9/1/2009	-1	-1.5	8.60E-04	U	8.60E-04	5.00E-03	3.07E+02	7.11E+01		
B2 1-1.5	541-73-1	SW8270C	9/1/2009	-1	-1.5	7.67E-02	U	7.67E-02	3.30E-01	3.07E+02	7.11E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,3-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 21-22.5	541-73-1	SW8260B	9/1/2009	-21	-22.5	1.02E-03	U	1.02E-03	5.00E-03	3.07E+02	7.11E+01		
B2 21-22.5	541-73-1	SW8270C	9/1/2009	-21	-22.5	9.08E-02	U	9.08E-02	3.30E-01	3.07E+02	7.11E+01		
B3 12-13	541-73-1	SW8260B	8/31/2009	-12	-13	8.19E-04	U	8.19E-04	5.00E-03	3.07E+02	7.11E+01		
B3 12-13	541-73-1	SW8270C	8/31/2009	-12	-13	7.30E-02	U	7.30E-02	3.30E-01	3.07E+02	7.11E+01		
B3 2-3	541-73-1	SW8270C	8/31/2009	-2	-3	8.53E-02	U	8.53E-02	3.30E-01	3.07E+02	7.11E+01		
B3 2-3	541-73-1	SW8260B	8/31/2009	-2	-3	9.57E-04	U	9.57E-04	5.00E-03	3.07E+02	7.11E+01		
B4 14.5-15	541-73-1	SW8260B	9/1/2009	-14.5	-15	9.30E-04	U	9.30E-04	5.00E-03	3.07E+02	7.11E+01		
B4 14-14.5	541-73-1	SW8270C	9/1/2009	-14	-14.5	8.19E-02	U	8.19E-02	3.30E-01	3.07E+02	7.11E+01		
B4 2-2.5	541-73-1	SW8270C	9/1/2009	-2	-2.5	8.85E-02	U	8.85E-02	3.30E-01	3.07E+02	7.11E+01		
B4 2-2.5	541-73-1	SW8260B	9/1/2009	-2	-2.5	9.92E-04	U	9.92E-04	5.00E-03	3.07E+02	7.11E+01		
B5-1	541-73-1	SW8270C	9/2/2009	-1	-1.5	8.70E-02	U	8.70E-02	3.30E-01	3.07E+02	7.11E+01		
B5-1	541-73-1	SW8260B	9/2/2009	-1	-1.5	9.76E-04	U	9.76E-04	5.00E-03	3.07E+02	7.11E+01		
B5-2	541-73-1	SW8260B	9/2/2009	-14.5	-15	9.30E-04	U	9.30E-04	5.00E-03	3.07E+02	7.11E+01		
B5-2	541-73-1	SW8270C	9/2/2009	-14.5	-15	8.29E-02	U	8.29E-02	3.30E-01	3.07E+02	7.11E+01		
B6-1	541-73-1	SW8260B	9/2/2009	-0.5	-1	9.02E-04	U	9.02E-04	5.00E-03	3.07E+02	7.11E+01		
B6-1	541-73-1	SW8270C	9/2/2009	-0.5	-1	8.04E-02	U	8.04E-02	3.30E-01	3.07E+02	7.11E+01		
B6-2	541-73-1	SW8260B	9/2/2009	-14.5	-15	9.30E-04	U	9.30E-04	5.00E-03	3.07E+02	7.11E+01		
B6-2	541-73-1	SW8270C	9/2/2009	-14.5	-15	8.29E-02	U	8.29E-02	3.30E-01	3.07E+02	7.11E+01		
B7 0-1'	541-73-1	SW8260B	11/11/2009	0	-1	1.07E-03	U	1.07E-03	5.00E-03	3.07E+02	7.11E+01		
B7 0-1'	541-73-1	SW8270C	11/11/2009	0	-1	7.75E-02	U	7.75E-02	3.30E-01	3.07E+02	7.11E+01		
B7 14-15'	541-73-1	SW8270C	11/11/2009	-14	-15	7.99E-02	U	7.99E-02	3.30E-01	3.07E+02	7.11E+01		
B7 14-15'	541-73-1	SW8260B	11/11/2009	-14	-15	1.18E-03	U	1.18E-03	5.00E-03	3.07E+02	7.11E+01		
B8-1	541-73-1	SW8270C	9/2/2009	-1	-1.5	8.20E-02	U	8.20E-02	3.30E-01	3.07E+02	7.11E+01		
B8-1	541-73-1	SW8260B	9/2/2009	-1	-1.5	9.20E-04	U	9.20E-04	5.00E-03	3.07E+02	7.11E+01		
B8-2	541-73-1	SW8260B	9/2/2009	-14	-15	8.95E-04	U	8.95E-04	5.00E-03	3.07E+02	7.11E+01		
B8-2	541-73-1	SW8270C	9/2/2009	-14	-15	7.98E-02	U	7.98E-02	3.30E-01	3.07E+02	7.11E+01		
B8-3	541-73-1	SW8260B	9/2/2009	-8	-8.5	9.70E-04	U	9.70E-04	5.00E-03	3.07E+02	7.11E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,3-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B9 0-1'	541-73-1	SW8260B	11/11/2009	0	-1	1.27E-03	U	1.27E-03	5.00E-03	3.07E+02	7.11E+01		
B9 0-1'	541-73-1	SW8270C	11/11/2009	0	-1	8.18E-02	U	8.18E-02	3.30E-01	3.07E+02	7.11E+01		
B9 14-15'	541-73-1	SW8260B	11/11/2009	-14	-15	1.16E-03	U	1.16E-03	5.00E-03	3.07E+02	7.11E+01		
B9 14-15'	541-73-1	SW8270C	11/11/2009	-14	-15	7.95E-02	U	7.95E-02	3.30E-01	3.07E+02	7.11E+01		

1,3-Dichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	142-28-9	SW8260B	8/31/2009	0	-1	6.76E-04	U	6.76E-04	5.00E-03	2.86E+00	8.04E+01		
B1 0-1'	142-28-9	SW8260B	11/11/2009	0	-1	1.01E-03	U	1.01E-03	5.00E-03	2.86E+00	8.04E+01		
B1 14-15'	142-28-9	SW8260B	11/11/2009	-14	-15	7.37E-04	U	7.37E-04	5.00E-03	2.86E+00	8.04E+01		
B10-1	142-28-9	SW8260B	9/2/2009	-2	-3	8.06E-04	U	8.06E-04	5.00E-03	2.86E+00	8.04E+01		
B10-2	142-28-9	SW8260B	9/2/2009	-13	-14	6.86E-04	U	6.86E-04	5.00E-03	2.86E+00	8.04E+01		
B2 1-1.5	142-28-9	SW8260B	9/1/2009	-1	-1.5	6.38E-04	U	6.38E-04	5.00E-03	2.86E+00	8.04E+01		
B2 21-22.5	142-28-9	SW8260B	9/1/2009	-21	-22.5	7.55E-04	U	7.56E-04	5.00E-03	2.86E+00	8.04E+01		
B3 12-13	142-28-9	SW8260B	8/31/2009	-12	-13	6.07E-04	U	6.08E-04	5.00E-03	2.86E+00	8.04E+01		
B3 2-3	142-28-9	SW8260B	8/31/2009	-2	-3	7.10E-04	U	7.10E-04	5.00E-03	2.86E+00	8.04E+01		
B4 14.5-15	142-28-9	SW8260B	9/1/2009	-14.5	-15	6.90E-04	U	6.90E-04	5.00E-03	2.86E+00	8.04E+01		
B4 2-2.5	142-28-9	SW8260B	9/1/2009	-2	-2.5	7.36E-04	U	7.36E-04	5.00E-03	2.86E+00	8.04E+01		
B5-1	142-28-9	SW8260B	9/2/2009	-1	-1.5	7.24E-04	U	7.24E-04	5.00E-03	2.86E+00	8.04E+01		
B5-2	142-28-9	SW8260B	9/2/2009	-14.5	-15	6.90E-04	U	6.90E-04	5.00E-03	2.86E+00	8.04E+01		
B6-1	142-28-9	SW8260B	9/2/2009	-0.5	-1	6.69E-04	U	6.69E-04	5.00E-03	2.86E+00	8.04E+01		
B6-2	142-28-9	SW8260B	9/2/2009	-14.5	-15	6.90E-04	U	6.90E-04	5.00E-03	2.86E+00	8.04E+01		
B7 0-1'	142-28-9	SW8260B	11/11/2009	0	-1	7.95E-04	U	7.95E-04	5.00E-03	2.86E+00	8.04E+01		
B7 14-15'	142-28-9	SW8260B	11/11/2009	-14	-15	8.71E-04	U	8.71E-04	5.00E-03	2.86E+00	8.04E+01		
B8-1	142-28-9	SW8260B	9/2/2009	-1	-1.5	6.83E-04	U	6.83E-04	5.00E-03	2.86E+00	8.04E+01		
B8-2	142-28-9	SW8260B	9/2/2009	-14	-15	6.64E-04	U	6.64E-04	5.00E-03	2.86E+00	8.04E+01		
B8-3	142-28-9	SW8260B	9/2/2009	-8	-8.5	7.20E-04	U	7.20E-04	5.00E-03	2.86E+00	8.04E+01		
B9 0-1'	142-28-9	SW8260B	11/11/2009	0	-1	9.36E-04	U	9.36E-04	5.00E-03	2.86E+00	8.04E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,3-Dichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B9 14-15'	142-28-9	SW8260B	11/11/2009	-14	-15	8.59E-04	U	8.59E-04	5.00E-03	2.86E+00	8.04E+01		

1,3-Dinitrobenzene (DNB)

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 1-2 FT	99-65-0	SW-846 8	8/31/2009	-1	-2	4.91E-01	U	4.91E-01	1.00E-01	1.02E+00	1.02E+02		
B1 13-14	99-65-0	SW-846 8	8/31/2009	-13	-14	4.91E-01	U	4.91E-01	1.00E-01	1.02E+00	1.02E+02		
B10 1 - 2	99-65-0	SW-846 8	9/2/2009	-1	-2	5.83E-01	U	5.83E-01	1.00E-01	1.02E+00	1.02E+02		
B10 11.5 - 1	99-65-0	SW-846 8	9/2/2009	-11.5	-12	6.03E-01	U	6.03E-01	1.00E-01	1.02E+00	1.02E+02		
B2 0.5-1.0	99-65-0	SW-846 8	9/1/2009	-0.5	-1	4.91E-01	U	4.91E-01	1.00E-01	1.02E+00	1.02E+02		
B2 21-21.5	99-65-0	SW-846 8	9/1/2009	-21	-21.5	4.91E-01	U	4.91E-01	1.00E-01	1.02E+00	1.02E+02		
B3 0-1	99-65-0	SW-846 8	8/31/2009	0	-1	4.91E-01	U	4.91E-01	1.00E-01	1.02E+00	1.02E+02		
B3 14-15	99-65-0	SW-846 8	8/31/2009	-14	-15	4.91E-01	U	4.91E-01	1.00E-01	1.02E+00	1.02E+02		
B4 13-14	99-65-0	SW-846 8	9/1/2009	-13	-14	4.91E-01	U	4.91E-01	1.00E-01	1.02E+00	1.02E+02		
B4 3-3.5	99-65-0	SW-846 8	9/1/2009	-3	-3.5	4.91E-01	U	4.91E-01	1.00E-01	1.02E+00	1.02E+02		
B5 14 - 14.	99-65-0	SW-846 8	9/2/2009	-14	-14.5	5.76E-01	U	5.76E-01	1.00E-01	1.02E+00	1.02E+02		
B5 0.5 - 1 M	99-65-0	SW-846 8	9/2/2009	-0.5	-1	6.00E-01	U	6.00E-01	1.00E-01	1.02E+00	1.02E+02		
B6 1 - 1.5	99-65-0	SW-846 8	9/2/2009	-1	-1.5	5.78E-01	U	5.78E-01	1.00E-01	1.02E+00	1.02E+02		
B6 14 - 14.5	99-65-0	SW-846 8	9/2/2009	-14	-14.5	5.65E-01	U	5.65E-01	1.00E-01	1.02E+00	1.02E+02		
B7 0-1 FT	99-65-0	SW-846 8	8/31/2009	0	-1	4.91E-01	U	4.91E-01	1.00E-01	1.02E+00	1.02E+02		
B7 14-15	99-65-0	SW-846 8	8/31/2009	-14	-15	4.91E-01	U	4.91E-01	1.00E-01	1.02E+00	1.02E+02		
B8 13 - 14	99-65-0	SW-846 8	9/2/2009	-13	-14	5.57E-01	U	5.57E-01	1.00E-01	1.02E+00	1.02E+02		
B8 2.75 - 3	99-65-0	SW-846 8	9/2/2009	-2.75	-3	6.16E-01	U	6.16E-01	1.00E-01	1.02E+00	1.02E+02		
B9 14-15	99-65-0	SW-846 8	8/31/2009	-14	-15	4.91E-01	U	4.91E-01	1.00E-01	1.02E+00	1.02E+02		
B9-0-2 FT	99-65-0	SW-846 8	8/31/2009	0	-2	4.91E-01	U	4.91E-01	1.00E-01	1.02E+00	1.02E+02		

1,4-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	106-46-7	SW8270C	8/31/2009	0	-1	7.44E-02	U	7.44E-02	3.30E-01	7.50E+00	2.38E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,4-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	106-46-7	SW8260B	8/31/2009	0	-1	7.37E-04	U	7.37E-04	5.00E-03	7.50E+00	2.38E+03		
B1 0-1'	106-46-7	SW8260B	11/11/2009	0	-1	1.10E-03	U	1.10E-03	5.00E-03	7.50E+00	2.38E+03		
B1 0-1'	106-46-7	SW8270C	11/11/2009	0	-1	7.69E-02	U	7.69E-02	3.30E-01	7.50E+00	2.38E+03		
B1 14-15'	106-46-7	SW8260B	11/11/2009	-14	-15	8.03E-04	U	8.03E-04	5.00E-03	7.50E+00	2.38E+03		
B1 14-15'	106-46-7	SW8270C	11/11/2009	-14	-15	6.92E-02	U	6.92E-02	3.30E-01	7.50E+00	2.38E+03		
B10-1	106-46-7	SW8270C	9/2/2009	-2	-3	8.88E-02	U	8.88E-02	3.30E-01	7.50E+00	2.38E+03		
B10-1	106-46-7	SW8260B	9/2/2009	-2	-3	8.79E-04	U	8.79E-04	5.00E-03	7.50E+00	2.38E+03		
B10-2	106-46-7	SW8260B	9/2/2009	-13	-14	7.49E-04	U	7.49E-04	5.00E-03	7.50E+00	2.38E+03		
B10-2	106-46-7	SW8270C	9/2/2009	-13	-14	7.56E-02	U	7.56E-02	3.30E-01	7.50E+00	2.38E+03		
B2 1-1.5	106-46-7	SW8260B	9/1/2009	-1	-1.5	6.97E-04	U	6.97E-04	5.00E-03	7.50E+00	2.38E+03		
B2 1-1.5	106-46-7	SW8270C	9/1/2009	-1	-1.5	7.03E-02	U	7.03E-02	3.30E-01	7.50E+00	2.38E+03		
B2 21-22.5	106-46-7	SW8260B	9/1/2009	-21	-22.5	8.24E-04	U	8.24E-04	5.00E-03	7.50E+00	2.38E+03		
B2 21-22.5	106-46-7	SW8270C	9/1/2009	-21	-22.5	8.32E-02	U	8.32E-02	3.30E-01	7.50E+00	2.38E+03		
B3 12-13	106-46-7	SW8260B	8/31/2009	-12	-13	6.63E-04	U	6.63E-04	5.00E-03	7.50E+00	2.38E+03		
B3 12-13	106-46-7	SW8270C	8/31/2009	-12	-13	6.69E-02	U	6.69E-02	3.30E-01	7.50E+00	2.38E+03		
B3 2-3	106-46-7	SW8270C	8/31/2009	-2	-3	7.82E-02	U	7.82E-02	3.30E-01	7.50E+00	2.38E+03		
B3 2-3	106-46-7	SW8260B	8/31/2009	-2	-3	7.75E-04	U	7.75E-04	5.00E-03	7.50E+00	2.38E+03		
B4 14.5-15	106-46-7	SW8260B	9/1/2009	-14.5	-15	7.53E-04	U	7.53E-04	5.00E-03	7.50E+00	2.38E+03		
B4 14-14.5	106-46-7	SW8270C	9/1/2009	-14	-14.5	7.51E-02	U	7.51E-02	3.30E-01	7.50E+00	2.38E+03		
B4 2-2.5	106-46-7	SW8260B	9/1/2009	-2	-2.5	8.03E-04	U	8.04E-04	5.00E-03	7.50E+00	2.38E+03		
B4 2-2.5	106-46-7	SW8270C	9/1/2009	-2	-2.5	8.11E-02	U	8.11E-02	3.30E-01	7.50E+00	2.38E+03		
B5-1	106-46-7	SW8270C	9/2/2009	-1	-1.5	7.98E-02	U	7.98E-02	3.30E-01	7.50E+00	2.38E+03		
B5-1	106-46-7	SW8260B	9/2/2009	-1	-1.5	7.90E-04	U	7.91E-04	5.00E-03	7.50E+00	2.38E+03		
B5-2	106-46-7	SW8270C	9/2/2009	-14.5	-15	7.60E-02	U	7.60E-02	3.30E-01	7.50E+00	2.38E+03		
B5-2	106-46-7	SW8260B	9/2/2009	-14.5	-15	7.53E-04	U	7.53E-04	5.00E-03	7.50E+00	2.38E+03		
B6-1	106-46-7	SW8260B	9/2/2009	-0.5	-1	7.30E-04	U	7.30E-04	5.00E-03	7.50E+00	2.38E+03		
B6-1	106-46-7	SW8270C	9/2/2009	-0.5	-1	7.37E-02	U	7.37E-02	3.30E-01	7.50E+00	2.38E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1,4-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6-2	106-46-7	SW8260B	9/2/2009	-14.5	-15	7.53E-04	U	7.53E-04	5.00E-03	7.50E+00	2.38E+03		
B6-2	106-46-7	SW8270C	9/2/2009	-14.5	-15	7.60E-02	U	7.60E-02	3.30E-01	7.50E+00	2.38E+03		
B7 0-1'	106-46-7	SW8260B	11/11/2009	0	-1	8.68E-04	U	8.68E-04	5.00E-03	7.50E+00	2.38E+03		
B7 0-1'	106-46-7	SW8270C	11/11/2009	0	-1	7.10E-02	U	7.10E-02	3.30E-01	7.50E+00	2.38E+03		
B7 14-15'	106-46-7	SW8270C	11/11/2009	-14	-15	7.32E-02	U	7.32E-02	3.30E-01	7.50E+00	2.38E+03		
B7 14-15'	106-46-7	SW8260B	11/11/2009	-14	-15	9.50E-04	U	9.50E-04	5.00E-03	7.50E+00	2.38E+03		
B8-1	106-46-7	SW8270C	9/2/2009	-1	-1.5	7.52E-02	U	7.52E-02	3.30E-01	7.50E+00	2.38E+03		
B8-1	106-46-7	SW8260B	9/2/2009	-1	-1.5	7.45E-04	U	7.45E-04	5.00E-03	7.50E+00	2.38E+03		
B8-2	106-46-7	SW8260B	9/2/2009	-14	-15	7.25E-04	U	7.25E-04	5.00E-03	7.50E+00	2.38E+03		
B8-2	106-46-7	SW8270C	9/2/2009	-14	-15	7.31E-02	U	7.31E-02	3.30E-01	7.50E+00	2.38E+03		
B8-3	106-46-7	SW8260B	9/2/2009	-8	-8.5	7.86E-04	U	7.86E-04	5.00E-03	7.50E+00	2.38E+03		
B9 0-1'	106-46-7	SW8260B	11/11/2009	0	-1	1.02E-03	U	1.02E-03	5.00E-03	7.50E+00	2.38E+03		
B9 0-1'	106-46-7	SW8270C	11/11/2009	0	-1	7.50E-02	U	7.50E-02	3.30E-01	7.50E+00	2.38E+03		
B9 14-15'	106-46-7	SW8270C	11/11/2009	-14	-15	7.29E-02	U	7.29E-02	3.30E-01	7.50E+00	2.38E+03		
B9 14-15'	106-46-7	SW8260B	11/11/2009	-14	-15	9.36E-04	U	9.36E-04	5.00E-03	7.50E+00	2.38E+03		

1-Chlorohexane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	544-10-5	SW8260B	8/31/2009	0	-1	4.92E-04	U	4.92E-04	5.00E-03	4.09E+02	8.37E+03		
B1 0-1'	544-10-5	SW8260B	11/11/2009	0	-1	7.34E-04	U	7.34E-04	5.00E-03	4.09E+02	8.37E+03		
B1 14-15'	544-10-5	SW8260B	11/11/2009	-14	-15	5.37E-04	U	5.37E-04	5.00E-03	4.09E+02	8.37E+03		
B10-1	544-10-5	SW8260B	9/2/2009	-2	-3	5.87E-04	U	5.87E-04	5.00E-03	4.09E+02	8.37E+03		
B10-2	544-10-5	SW8260B	9/2/2009	-13	-14	4.99E-04	U	4.99E-04	5.00E-03	4.09E+02	8.37E+03		
B2 1-1.5	544-10-5	SW8260B	9/1/2009	-1	-1.5	4.65E-04	U	4.65E-04	5.00E-03	4.09E+02	8.37E+03		
B2 21-22.5	544-10-5	SW8260B	9/1/2009	-21	-22.5	5.50E-04	U	5.50E-04	5.00E-03	4.09E+02	8.37E+03		
B3 12-13	544-10-5	SW8260B	8/31/2009	-12	-13	4.42E-04	U	4.42E-04	5.00E-03	4.09E+02	8.37E+03		
B3 2-3	544-10-5	SW8260B	8/31/2009	-2	-3	5.17E-04	U	5.17E-04	5.00E-03	4.09E+02	8.37E+03		
B4 14.5-15	544-10-5	SW8260B	9/1/2009	-14.5	-15	5.02E-04	U	5.02E-04	5.00E-03	4.09E+02	8.37E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

1-Chlorohexane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 2-2.5	544-10-5	SW8260B	9/1/2009	-2	-2.5	5.36E-04	U	5.36E-04	5.00E-03	4.09E+02	8.37E+03		
B5-1	544-10-5	SW8260B	9/2/2009	-1	-1.5	5.27E-04	U	5.27E-04	5.00E-03	4.09E+02	8.37E+03		
B5-2	544-10-5	SW8260B	9/2/2009	-14.5	-15	5.02E-04	U	5.02E-04	5.00E-03	4.09E+02	8.37E+03		
B6-1	544-10-5	SW8260B	9/2/2009	-0.5	-1	4.87E-04	U	4.87E-04	5.00E-03	4.09E+02	8.37E+03		
B6-2	544-10-5	SW8260B	9/2/2009	-14.5	-15	5.02E-04	U	5.02E-04	5.00E-03	4.09E+02	8.37E+03		
B7 0-1'	544-10-5	SW8260B	11/11/2009	0	-1	5.80E-04	U	5.79E-04	5.00E-03	4.09E+02	8.37E+03		
B7 14-15'	544-10-5	SW8260B	11/11/2009	-14	-15	6.34E-04	U	6.34E-04	5.00E-03	4.09E+02	8.37E+03		
B8-1	544-10-5	SW8260B	9/2/2009	-1	-1.5	4.97E-04	U	4.97E-04	5.00E-03	4.09E+02	8.37E+03		
B8-2	544-10-5	SW8260B	9/2/2009	-14	-15	4.83E-04	U	4.83E-04	5.00E-03	4.09E+02	8.37E+03		
B8-3	544-10-5	SW8260B	9/2/2009	-8	-8.5	5.24E-04	U	5.24E-04	5.00E-03	4.09E+02	8.37E+03		
B9 0-1'	544-10-5	SW8260B	11/11/2009	0	-1	6.81E-04	U	6.81E-04	5.00E-03	4.09E+02	8.37E+03		
B9 14-15'	544-10-5	SW8260B	11/11/2009	-14	-15	6.25E-04	U	6.25E-04	5.00E-03	4.09E+02	8.37E+03		

2,2-Dichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	594-20-7	SW8260B	8/31/2009	0	-1	9.26E-04	U	9.26E-04	5.00E-03	4.21E+00	2.38E+01		
B1 0-1'	590-20-7	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	5.00E-03				
B1 14-15'	590-20-7	SW8260B	11/11/2009	-14	-15	1.01E-03	U	1.01E-03	5.00E-03				
B10-1	594-20-7	SW8260B	9/2/2009	-2	-3	1.10E-03	U	1.10E-03	5.00E-03	4.21E+00	2.38E+01		
B10-2	594-20-7	SW8260B	9/2/2009	-13	-14	9.40E-04	U	9.40E-04	5.00E-03	4.21E+00	2.38E+01		
B2 1-1.5	594-20-7	SW8260B	9/1/2009	-1	-1.5	8.75E-04	U	8.75E-04	5.00E-03	4.21E+00	2.38E+01		
B2 21-22.5	594-20-7	SW8260B	9/1/2009	-21	-22.5	1.04E-03	U	1.04E-03	5.00E-03	4.21E+00	2.38E+01		
B3 12-13	594-20-7	SW8260B	8/31/2009	-12	-13	8.32E-04	U	8.32E-04	5.00E-03	4.21E+00	2.38E+01		
B3 2-3	594-20-7	SW8260B	8/31/2009	-2	-3	9.73E-04	U	9.73E-04	5.00E-03	4.21E+00	2.38E+01		
B4 14.5-15	594-20-7	SW8260B	9/1/2009	-14.5	-15	9.45E-04	U	9.45E-04	5.00E-03	4.21E+00	2.38E+01		
B4 2-2.5	594-20-7	SW8260B	9/1/2009	-2	-2.5	1.01E-03	U	1.01E-03	5.00E-03	4.21E+00	2.38E+01		
B5-1	594-20-7	SW8260B	9/2/2009	-1	-1.5	9.92E-04	U	9.93E-04	5.00E-03	4.21E+00	2.38E+01		
B5-2	594-20-7	SW8260B	9/2/2009	-14.5	-15	9.45E-04	U	9.45E-04	5.00E-03	4.21E+00	2.38E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2,2-Dichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6-1	594-20-7	SW8260B	9/2/2009	-0.5	-1	9.17E-04	U	9.17E-04	5.00E-03	4.21E+00	2.38E+01		
B6-2	594-20-7	SW8260B	9/2/2009	-14.5	-15	9.45E-04	U	9.45E-04	5.00E-03	4.21E+00	2.38E+01		
B7 0-1'	590-20-7	SW8260B	11/11/2009	0	-1	1.09E-03	U	1.09E-03	5.00E-03				
B7 14-15'	590-20-7	SW8260B	11/11/2009	-14	-15	1.19E-03	U	1.19E-03	5.00E-03				
B8-1	594-20-7	SW8260B	9/2/2009	-1	-1.5	9.35E-04	U	9.35E-04	5.00E-03	4.21E+00	2.38E+01		
B8-2	594-20-7	SW8260B	9/2/2009	-14	-15	9.10E-04	U	9.10E-04	5.00E-03	4.21E+00	2.38E+01		
B8-3	594-20-7	SW8260B	9/2/2009	-8	-8.5	9.86E-04	U	9.86E-04	5.00E-03	4.21E+00	2.38E+01		
B9 0-1'	590-20-7	SW8260B	11/11/2009	0	-1	1.28E-03	U	1.28E-03	5.00E-03				
B9 14-15'	590-20-7	SW8260B	11/11/2009	-14	-15	1.17E-03	U	1.17E-03	5.00E-03				

2,3,4,6-Tetrachlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	58-90-2	SW8270C	8/31/2009	0	-1	1.98E-01	U	1.98E-01	3.30E-01	3.07E+02	3.07E+04		
B1 0-1'	58-90-2	SW8270C	11/11/2009	0	-1	2.04E-01	U	2.04E-01	3.30E-01	3.07E+02	3.07E+04		
B1 14-15'	58-90-2	SW8270C	11/11/2009	-14	-15	1.84E-01	U	1.84E-01	3.30E-01	3.07E+02	3.07E+04		
B10-1	58-90-2	SW8270C	9/2/2009	-2	-3	2.36E-01	U	2.36E-01	3.30E-01	3.07E+02	3.07E+04		
B10-2	58-90-2	SW8270C	9/2/2009	-13	-14	2.01E-01	U	2.01E-01	3.30E-01	3.07E+02	3.07E+04		
B2 1-1.5	58-90-2	SW8270C	9/1/2009	-1	-1.5	1.87E-01	U	1.87E-01	3.30E-01	3.07E+02	3.07E+04		
B2 21-22.5	58-90-2	SW8270C	9/1/2009	-21	-22.5	2.21E-01	U	2.21E-01	3.30E-01	3.07E+02	3.07E+04		
B3 12-13	58-90-2	SW8270C	8/31/2009	-12	-13	1.78E-01	U	1.78E-01	3.30E-01	3.07E+02	3.07E+04		
B3 2-3	58-90-2	SW8270C	8/31/2009	-2	-3	2.08E-01	U	2.08E-01	3.30E-01	3.07E+02	3.07E+04		
B4 14-14.5	58-90-2	SW8270C	9/1/2009	-14	-14.5	2.00E-01	U	2.00E-01	3.30E-01	3.07E+02	3.07E+04		
B4 2-2.5	58-90-2	SW8270C	9/1/2009	-2	-2.5	2.16E-01	U	2.15E-01	3.30E-01	3.07E+02	3.07E+04		
B5-1	58-90-2	SW8270C	9/2/2009	-1	-1.5	2.12E-01	U	2.12E-01	3.30E-01	3.07E+02	3.07E+04		
B5-2	58-90-2	SW8270C	9/2/2009	-14.5	-15	2.02E-01	U	2.02E-01	3.30E-01	3.07E+02	3.07E+04		
B6-1	58-90-2	SW8270C	9/2/2009	-0.5	-1	1.96E-01	U	1.96E-01	3.30E-01	3.07E+02	3.07E+04		
B6-2	58-90-2	SW8270C	9/2/2009	-14.5	-15	2.02E-01	U	2.02E-01	3.30E-01	3.07E+02	3.07E+04		
B7 0-1'	58-90-2	SW8270C	11/11/2009	0	-1	1.89E-01	U	1.89E-01	3.30E-01	3.07E+02	3.07E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2,3,4,6-Tetrachlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 14-15'	58-90-2	SW8270C	11/11/2009	-14	-15	1.95E-01	U	1.95E-01	3.30E-01	3.07E+02	3.07E+04		
B8-1	58-90-2	SW8270C	9/2/2009	-1	-1.5	2.00E-01	U	2.00E-01	3.30E-01	3.07E+02	3.07E+04		
B8-2	58-90-2	SW8270C	9/2/2009	-14	-15	1.94E-01	U	1.94E-01	3.30E-01	3.07E+02	3.07E+04		
B9 0-1'	58-90-2	SW8270C	11/11/2009	0	-1	1.99E-01	U	1.99E-01	3.30E-01	3.07E+02	3.07E+04		
B9 14-15'	58-90-2	SW8270C	11/11/2009	-14	-15	1.94E-01	U	1.94E-01	3.30E-01	3.07E+02	3.07E+04		

2,4,5-Trichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	95-95-4	SW8270C	8/31/2009	0	-1	2.24E-02	U	2.24E-02	3.30E-01	1.02E+03	1.02E+05		
B1 0-1'	95-95-4	SW8270C	11/11/2009	0	-1	2.32E-02	U	2.32E-02	3.30E-01	1.02E+03	1.02E+05		
B1 14-15'	95-95-4	SW8270C	11/11/2009	-14	-15	2.09E-02	U	2.09E-02	3.30E-01	1.02E+03	1.02E+05		
B10-1	95-95-4	SW8270C	9/2/2009	-2	-3	2.68E-02	U	2.68E-02	3.30E-01	1.02E+03	1.02E+05		
B10-2	95-95-4	SW8270C	9/2/2009	-13	-14	2.28E-02	U	2.28E-02	3.30E-01	1.02E+03	1.02E+05		
B2 1-1.5	95-95-4	SW8270C	9/1/2009	-1	-1.5	2.12E-02	U	2.12E-02	3.30E-01	1.02E+03	1.02E+05		
B2 21-22.5	95-95-4	SW8270C	9/1/2009	-21	-22.5	2.51E-02	U	2.51E-02	3.30E-01	1.02E+03	1.02E+05		
B3 12-13	95-95-4	SW8270C	8/31/2009	-12	-13	2.02E-02	U	2.02E-02	3.30E-01	1.02E+03	1.02E+05		
B3 2-3	95-95-4	SW8270C	8/31/2009	-2	-3	2.36E-02	U	2.36E-02	3.30E-01	1.02E+03	1.02E+05		
B4 14-14.5	95-95-4	SW8270C	9/1/2009	-14	-14.5	2.27E-02	U	2.27E-02	3.30E-01	1.02E+03	1.02E+05		
B4 2-2.5	95-95-4	SW8270C	9/1/2009	-2	-2.5	2.45E-02	U	2.45E-02	3.30E-01	1.02E+03	1.02E+05		
B5-1	95-95-4	SW8270C	9/2/2009	-1	-1.5	2.41E-02	U	2.41E-02	3.30E-01	1.02E+03	1.02E+05		
B5-2	95-95-4	SW8270C	9/2/2009	-14.5	-15	2.29E-02	U	2.29E-02	3.30E-01	1.02E+03	1.02E+05		
B6-1	95-95-4	SW8270C	9/2/2009	-0.5	-1	2.22E-02	U	2.22E-02	3.30E-01	1.02E+03	1.02E+05		
B6-2	95-95-4	SW8270C	9/2/2009	-14.5	-15	2.29E-02	U	2.29E-02	3.30E-01	1.02E+03	1.02E+05		
B7 0-1'	95-95-4	SW8270C	11/11/2009	0	-1	2.14E-02	U	2.14E-02	3.30E-01	1.02E+03	1.02E+05		
B7 14-15'	95-95-4	SW8270C	11/11/2009	-14	-15	2.21E-02	U	2.21E-02	3.30E-01	1.02E+03	1.02E+05		
B8-1	95-95-4	SW8270C	9/2/2009	-1	-1.5	2.27E-02	U	2.27E-02	3.30E-01	1.02E+03	1.02E+05		
B8-2	95-95-4	SW8270C	9/2/2009	-14	-15	2.21E-02	U	2.21E-02	3.30E-01	1.02E+03	1.02E+05		
B9 0-1'	95-95-4	SW8270C	11/11/2009	0	-1	2.26E-02	U	2.26E-02	3.30E-01	1.02E+03	1.02E+05		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2,4,5-Trichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B9 14-15'	95-95-4	SW8270C	11/11/2009	-14	-15	2.20E-02	U	2.20E-02	3.30E-01	1.02E+03	1.02E+05		

2,4,6-Trichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	88-06-2	SW8270C	8/31/2009	0	-1	3.02E-02	U	3.02E-02	3.30E-01	2.60E+00	2.60E+02		
B1 0-1'	88-06-2	SW8270C	11/11/2009	0	-1	3.13E-02	U	3.13E-02	3.30E-01	2.60E+00	2.60E+02		
B1 14-15'	88-06-2	SW8270C	11/11/2009	-14	-15	2.81E-02	U	2.81E-02	3.30E-01	2.60E+00	2.60E+02		
B10-1	88-06-2	SW8270C	9/2/2009	-2	-3	3.61E-02	U	3.61E-02	3.30E-01	2.60E+00	2.60E+02		
B10-2	88-06-2	SW8270C	9/2/2009	-13	-14	3.07E-02	U	3.07E-02	3.30E-01	2.60E+00	2.60E+02		
B2 1-1.5	88-06-2	SW8270C	9/1/2009	-1	-1.5	2.86E-02	U	2.86E-02	3.30E-01	2.60E+00	2.60E+02		
B2 21-22.5	88-06-2	SW8270C	9/1/2009	-21	-22.5	3.38E-02	U	3.38E-02	3.30E-01	2.60E+00	2.60E+02		
B3 12-13	88-06-2	SW8270C	8/31/2009	-12	-13	2.72E-02	U	2.72E-02	3.30E-01	2.60E+00	2.60E+02		
B3 2-3	88-06-2	SW8270C	8/31/2009	-2	-3	3.18E-02	U	3.18E-02	3.30E-01	2.60E+00	2.60E+02		
B4 14-14.5	88-06-2	SW8270C	9/1/2009	-14	-14.5	3.05E-02	U	3.05E-02	3.30E-01	2.60E+00	2.60E+02		
B4 2-2.5	88-06-2	SW8270C	9/1/2009	-2	-2.5	3.30E-02	U	3.30E-02	3.30E-01	2.60E+00	2.60E+02		
B5-1	88-06-2	SW8270C	9/2/2009	-1	-1.5	3.24E-02	U	3.24E-02	3.30E-01	2.60E+00	2.60E+02		
B5-2	88-06-2	SW8270C	9/2/2009	-14.5	-15	3.09E-02	U	3.09E-02	3.30E-01	2.60E+00	2.60E+02		
B6-1	88-06-2	SW8270C	9/2/2009	-0.5	-1	3.00E-02	U	3.00E-02	3.30E-01	2.60E+00	2.60E+02		
B6-2	88-06-2	SW8270C	9/2/2009	-14.5	-15	3.09E-02	U	3.09E-02	3.30E-01	2.60E+00	2.60E+02		
B7 0-1'	88-06-2	SW8270C	11/11/2009	0	-1	2.89E-02	U	2.89E-02	3.30E-01	2.60E+00	2.60E+02		
B7 14-15'	88-06-2	SW8270C	11/11/2009	-14	-15	2.97E-02	U	2.97E-02	3.30E-01	2.60E+00	2.60E+02		
B8-1	88-06-2	SW8270C	9/2/2009	-1	-1.5	3.06E-02	U	3.06E-02	3.30E-01	2.60E+00	2.60E+02		
B8-2	88-06-2	SW8270C	9/2/2009	-14	-15	2.97E-02	U	2.97E-02	3.30E-01	2.60E+00	2.60E+02		
B9 0-1'	88-06-2	SW8270C	11/11/2009	0	-1	3.05E-02	U	3.05E-02	3.30E-01	2.60E+00	2.60E+02		
B9 14-15'	88-06-2	SW8270C	11/11/2009	-14	-15	2.96E-02	U	2.96E-02	3.30E-01	2.60E+00	2.60E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2,4,6-Trinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 1-2 FT	118-96-7	SW-846 8	8/31/2009	-1	-2	1.25E+00	U	1.25E+00	1.00E-01	5.11E+00	5.11E+02		
B1 13-14	118-96-7	SW-846 8	8/31/2009	-13	-14	1.25E+00	U	1.25E+00	1.00E-01	5.11E+00	5.11E+02		
B10 1 - 2	118-96-7	SW-846 8	9/2/2009	-1	-2	1.48E+00	U	1.48E+00	1.00E-01	5.11E+00	5.11E+02		
B10 11.5 - 1	118-96-7	SW-846 8	9/2/2009	-11.5	-12	1.54E+00	U	1.54E+00	1.00E-01	5.11E+00	5.11E+02		
B2 0.5-1.0	118-96-7	SW-846 8	9/1/2009	-0.5	-1	1.25E+00	U	1.25E+00	1.00E-01	5.11E+00	5.11E+02		
B2 21-21.5	118-96-7	SW-846 8	9/1/2009	-21	-21.5	1.25E+00	U	1.25E+00	1.00E-01	5.11E+00	5.11E+02		
B3 0-1	118-96-7	SW-846 8	8/31/2009	0	-1	1.25E+00	U	1.25E+00	1.00E-01	5.11E+00	5.11E+02		
B3 14-15	118-96-7	SW-846 8	8/31/2009	-14	-15	1.25E+00	U	1.25E+00	1.00E-01	5.11E+00	5.11E+02		
B4 13-14	118-96-7	SW-846 8	9/1/2009	-13	-14	1.25E+00	U	1.25E+00	1.00E-01	5.11E+00	5.11E+02		
B4 3-3.5	118-96-7	SW-846 8	9/1/2009	-3	-3.5	1.25E+00	U	1.25E+00	1.00E-01	5.11E+00	5.11E+02		
B5 14 - 14.	118-96-7	SW-846 8	9/2/2009	-14	-14.5	1.47E+00	U	1.47E+00	1.00E-01	5.11E+00	5.11E+02		
B5 0.5 - 1 M	118-96-7	SW-846 8	9/2/2009	-0.5	-1	1.53E+00	U	1.53E+00	1.00E-01	5.11E+00	5.11E+02		
B6 1 - 1.5	118-96-7	SW-846 8	9/2/2009	-1	-1.5	1.47E+00	U	1.47E+00	1.00E-01	5.11E+00	5.11E+02		
B6 14 - 14.5	118-96-7	SW-846 8	9/2/2009	-14	-14.5	1.44E+00	U	1.44E+00	1.00E-01	5.11E+00	5.11E+02		
B7 0-1 FT	118-96-7	SW-846 8	8/31/2009	0	-1	1.25E+00	U	1.25E+00	1.00E-01	5.11E+00	5.11E+02		
B7 14-15	118-96-7	SW-846 8	8/31/2009	-14	-15	1.25E+00	U	1.25E+00	1.00E-01	5.11E+00	5.11E+02		
B8 13 - 14	118-96-7	SW-846 8	9/2/2009	-13	-14	1.42E+00	U	1.42E+00	1.00E-01	5.11E+00	5.11E+02		
B8 2.75 - 3	118-96-7	SW-846 8	9/2/2009	-2.75	-3	1.57E+00	U	1.57E+00	1.00E-01	5.11E+00	5.11E+02		
B9 14-15	118-96-7	SW-846 8	8/31/2009	-14	-15	1.25E+00	U	1.25E+00	1.00E-01	5.11E+00	5.11E+02		
B9-0-2 FT	118-96-7	SW-846 8	8/31/2009	0	-2	1.25E+00	U	1.25E+00	1.00E-01	5.11E+00	5.11E+02		

2,4-Dichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	120-83-2	SW8270C	8/31/2009	0	-1	4.84E-02	U	4.84E-02	3.30E-01	3.07E+01	3.07E+03		
B1 0-1'	120-83-2	SW8270C	11/11/2009	0	-1	5.00E-02	U	5.00E-02	3.30E-01	3.07E+01	3.07E+03		
B1 14-15'	120-83-2	SW8270C	11/11/2009	-14	-15	4.50E-02	U	4.50E-02	3.30E-01	3.07E+01	3.07E+03		
B10-1	120-83-2	SW8270C	9/2/2009	-2	-3	5.77E-02	U	5.77E-02	3.30E-01	3.07E+01	3.07E+03		
B10-2	120-83-2	SW8270C	9/2/2009	-13	-14	4.91E-02	U	4.91E-02	3.30E-01	3.07E+01	3.07E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2,4-Dichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 1-1.5	120-83-2	SW8270C	9/1/2009	-1	-1.5	4.57E-02	U	4.57E-02	3.30E-01	3.07E+01	3.07E+03		
B2 21-22.5	120-83-2	SW8270C	9/1/2009	-21	-22.5	5.41E-02	U	5.41E-02	3.30E-01	3.07E+01	3.07E+03		
B3 12-13	120-83-2	SW8270C	8/31/2009	-12	-13	4.35E-02	U	4.35E-02	3.30E-01	3.07E+01	3.07E+03		
B3 2-3	120-83-2	SW8270C	8/31/2009	-2	-3	5.09E-02	U	5.09E-02	3.30E-01	3.07E+01	3.07E+03		
B4 14-14.5	120-83-2	SW8270C	9/1/2009	-14	-14.5	4.88E-02	U	4.88E-02	3.30E-01	3.07E+01	3.07E+03		
B4 2-2.5	120-83-2	SW8270C	9/1/2009	-2	-2.5	5.27E-02	U	5.27E-02	3.30E-01	3.07E+01	3.07E+03		
B5-1	120-83-2	SW8270C	9/2/2009	-1	-1.5	5.19E-02	U	5.19E-02	3.30E-01	3.07E+01	3.07E+03		
B5-2	120-83-2	SW8270C	9/2/2009	-14.5	-15	4.94E-02	U	4.94E-02	3.30E-01	3.07E+01	3.07E+03		
B6-1	120-83-2	SW8270C	9/2/2009	-0.5	-1	4.79E-02	U	4.79E-02	3.30E-01	3.07E+01	3.07E+03		
B6-2	120-83-2	SW8270C	9/2/2009	-14.5	-15	4.94E-02	U	4.94E-02	3.30E-01	3.07E+01	3.07E+03		
B7 0-1'	120-83-2	SW8270C	11/11/2009	0	-1	4.62E-02	U	4.62E-02	3.30E-01	3.07E+01	3.07E+03		
B7 14-15'	120-83-2	SW8270C	11/11/2009	-14	-15	4.76E-02	U	4.76E-02	3.30E-01	3.07E+01	3.07E+03		
B8-1	120-83-2	SW8270C	9/2/2009	-1	-1.5	4.89E-02	U	4.89E-02	3.30E-01	3.07E+01	3.07E+03		
B8-2	120-83-2	SW8270C	9/2/2009	-14	-15	4.75E-02	U	4.75E-02	3.30E-01	3.07E+01	3.07E+03		
B9 0-1'	120-83-2	SW8270C	11/11/2009	0	-1	4.88E-02	U	4.88E-02	3.30E-01	3.07E+01	3.07E+03		
B9 14-15'	120-83-2	SW8270C	11/11/2009	-14	-15	4.74E-02	U	4.74E-02	3.30E-01	3.07E+01	3.07E+03		

2,4-Dimethylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	105-67-9	SW8270C	8/31/2009	0	-1	3.13E-02	U	3.13E-02	3.30E-01	2.04E+02	2.04E+04		
B1 0-1'	105-67-9	SW8270C	11/11/2009	0	-1	3.23E-02	U	3.23E-02	3.30E-01	2.04E+02	2.04E+04		
B1 14-15'	105-67-9	SW8270C	11/11/2009	-14	-15	2.91E-02	U	2.91E-02	3.30E-01	2.04E+02	2.04E+04		
B10-1	105-67-9	SW8270C	9/2/2009	-2	-3	3.73E-02	U	3.73E-02	3.30E-01	2.04E+02	2.04E+04		
B10-2	105-67-9	SW8270C	9/2/2009	-13	-14	3.18E-02	U	3.18E-02	3.30E-01	2.04E+02	2.04E+04		
B2 1-1.5	105-67-9	SW8270C	9/1/2009	-1	-1.5	2.96E-02	U	2.96E-02	3.30E-01	2.04E+02	2.04E+04		
B2 21-22.5	105-67-9	SW8270C	9/1/2009	-21	-22.5	3.50E-02	U	3.50E-02	3.30E-01	2.04E+02	2.04E+04		
B3 12-13	105-67-9	SW8270C	8/31/2009	-12	-13	2.81E-02	U	2.81E-02	3.30E-01	2.04E+02	2.04E+04		
B3 2-3	105-67-9	SW8270C	8/31/2009	-2	-3	3.29E-02	U	3.29E-02	3.30E-01	2.04E+02	2.04E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2,4-Dimethylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 14-14.5	105-67-9	SW8270C	9/1/2009	-14	-14.5	3.16E-02	U	3.16E-02	3.30E-01	2.04E+02	2.04E+04		
B4 2-2.5	105-67-9	SW8270C	9/1/2009	-2	-2.5	3.41E-02	U	3.41E-02	3.30E-01	2.04E+02	2.04E+04		
B5-1	105-67-9	SW8270C	9/2/2009	-1	-1.5	3.35E-02	U	3.35E-02	3.30E-01	2.04E+02	2.04E+04		
B5-2	105-67-9	SW8270C	9/2/2009	-14.5	-15	3.19E-02	U	3.19E-02	3.30E-01	2.04E+02	2.04E+04		
B6-1	105-67-9	SW8270C	9/2/2009	-0.5	-1	3.10E-02	U	3.10E-02	3.30E-01	2.04E+02	2.04E+04		
B6-2	105-67-9	SW8270C	9/2/2009	-14.5	-15	3.19E-02	U	3.19E-02	3.30E-01	2.04E+02	2.04E+04		
B7 0-1'	105-67-9	SW8270C	11/11/2009	0	-1	2.99E-02	U	2.99E-02	3.30E-01	2.04E+02	2.04E+04		
B7 14-15'	105-67-9	SW8270C	11/11/2009	-14	-15	3.08E-02	U	3.08E-02	3.30E-01	2.04E+02	2.04E+04		
B8-1	105-67-9	SW8270C	9/2/2009	-1	-1.5	3.16E-02	U	3.16E-02	3.30E-01	2.04E+02	2.04E+04		
B8-2	105-67-9	SW8270C	9/2/2009	-14	-15	3.07E-02	U	3.07E-02	3.30E-01	2.04E+02	2.04E+04		
B9 0-1'	105-67-9	SW8270C	11/11/2009	0	-1	3.15E-02	U	3.15E-02	3.30E-01	2.04E+02	2.04E+04		
B9 14-15'	105-67-9	SW8270C	11/11/2009	-14	-15	3.06E-02	U	3.06E-02	3.30E-01	2.04E+02	2.04E+04		

2,4-Dinitrophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	51-28-5	SW8270C	8/31/2009	0	-1	1.28E-01	U	1.28E-01	3.30E-01	2.04E+01	2.04E+03		
B1 0-1'	51-28-5	SW8270C	11/11/2009	0	-1	1.32E-01	U	1.32E-01	3.30E-01	2.04E+01	2.04E+03		
B1 14-15'	51-28-5	SW8270C	11/11/2009	-14	-15	1.19E-01	U	1.19E-01	3.30E-01	2.04E+01	2.04E+03		
B10-1	51-28-5	SW8270C	9/2/2009	-2	-3	1.53E-01	U	1.53E-01	3.30E-01	2.04E+01	2.04E+03		
B10-2	51-28-5	SW8270C	9/2/2009	-13	-14	1.30E-01	U	1.30E-01	3.30E-01	2.04E+01	2.04E+03		
B2 1-1.5	51-28-5	SW8270C	9/1/2009	-1	-1.5	1.21E-01	U	1.21E-01	3.30E-01	2.04E+01	2.04E+03		
B2 21-22.5	51-28-5	SW8270C	9/1/2009	-21	-22.5	1.43E-01	U	1.43E-01	3.30E-01	2.04E+01	2.04E+03		
B3 12-13	51-28-5	SW8270C	8/31/2009	-12	-13	1.15E-01	U	1.15E-01	3.30E-01	2.04E+01	2.04E+03		
B3 2-3	51-28-5	SW8270C	8/31/2009	-2	-3	1.35E-01	U	1.34E-01	3.30E-01	2.04E+01	2.04E+03		
B4 14-14.5	51-28-5	SW8270C	9/1/2009	-14	-14.5	1.29E-01	U	1.29E-01	3.30E-01	2.04E+01	2.04E+03		
B4 2-2.5	51-28-5	SW8270C	9/1/2009	-2	-2.5	1.39E-01	U	1.39E-01	3.30E-01	2.04E+01	2.04E+03		
B5-1	51-28-5	SW8270C	9/2/2009	-1	-1.5	1.37E-01	U	1.37E-01	3.30E-01	2.04E+01	2.04E+03		
B5-2	51-28-5	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	2.04E+01	2.04E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2,4-Dinitrophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6-1	51-28-5	SW8270C	9/2/2009	-0.5	-1	1.27E-01	U	1.27E-01	3.30E-01	2.04E+01	2.04E+03		
B6-2	51-28-5	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	2.04E+01	2.04E+03		
B7 0-1'	51-28-5	SW8270C	11/11/2009	0	-1	1.22E-01	U	1.22E-01	3.30E-01	2.04E+01	2.04E+03		
B7 14-15'	51-28-5	SW8270C	11/11/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	2.04E+01	2.04E+03		
B8-1	51-28-5	SW8270C	9/2/2009	-1	-1.5	1.29E-01	U	1.29E-01	3.30E-01	2.04E+01	2.04E+03		
B8-2	51-28-5	SW8270C	9/2/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	2.04E+01	2.04E+03		
B9 0-1'	51-28-5	SW8270C	11/11/2009	0	-1	1.29E-01	U	1.29E-01	3.30E-01	2.04E+01	2.04E+03		
B9 14-15'	51-28-5	SW8270C	11/11/2009	-14	-15	1.25E-01	U	1.25E-01	3.30E-01	2.04E+01	2.04E+03		

2,4-Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	121-14-2	SW8270C	8/31/2009	0	-1	2.35E-02	U	2.35E-02	3.30E-01	4.21E-02	4.21E+00		
B1 0-1	121-14-2	SW8270C	8/31/2009	0	-1	1.47E-02	U	1.47E-02	3.33E-02	4.21E-02	4.21E+00		
B1 0-1'	121-14-2	SW8270C	11/11/2009	0	-1	1.51E-02	U	1.51E-02	3.30E-02	4.21E-02	4.21E+00		
B1 1-2 FT	121-14-2	SW-846 8	8/31/2009	-1	-2	8.93E-01	U	8.93E-01	1.00E-01	4.21E-02	4.21E+00		
B1 13-14	121-14-2	SW-846 8	8/31/2009	-13	-14	8.93E-01	U	8.93E-01	1.00E-01	4.21E-02	4.21E+00		
B1 14-15'	121-14-2	SW8270C	11/11/2009	-14	-15	1.36E-02	U	1.36E-02	3.30E-02	4.21E-02	4.21E+00		
B10 1 - 2	121-14-2	SW-846 8	9/2/2009	-1	-2	1.06E+00	U	1.06E+00	1.00E-01	4.21E-02	4.21E+00		
B10 11.5 - 1	121-14-2	SW-846 8	9/2/2009	-11.5	-12	1.10E+00	U	1.10E+00	1.00E-01	4.21E-02	4.21E+00		
B10-1	121-14-2	SW8270C	9/2/2009	-2	-3	1.75E-02	U	1.75E-02	3.33E-02	4.21E-02	4.21E+00		
B10-1	121-14-2	SW8270C	9/2/2009	-2	-3	2.80E-02	U	2.80E-02	3.30E-01	4.21E-02	4.21E+00		
B10-2	121-14-2	SW8270C	9/2/2009	-13	-14	2.38E-02	U	2.38E-02	3.30E-01	4.21E-02	4.21E+00		
B10-2	121-14-2	SW8270C	9/2/2009	-13	-14	1.49E-02	U	1.49E-02	3.33E-02	4.21E-02	4.21E+00		
B2 0.5-1.0	121-14-2	SW-846 8	9/1/2009	-0.5	-1	8.93E-01	U	8.93E-01	1.00E-01	4.21E-02	4.21E+00		
B2 1-1.5	121-14-2	SW8270C	9/1/2009	-1	-1.5	2.22E-02	U	2.22E-02	3.30E-01	4.21E-02	4.21E+00		
B2 1-1.5	121-14-2	SW8270C	9/1/2009	-1	-1.5	1.38E-02	U	1.38E-02	3.33E-02	4.21E-02	4.21E+00		
B2 21-21.5	121-14-2	SW-846 8	9/1/2009	-21	-21.5	8.93E-01	U	8.93E-01	1.00E-01	4.21E-02	4.21E+00		
B2 21-22.5	121-14-2	SW8270C	9/1/2009	-21	-22.5	2.63E-02	U	2.63E-02	3.30E-01	4.21E-02	4.21E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2,4-Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 21-22.5	121-14-2	SW8270C	9/1/2009	-21	-22.5	1.64E-02	U	1.64E-02	3.33E-02	4.21E-02	4.21E+00		
B3 0-1	121-14-2	SW-846 8	8/31/2009	0	-1	8.93E-01	U	8.93E-01	1.00E-01	4.21E-02	4.21E+00		
B3 12-13	121-14-2	SW8270C	8/31/2009	-12	-13	2.11E-02	U	2.11E-02	3.30E-01	4.21E-02	4.21E+00		
B3 12-13	121-14-2	SW8270C	8/31/2009	-12	-13	1.32E-02	U	1.32E-02	3.33E-02	4.21E-02	4.21E+00		
B3 14-15	121-14-2	SW-846 8	8/31/2009	-14	-15	8.93E-01	U	8.93E-01	1.00E-01	4.21E-02	4.21E+00		
B3 2-3	121-14-2	SW8270C	8/31/2009	-2	-3	1.54E-02	U	1.54E-02	3.33E-02	4.21E-02	4.21E+00		
B3 2-3	121-14-2	SW8270C	8/31/2009	-2	-3	2.47E-02	U	2.47E-02	3.30E-01	4.21E-02	4.21E+00		
B4 13-14	121-14-2	SW-846 8	9/1/2009	-13	-14	8.93E-01	U	8.93E-01	1.00E-01	4.21E-02	4.21E+00		
B4 14-14.5	121-14-2	SW8270C	9/1/2009	-14	-14.5	2.37E-02	U	2.37E-02	3.30E-01	4.21E-02	4.21E+00		
B4 14-14.5	121-14-2	SW8270C	9/1/2009	-14	-14.5	1.48E-02	U	1.48E-02	3.33E-02	4.21E-02	4.21E+00		
B4 2-2.5	121-14-2	SW8270C	9/1/2009	-2	-2.5	1.60E-02	U	1.60E-02	3.33E-02	4.21E-02	4.21E+00		
B4 2-2.5	121-14-2	SW8270C	9/1/2009	-2	-2.5	2.56E-02	U	2.56E-02	3.30E-01	4.21E-02	4.21E+00		
B4 3-3.5	121-14-2	SW-846 8	9/1/2009	-3	-3.5	8.93E-01	U	8.93E-01	1.00E-01	4.21E-02	4.21E+00		
B5 14 - 14.	121-14-2	SW-846 8	9/2/2009	-14	-14.5	1.05E+00	U	1.05E+00	1.00E-01	4.21E-02	4.21E+00		
B5 0.5 - 1 M	121-14-2	SW-846 8	9/2/2009	-0.5	-1	1.09E+00	U	1.09E+00	1.00E-01	4.21E-02	4.21E+00		
B5-1	121-14-2	SW8270C	9/2/2009	-1	-1.5	2.52E-02	U	2.52E-02	3.30E-01	4.21E-02	4.21E+00		
B5-1	121-14-2	SW8270C	9/2/2009	-1	-1.5	1.57E-02	U	1.57E-02	3.33E-02	4.21E-02	4.21E+00		
B5-2	121-14-2	SW8270C	9/2/2009	-14.5	-15	2.40E-02	U	2.40E-02	3.30E-01	4.21E-02	4.21E+00		
B5-2	121-14-2	SW8270C	9/2/2009	-14.5	-15	1.50E-02	U	1.50E-02	3.33E-02	4.21E-02	4.21E+00		
B6 1 - 1.5	121-14-2	SW-846 8	9/2/2009	-1	-1.5	1.05E+00	U	1.05E+00	1.00E-01	4.21E-02	4.21E+00		
B6 14 - 14.5	121-14-2	SW-846 8	9/2/2009	-14	-14.5	1.03E+00	U	1.03E+00	1.00E-01	4.21E-02	4.21E+00		
B6-1	121-14-2	SW8270C	9/2/2009	-0.5	-1	2.33E-02	U	2.33E-02	3.30E-01	4.21E-02	4.21E+00		
B6-1	121-14-2	SW8270C	9/2/2009	-0.5	-1	1.45E-02	U	1.45E-02	3.33E-02	4.21E-02	4.21E+00		
B6-2	121-14-2	SW8270C	9/2/2009	-14.5	-15	2.40E-02	U	2.40E-02	3.30E-01	4.21E-02	4.21E+00		
B6-2	121-14-2	SW8270C	9/2/2009	-14.5	-15	1.50E-02	U	1.50E-02	3.33E-02	4.21E-02	4.21E+00		
B7 0-1'	121-14-2	SW8270C	11/11/2009	0	-1	1.40E-02	U	1.40E-02	3.30E-02	4.21E-02	4.21E+00		
B7 0-1 FT	121-14-2	SW-846 8	8/31/2009	0	-1	8.93E-01	U	8.93E-01	1.00E-01	4.21E-02	4.21E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2,4-Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 14-15	121-14-2	SW-846 8	8/31/2009	-14	-15	8.93E-01	U	8.93E-01	1.00E-01	4.21E-02	4.21E+00		
B7 14-15'	121-14-2	SW8270C	11/11/2009	-14	-15	1.44E-02	U	1.44E-02	3.30E-02	4.21E-02	4.21E+00		
B8 13 - 14	121-14-2	SW-846 8	9/2/2009	-13	-14	1.01E+00	U	1.01E+00	1.00E-01	4.21E-02	4.21E+00		
B8 2.75 - 3	121-14-2	SW-846 8	9/2/2009	-2.75	-3	1.12E+00	U	1.12E+00	1.00E-01	4.21E-02	4.21E+00		
B8-1	121-14-2	SW8270C	9/2/2009	-1	-1.5	2.37E-02	U	2.37E-02	3.30E-01	4.21E-02	4.21E+00		
B8-1	121-14-2	SW8270C	9/2/2009	-1	-1.5	1.48E-02	U	1.48E-02	3.33E-02	4.21E-02	4.21E+00		
B8-2	121-14-2	SW8270C	9/2/2009	-14	-15	2.31E-02	U	2.31E-02	3.30E-01	4.21E-02	4.21E+00		
B8-2	121-14-2	SW8270C	9/2/2009	-14	-15	1.44E-02	U	1.44E-02	3.33E-02	4.21E-02	4.21E+00		
B9 0-1'	121-14-2	SW8270C	11/11/2009	0	-1	1.48E-02	U	1.48E-02	3.30E-02	4.21E-02	4.21E+00		
B9 14-15	121-14-2	SW-846 8	8/31/2009	-14	-15	8.93E-01	U	8.93E-01	1.00E-01	4.21E-02	4.21E+00		
B9 14-15'	121-14-2	SW8270C	11/11/2009	-14	-15	1.44E-02	U	1.44E-02	3.30E-02	4.21E-02	4.21E+00		
B9-0-2 FT	121-14-2	SW-846 8	8/31/2009	0	-2	8.93E-01	U	8.93E-01	1.00E-01	4.21E-02	4.21E+00		

2,6 Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 1-2 FT	606-20-2	SW-846 8	8/31/2009	-1	-2	1.07E+00	U	1.07E+00	1.00E-01	4.21E-02	4.21E+00		
B1 13-14	606-20-2	SW-846 8	8/31/2009	-13	-14	1.07E+00	U	1.07E+00	1.00E-01	4.21E-02	4.21E+00		
B10 1 - 2	606-20-2	SW-846 8	9/2/2009	-1	-2	1.27E+00	U	1.27E+00	1.00E-01	4.21E-02	4.21E+00		
B10 11.5 - 1	606-20-2	SW-846 8	9/2/2009	-11.5	-12	1.31E+00	U	1.31E+00	1.00E-01	4.21E-02	4.21E+00		
B2 0.5-1.0	606-20-2	SW-846 8	9/1/2009	-0.5	-1	1.07E+00	U	1.07E+00	1.00E-01	4.21E-02	4.21E+00		
B2 21-21.5	606-20-2	SW-846 8	9/1/2009	-21	-21.5	1.07E+00	U	1.07E+00	1.00E-01	4.21E-02	4.21E+00		
B3 0-1	606-20-2	SW-846 8	8/31/2009	0	-1	1.07E+00	U	1.07E+00	1.00E-01	4.21E-02	4.21E+00		
B3 14-15	606-20-2	SW-846 8	8/31/2009	-14	-15	1.07E+00	U	1.07E+00	1.00E-01	4.21E-02	4.21E+00		
B4 13-14	606-20-2	SW-846 8	9/1/2009	-13	-14	1.07E+00	U	1.07E+00	1.00E-01	4.21E-02	4.21E+00		
B4 3-3.5	606-20-2	SW-846 8	9/1/2009	-3	-3.5	1.07E+00	U	1.07E+00	1.00E-01	4.21E-02	4.21E+00		
B5 14 - 14.	606-20-2	SW-846 8	9/2/2009	-14	-14.5	1.25E+00	U	1.25E+00	1.00E-01	4.21E-02	4.21E+00		
B5 0.5 - 1 M	606-20-2	SW-846 8	9/2/2009	-0.5	-1	1.31E+00	U	1.31E+00	1.00E-01	4.21E-02	4.21E+00		
B6 1 - 1.5	606-20-2	SW-846 8	9/2/2009	-1	-1.5	1.26E+00	U	1.26E+00	1.00E-01	4.21E-02	4.21E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2,6 Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6 14 - 14.5	606-20-2	SW-846 8	9/2/2009	-14	-14.5	1.23E+00	U	1.23E+00	1.00E-01	4.21E-02	4.21E+00		
B7 0-1 FT	606-20-2	SW-846 8	8/31/2009	0	-1	1.07E+00	U	1.07E+00	1.00E-01	4.21E-02	4.21E+00		
B7 14-15	606-20-2	SW-846 8	8/31/2009	-14	-15	1.07E+00	U	1.07E+00	1.00E-01	4.21E-02	4.21E+00		
B8 13 - 14	606-20-2	SW-846 8	9/2/2009	-13	-14	1.21E+00	U	1.21E+00	1.00E-01	4.21E-02	4.21E+00		
B8 2.75 - 3	606-20-2	SW-846 8	9/2/2009	-2.75	-3	1.34E+00	U	1.34E+00	1.00E-01	4.21E-02	4.21E+00		
B9 14-15	606-20-2	SW-846 8	8/31/2009	-14	-15	1.07E+00	U	1.07E+00	1.00E-01	4.21E-02	4.21E+00		
B9-0-2 FT	606-20-2	SW-846 8	8/31/2009	0	-2	1.07E+00	U	1.07E+00	1.00E-01	4.21E-02	4.21E+00		

2,6-Dichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	87-65-0	SW8270C	8/31/2009	0	-1	4.84E-02	U	4.84E-02	3.30E-01	1.02E+01	1.02E+03		
B1 0-1'	87-65-0	SW8270C	11/11/2009	0	-1	5.00E-02	U	5.00E-02	3.30E-01	1.02E+01	1.02E+03		
B1 14-15'	87-65-0	SW8270C	11/11/2009	-14	-15	4.50E-02	U	4.50E-02	3.30E-01	1.02E+01	1.02E+03		
B10-1	87-65-0	SW8270C	9/2/2009	-2	-3	5.77E-02	U	5.77E-02	3.30E-01	1.02E+01	1.02E+03		
B10-2	87-65-0	SW8270C	9/2/2009	-13	-14	4.91E-02	U	4.91E-02	3.30E-01	1.02E+01	1.02E+03		
B2 1-1.5	87-65-0	SW8270C	9/1/2009	-1	-1.5	4.57E-02	U	4.57E-02	3.30E-01	1.02E+01	1.02E+03		
B2 21-22.5	87-65-0	SW8270C	9/1/2009	-21	-22.5	5.41E-02	U	5.41E-02	3.30E-01	1.02E+01	1.02E+03		
B3 12-13	87-65-0	SW8270C	8/31/2009	-12	-13	4.35E-02	U	4.35E-02	3.30E-01	1.02E+01	1.02E+03		
B3 2-3	87-65-0	SW8270C	8/31/2009	-2	-3	5.09E-02	U	5.09E-02	3.30E-01	1.02E+01	1.02E+03		
B4 14-14.5	87-65-0	SW8270C	9/1/2009	-14	-14.5	4.88E-02	U	4.88E-02	3.30E-01	1.02E+01	1.02E+03		
B4 2-2.5	87-65-0	SW8270C	9/1/2009	-2	-2.5	5.27E-02	U	5.27E-02	3.30E-01	1.02E+01	1.02E+03		
B5-1	87-65-0	SW8270C	9/2/2009	-1	-1.5	5.19E-02	U	5.19E-02	3.30E-01	1.02E+01	1.02E+03		
B5-2	87-65-0	SW8270C	9/2/2009	-14.5	-15	4.94E-02	U	4.94E-02	3.30E-01	1.02E+01	1.02E+03		
B6-1	87-65-0	SW8270C	9/2/2009	-0.5	-1	4.79E-02	U	4.79E-02	3.30E-01	1.02E+01	1.02E+03		
B6-2	87-65-0	SW8270C	9/2/2009	-14.5	-15	4.94E-02	U	4.94E-02	3.30E-01	1.02E+01	1.02E+03		
B7 0-1'	87-65-0	SW8270C	11/11/2009	0	-1	4.62E-02	U	4.62E-02	3.30E-01	1.02E+01	1.02E+03		
B7 14-15'	87-65-0	SW8270C	11/11/2009	-14	-15	4.76E-02	U	4.76E-02	3.30E-01	1.02E+01	1.02E+03		
B8-1	87-65-0	SW8270C	9/2/2009	-1	-1.5	4.89E-02	U	4.89E-02	3.30E-01	1.02E+01	1.02E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2,6-Dichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8-2	87-65-0	SW8270C	9/2/2009	-14	-15	4.75E-02	U	4.75E-02	3.30E-01	1.02E+01	1.02E+03		
B9 0-1'	87-65-0	SW8270C	11/11/2009	0	-1	4.88E-02	U	4.88E-02	3.30E-01	1.02E+01	1.02E+03		
B9 14-15'	87-65-0	SW8270C	11/11/2009	-14	-15	4.74E-02	U	4.74E-02	3.30E-01	1.02E+01	1.02E+03		

2,6-Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	606-20-2	SW8270C	8/31/2009	0	-1	3.21E-02	U	3.21E-02	3.30E-01	4.21E-02	4.21E+00		
B1 0-1	606-20-2	SW8270C	8/31/2009	0	-1	1.30E-02	U	1.30E-02	3.33E-02	4.21E-02	4.21E+00		
B1 0-1'	606-20-2	SW8270C	11/11/2009	0	-1	3.32E-02	U	3.32E-02	3.30E-01	4.21E-02	4.21E+00		
B1 14-15'	606-20-2	SW8270C	11/11/2009	-14	-15	2.99E-02	U	2.99E-02	3.30E-01	4.21E-02	4.21E+00		
B10-1	606-20-2	SW8270C	9/2/2009	-2	-3	3.83E-02	U	3.83E-02	3.30E-01	4.21E-02	4.21E+00		
B10-1	606-20-2	SW8270C	9/2/2009	-2	-3	1.55E-02	U	1.55E-02	3.33E-02	4.21E-02	4.21E+00		
B10-2	606-20-2	SW8270C	9/2/2009	-13	-14	3.26E-02	U	3.26E-02	3.30E-01	4.21E-02	4.21E+00		
B10-2	606-20-2	SW8270C	9/2/2009	-13	-14	1.32E-02	U	1.32E-02	3.33E-02	4.21E-02	4.21E+00		
B2 1-1.5	606-20-2	SW8270C	9/1/2009	-1	-1.5	3.03E-02	U	3.03E-02	3.30E-01	4.21E-02	4.21E+00		
B2 1-1.5	606-20-2	SW8270C	9/1/2009	-1	-1.5	1.23E-02	U	1.23E-02	3.33E-02	4.21E-02	4.21E+00		
B2 21-22.5	606-20-2	SW8270C	9/1/2009	-21	-22.5	3.59E-02	U	3.59E-02	3.30E-01	4.21E-02	4.21E+00		
B2 21-22.5	606-20-2	SW8270C	9/1/2009	-21	-22.5	1.46E-02	U	1.46E-02	3.33E-02	4.21E-02	4.21E+00		
B3 12-13	606-20-2	SW8270C	8/31/2009	-12	-13	1.17E-02	U	1.17E-02	3.33E-02	4.21E-02	4.21E+00		
B3 12-13	606-20-2	SW8270C	8/31/2009	-12	-13	2.89E-02	U	2.89E-02	3.30E-01	4.21E-02	4.21E+00		
B3 2-3	606-20-2	SW8270C	8/31/2009	-2	-3	3.37E-02	U	3.37E-02	3.30E-01	4.21E-02	4.21E+00		
B3 2-3	606-20-2	SW8270C	8/31/2009	-2	-3	1.37E-02	U	1.37E-02	3.33E-02	4.21E-02	4.21E+00		
B4 14-14.5	606-20-2	SW8270C	9/1/2009	-14	-14.5	3.24E-02	U	3.24E-02	3.30E-01	4.21E-02	4.21E+00		
B4 14-14.5	606-20-2	SW8270C	9/1/2009	-14	-14.5	1.31E-02	U	1.31E-02	3.33E-02	4.21E-02	4.21E+00		
B4 2-2.5	606-20-2	SW8270C	9/1/2009	-2	-2.5	1.42E-02	U	1.42E-02	3.33E-02	4.21E-02	4.21E+00		
B4 2-2.5	606-20-2	SW8270C	9/1/2009	-2	-2.5	3.50E-02	U	3.50E-02	3.30E-01	4.21E-02	4.21E+00		
B5-1	606-20-2	SW8270C	9/2/2009	-1	-1.5	3.44E-02	U	3.44E-02	3.30E-01	4.21E-02	4.21E+00		
B5-1	606-20-2	SW8270C	9/2/2009	-1	-1.5	1.40E-02	U	1.40E-02	3.33E-02	4.21E-02	4.21E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2,6-Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B5-2	606-20-2	SW8270C	9/2/2009	-14.5	-15	1.33E-02	U	1.33E-02	3.33E-02	4.21E-02	4.21E+00		
B5-2	606-20-2	SW8270C	9/2/2009	-14.5	-15	3.28E-02	U	3.28E-02	3.30E-01	4.21E-02	4.21E+00		
B6-1	606-20-2	SW8270C	9/2/2009	-0.5	-1	1.29E-02	U	1.29E-02	3.33E-02	4.21E-02	4.21E+00		
B6-1	606-20-2	SW8270C	9/2/2009	-0.5	-1	3.18E-02	U	3.18E-02	3.30E-01	4.21E-02	4.21E+00		
B6-2	606-20-2	SW8270C	9/2/2009	-14.5	-15	3.28E-02	U	3.28E-02	3.30E-01	4.21E-02	4.21E+00		
B6-2	606-20-2	SW8270C	9/2/2009	-14.5	-15	1.33E-02	U	1.33E-02	3.33E-02	4.21E-02	4.21E+00		
B7 0-1'	606-20-2	SW8270C	11/11/2009	0	-1	3.06E-02	U	3.06E-02	3.30E-01	4.21E-02	4.21E+00		
B7 14-15'	606-20-2	SW8270C	11/11/2009	-14	-15	3.16E-02	U	3.16E-02	3.30E-01	4.21E-02	4.21E+00		
B8-1	606-20-2	SW8270C	9/2/2009	-1	-1.5	3.24E-02	U	3.24E-02	3.30E-01	4.21E-02	4.21E+00		
B8-1	606-20-2	SW8270C	9/2/2009	-1	-1.5	1.32E-02	U	1.32E-02	3.33E-02	4.21E-02	4.21E+00		
B8-2	606-20-2	SW8270C	9/2/2009	-14	-15	3.15E-02	U	3.15E-02	3.30E-01	4.21E-02	4.21E+00		
B8-2	606-20-2	SW8270C	9/2/2009	-14	-15	1.28E-02	U	1.28E-02	3.33E-02	4.21E-02	4.21E+00		
B9 0-1'	606-20-2	SW8270C	11/11/2009	0	-1	3.24E-02	U	3.24E-02	3.30E-01	4.21E-02	4.21E+00		
B9 14-15'	606-20-2	SW8270C	11/11/2009	-14	-15	3.14E-02	U	3.14E-02	3.30E-01	4.21E-02	4.21E+00		

2-Amino-4,6-dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 1-2 FT	35572-78-	SW-846 8	8/31/2009	-1	-2	8.12E-01	U	8.12E-01	1.00E-01	1.70E+00	1.70E+02		
B1 13-14	35572-78-	SW-846 8	8/31/2009	-13	-14	8.12E-01	U	8.12E-01	1.00E-01	1.70E+00	1.70E+02		
B10 1 - 2	35572-78-	SW-846 8	9/2/2009	-1	-2	9.64E-01	U	9.64E-01	1.00E-01	1.70E+00	1.70E+02		
B10 11.5 - 1	35572-78-	SW-846 8	9/2/2009	-11.5	-12	9.98E-01	U	9.98E-01	1.00E-01	1.70E+00	1.70E+02		
B2 0.5-1.0	35572-78-	SW-846 8	9/1/2009	-0.5	-1	8.12E-01	U	8.12E-01	1.00E-01	1.70E+00	1.70E+02		
B2 21-21.5	35572-78-	SW-846 8	9/1/2009	-21	-21.5	8.12E-01	U	8.12E-01	1.00E-01	1.70E+00	1.70E+02		
B3 0-1	35572-78-	SW-846 8	8/31/2009	0	-1	8.12E-01	U	8.12E-01	1.00E-01	1.70E+00	1.70E+02		
B3 14-15	35572-78-	SW-846 8	8/31/2009	-14	-15	8.12E-01	U	8.12E-01	1.00E-01	1.70E+00	1.70E+02		
B4 13-14	35572-78-	SW-846 8	9/1/2009	-13	-14	8.12E-01	U	8.12E-01	1.00E-01	1.70E+00	1.70E+02		
B4 3-3.5	35572-78-	SW-846 8	9/1/2009	-3	-3.5	8.12E-01	U	8.12E-01	1.00E-01	1.70E+00	1.70E+02		
B5 14 - 14.	35572-78-	SW-846 8	9/2/2009	-14	-14.5	9.52E-01	U	9.52E-01	1.00E-01	1.70E+00	1.70E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2-Amino-4,6-dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B5 0.5 - 1 M	35572-78-	SW-846 8	9/2/2009	-0.5	-1	9.91E-01	U	9.91E-01	1.00E-01	1.70E+00	1.70E+02		
B6 1 - 1.5	35572-78-	SW-846 8	9/2/2009	-1	-1.5	9.55E-01	U	9.55E-01	1.00E-01	1.70E+00	1.70E+02		
B6 14 - 14.5	35572-78-	SW-846 8	9/2/2009	-14	-14.5	9.34E-01	U	9.34E-01	1.00E-01	1.70E+00	1.70E+02		
B7 0-1 FT	35572-78-	SW-846 8	8/31/2009	0	-1	8.12E-01	U	8.12E-01	1.00E-01	1.70E+00	1.70E+02		
B7 14-15	35572-78-	SW-846 8	8/31/2009	-14	-15	8.12E-01	U	8.12E-01	1.00E-01	1.70E+00	1.70E+02		
B8 13 - 14	35572-78-	SW-846 8	9/2/2009	-13	-14	9.22E-01	U	9.22E-01	1.00E-01	1.70E+00	1.70E+02		
B8 2.75 - 3	35572-78-	SW-846 8	9/2/2009	-2.75	-3	1.02E+00	U	1.02E+00	1.00E-01	1.70E+00	1.70E+02		
B9 14-15	35572-78-	SW-846 8	8/31/2009	-14	-15	8.12E-01	U	8.12E-01	1.00E-01	1.70E+00	1.70E+02		
B9-0-2 FT	35572-78-	SW-846 8	8/31/2009	0	-2	8.12E-01	U	8.12E-01	1.00E-01	1.70E+00	1.70E+02		

2-Butanone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	78-93-3	SW8260B	8/31/2009	0	-1	4.91E-04	U	4.91E-04	1.00E-02	6.13E+03	4.19E+04		
B1 0-1'	78-93-3	SW8260B	11/11/2009	0	-1	7.32E-04	U	7.32E-04	1.00E-02	6.13E+03	4.19E+04		
B1 14-15'	78-93-3	SW8260B	11/11/2009	-14	-15	5.34E-04	U	5.34E-04	1.00E-02	6.13E+03	4.19E+04		
B10-1	78-93-3	SW8260B	9/2/2009	-2	-3	5.85E-04	U	5.85E-04	1.00E-02	6.13E+03	4.19E+04		
B10-2	78-93-3	SW8260B	9/2/2009	-13	-14	4.98E-04	U	4.98E-04	1.00E-02	6.13E+03	4.19E+04		
B2 1-1.5	78-93-3	SW8260B	9/1/2009	-1	-1.5	4.64E-04	U	4.64E-04	1.00E-02	6.13E+03	4.19E+04		
B2 21-22.5	78-93-3	SW8260B	9/1/2009	-21	-22.5	5.49E-04	U	5.49E-04	1.00E-02	6.13E+03	4.19E+04		
B3 12-13	78-93-3	SW8260B	8/31/2009	-12	-13	4.41E-04	U	4.41E-04	1.00E-02	6.13E+03	4.19E+04		
B3 2-3	78-93-3	SW8260B	8/31/2009	-2	-3	5.16E-04	U	5.16E-04	1.00E-02	6.13E+03	4.19E+04		
B4 14.5-15	78-93-3	SW8260B	9/1/2009	-14.5	-15	5.01E-04	U	5.01E-04	1.00E-02	6.13E+03	4.19E+04		
B4 2-2.5	78-93-3	SW8260B	9/1/2009	-2	-2.5	5.35E-04	U	5.35E-04	1.00E-02	6.13E+03	4.19E+04		
B5-1	78-93-3	SW8260B	9/2/2009	-1	-1.5	5.26E-04	U	5.26E-04	1.00E-02	6.13E+03	4.19E+04		
B5-2	78-93-3	SW8260B	9/2/2009	-14.5	-15	5.01E-04	U	5.01E-04	1.00E-02	6.13E+03	4.19E+04		
B6-1	78-93-3	SW8260B	9/2/2009	-0.5	-1	4.86E-04	U	4.86E-04	1.00E-02	6.13E+03	4.19E+04		
B6-2	78-93-3	SW8260B	9/2/2009	-14.5	-15	5.01E-04	U	5.01E-04	1.00E-02	6.13E+03	4.19E+04		
B7 0-1'	78-93-3	SW8260B	11/11/2009	0	-1	5.77E-04	U	5.77E-04	1.00E-02	6.13E+03	4.19E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2-Butanone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 14-15'	78-93-3	SW8260B	11/11/2009	-14	-15	6.33E-04	U	6.33E-04	1.00E-02	6.13E+03	4.19E+04		
B8-1	78-93-3	SW8260B	9/2/2009	-1	-1.5	4.96E-04	U	4.96E-04	1.00E-02	6.13E+03	4.19E+04		
B8-2	78-93-3	SW8260B	9/2/2009	-14	-15	4.82E-04	U	4.82E-04	1.00E-02	6.13E+03	4.19E+04		
B8-3	78-93-3	SW8260B	9/2/2009	-8	-8.5	5.23E-04	U	5.23E-04	1.00E-02	6.13E+03	4.19E+04		
B9 0-1'	78-93-3	SW8260B	11/11/2009	0	-1	6.80E-04	U	6.80E-04	1.00E-02	6.13E+03	4.19E+04		
B9 14-15'	78-93-3	SW8260B	11/11/2009	-14	-15	6.24E-04	U	6.24E-04	1.00E-02	6.13E+03	4.19E+04		

2-Chloronaphthalene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	91-58-7	SW8270C	8/31/2009	0	-1	3.88E-02	U	3.88E-02	3.30E-01	8.18E+02	7.11E+04		
B1 0-1'	91-58-7	SW8270C	11/11/2009	0	-1	4.01E-02	U	4.01E-02	3.30E-01	8.18E+02	7.11E+04		
B1 14-15'	91-58-7	SW8270C	11/11/2009	-14	-15	3.61E-02	U	3.61E-02	3.30E-01	8.18E+02	7.11E+04		
B10-1	91-58-7	SW8270C	9/2/2009	-2	-3	4.63E-02	U	4.63E-02	3.30E-01	8.18E+02	7.11E+04		
B10-2	91-58-7	SW8270C	9/2/2009	-13	-14	3.94E-02	U	3.94E-02	3.30E-01	8.18E+02	7.11E+04		
B2 1-1.5	91-58-7	SW8270C	9/1/2009	-1	-1.5	3.67E-02	U	3.67E-02	3.30E-01	8.18E+02	7.11E+04		
B2 21-22.5	91-58-7	SW8270C	9/1/2009	-21	-22.5	4.34E-02	U	4.34E-02	3.30E-01	8.18E+02	7.11E+04		
B3 12-13	91-58-7	SW8270C	8/31/2009	-12	-13	3.49E-02	U	3.49E-02	3.30E-01	8.18E+02	7.11E+04		
B3 2-3	91-58-7	SW8270C	8/31/2009	-2	-3	4.08E-02	U	4.08E-02	3.30E-01	8.18E+02	7.11E+04		
B4 14-14.5	91-58-7	SW8270C	9/1/2009	-14	-14.5	3.92E-02	U	3.92E-02	3.30E-01	8.18E+02	7.11E+04		
B4 2-2.5	91-58-7	SW8270C	9/1/2009	-2	-2.5	4.23E-02	U	4.23E-02	3.30E-01	8.18E+02	7.11E+04		
B5-1	91-58-7	SW8270C	9/2/2009	-1	-1.5	4.16E-02	U	4.16E-02	3.30E-01	8.18E+02	7.11E+04		
B5-2	91-58-7	SW8270C	9/2/2009	-14.5	-15	3.97E-02	U	3.97E-02	3.30E-01	8.18E+02	7.11E+04		
B6-1	91-58-7	SW8270C	9/2/2009	-0.5	-1	3.85E-02	U	3.85E-02	3.30E-01	8.18E+02	7.11E+04		
B6-2	91-58-7	SW8270C	9/2/2009	-14.5	-15	3.97E-02	U	3.97E-02	3.30E-01	8.18E+02	7.11E+04		
B7 0-1'	91-58-7	SW8270C	11/11/2009	0	-1	3.71E-02	U	3.71E-02	3.30E-01	8.18E+02	7.11E+04		
B7 14-15'	91-58-7	SW8270C	11/11/2009	-14	-15	3.82E-02	U	3.82E-02	3.30E-01	8.18E+02	7.11E+04		
B8-1	91-58-7	SW8270C	9/2/2009	-1	-1.5	3.92E-02	U	3.92E-02	3.30E-01	8.18E+02	7.11E+04		
B8-2	91-58-7	SW8270C	9/2/2009	-14	-15	3.82E-02	U	3.82E-02	3.30E-01	8.18E+02	7.11E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2-Chloronaphthalene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B9 0-1'	91-58-7	SW8270C	11/11/2009	0	-1	3.92E-02	U	3.92E-02	3.30E-01	8.18E+02	7.11E+04		
B9 14-15'	91-58-7	SW8270C	11/11/2009	-14	-15	3.80E-02	U	3.80E-02	3.30E-01	8.18E+02	7.11E+04		

2-Chlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	95-57-8	SW8270C	8/31/2009	0	-1	4.56E-02	U	4.56E-02	3.30E-01	5.11E+01	4.01E+03		
B1 0-1'	95-57-8	SW8270C	11/11/2009	0	-1	4.71E-02	U	4.71E-02	3.30E-01	5.11E+01	4.01E+03		
B1 14-15'	95-57-8	SW8270C	11/11/2009	-14	-15	4.24E-02	U	4.24E-02	3.30E-01	5.11E+01	4.01E+03		
B10-1	95-57-8	SW8270C	9/2/2009	-2	-3	5.44E-02	U	5.44E-02	3.30E-01	5.11E+01	4.01E+03		
B10-2	95-57-8	SW8270C	9/2/2009	-13	-14	4.63E-02	U	4.63E-02	3.30E-01	5.11E+01	4.01E+03		
B2 1-1.5	95-57-8	SW8270C	9/1/2009	-1	-1.5	4.31E-02	U	4.31E-02	3.30E-01	5.11E+01	4.01E+03		
B2 21-22.5	95-57-8	SW8270C	9/1/2009	-21	-22.5	5.10E-02	U	5.10E-02	3.30E-01	5.11E+01	4.01E+03		
B3 12-13	95-57-8	SW8270C	8/31/2009	-12	-13	4.10E-02	U	4.10E-02	3.30E-01	5.11E+01	4.01E+03		
B3 2-3	95-57-8	SW8270C	8/31/2009	-2	-3	4.79E-02	U	4.79E-02	3.30E-01	5.11E+01	4.01E+03		
B4 14-14.5	95-57-8	SW8270C	9/1/2009	-14	-14.5	4.60E-02	U	4.60E-02	3.30E-01	5.11E+01	4.01E+03		
B4 2-2.5	95-57-8	SW8270C	9/1/2009	-2	-2.5	4.97E-02	U	4.97E-02	3.30E-01	5.11E+01	4.01E+03		
B5-1	95-57-8	SW8270C	9/2/2009	-1	-1.5	4.89E-02	U	4.89E-02	3.30E-01	5.11E+01	4.01E+03		
B5-2	95-57-8	SW8270C	9/2/2009	-14.5	-15	4.66E-02	U	4.66E-02	3.30E-01	5.11E+01	4.01E+03		
B6-1	95-57-8	SW8270C	9/2/2009	-0.5	-1	4.52E-02	U	4.52E-02	3.30E-01	5.11E+01	4.01E+03		
B6-2	95-57-8	SW8270C	9/2/2009	-14.5	-15	4.66E-02	U	4.66E-02	3.30E-01	5.11E+01	4.01E+03		
B7 0-1'	95-57-8	SW8270C	11/11/2009	0	-1	4.35E-02	U	4.35E-02	3.30E-01	5.11E+01	4.01E+03		
B7 14-15'	95-57-8	SW8270C	11/11/2009	-14	-15	4.49E-02	U	4.49E-02	3.30E-01	5.11E+01	4.01E+03		
B8-1	95-57-8	SW8270C	9/2/2009	-1	-1.5	4.61E-02	U	4.61E-02	3.30E-01	5.11E+01	4.01E+03		
B8-2	95-57-8	SW8270C	9/2/2009	-14	-15	4.48E-02	U	4.48E-02	3.30E-01	5.11E+01	4.01E+03		
B9 0-1'	95-57-8	SW8270C	11/11/2009	0	-1	4.60E-02	U	4.60E-02	3.30E-01	5.11E+01	4.01E+03		
B9 14-15'	95-57-8	SW8270C	11/11/2009	-14	-15	4.46E-02	U	4.46E-02	3.30E-01	5.11E+01	4.01E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2-Chlorotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	95-49-8	SW8260B	8/31/2009	0	-1	1.22E-03	U	1.22E-03	5.00E-03	2.04E+02	3.53E+03		
B1 0-1'	95-49-8	SW8260B	11/11/2009	0	-1	1.81E-03	U	1.81E-03	5.00E-03	2.04E+02	3.53E+03		
B1 14-15'	95-49-8	SW8260B	11/11/2009	-14	-15	1.33E-03	U	1.33E-03	5.00E-03	2.04E+02	3.53E+03		
B10-1	95-49-8	SW8260B	9/2/2009	-2	-3	1.46E-03	U	1.46E-03	5.00E-03	2.04E+02	3.53E+03		
B10-2	95-49-8	SW8260B	9/2/2009	-13	-14	1.24E-03	U	1.24E-03	5.00E-03	2.04E+02	3.53E+03		
B2 1-1.5	95-49-8	SW8260B	9/1/2009	-1	-1.5	1.15E-03	U	1.15E-03	5.00E-03	2.04E+02	3.53E+03		
B2 21-22.5	95-49-8	SW8260B	9/1/2009	-21	-22.5	1.37E-03	U	1.37E-03	5.00E-03	2.04E+02	3.53E+03		
B3 12-13	95-49-8	SW8260B	8/31/2009	-12	-13	1.10E-03	U	1.10E-03	5.00E-03	2.04E+02	3.53E+03		
B3 2-3	95-49-8	SW8260B	8/31/2009	-2	-3	1.28E-03	U	1.28E-03	5.00E-03	2.04E+02	3.53E+03		
B4 14.5-15	95-49-8	SW8260B	9/1/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	2.04E+02	3.53E+03		
B4 2-2.5	95-49-8	SW8260B	9/1/2009	-2	-2.5	1.33E-03	U	1.33E-03	5.00E-03	2.04E+02	3.53E+03		
B5-1	95-49-8	SW8260B	9/2/2009	-1	-1.5	1.31E-03	U	1.31E-03	5.00E-03	2.04E+02	3.53E+03		
B5-2	95-49-8	SW8260B	9/2/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	2.04E+02	3.53E+03		
B6-1	95-49-8	SW8260B	9/2/2009	-0.5	-1	1.21E-03	U	1.21E-03	5.00E-03	2.04E+02	3.53E+03		
B6-2	95-49-8	SW8260B	9/2/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	2.04E+02	3.53E+03		
B7 0-1'	95-49-8	SW8260B	11/11/2009	0	-1	1.44E-03	U	1.44E-03	5.00E-03	2.04E+02	3.53E+03		
B7 14-15'	95-49-8	SW8260B	11/11/2009	-14	-15	1.57E-03	U	1.57E-03	5.00E-03	2.04E+02	3.53E+03		
B8-1	95-49-8	SW8260B	9/2/2009	-1	-1.5	1.23E-03	U	1.23E-03	5.00E-03	2.04E+02	3.53E+03		
B8-2	95-49-8	SW8260B	9/2/2009	-14	-15	1.20E-03	U	1.20E-03	5.00E-03	2.04E+02	3.53E+03		
B8-3	95-49-8	SW8260B	9/2/2009	-8	-8.5	1.30E-03	U	1.30E-03	5.00E-03	2.04E+02	3.53E+03		
B9 0-1'	95-49-8	SW8260B	11/11/2009	0	-1	1.69E-03	U	1.69E-03	5.00E-03	2.04E+02	3.53E+03		
B9 14-15'	95-49-8	SW8260B	11/11/2009	-14	-15	1.56E-03	U	1.56E-03	5.00E-03	2.04E+02	3.53E+03		

2-Hexanone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	591-78-6	SW8260B	8/31/2009	0	-1	7.63E-04	U	7.63E-04	1.00E-02	6.13E+02	8.71E+01		
B1 0-1'	591-78-6	SW8260B	11/11/2009	0	-1	1.14E-03	U	1.14E-03	1.00E-02	6.13E+02	8.71E+01		
B1 14-15'	591-78-6	SW8260B	11/11/2009	-14	-15	8.31E-04	U	8.31E-04	1.00E-02	6.13E+02	8.71E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2-Hexanone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-1	591-78-6	SW8260B	9/2/2009	-2	-3	9.10E-04	U	9.10E-04	1.00E-02	6.13E+02	8.71E+01		
B10-2	591-78-6	SW8260B	9/2/2009	-13	-14	7.75E-04	U	7.74E-04	1.00E-02	6.13E+02	8.71E+01		
B2 1-1.5	591-78-6	SW8260B	9/1/2009	-1	-1.5	7.21E-04	U	7.21E-04	1.00E-02	6.13E+02	8.71E+01		
B2 21-22.5	591-78-6	SW8260B	9/1/2009	-21	-22.5	8.53E-04	U	8.53E-04	1.00E-02	6.13E+02	8.71E+01		
B3 12-13	591-78-6	SW8260B	8/31/2009	-12	-13	6.86E-04	U	6.86E-04	1.00E-02	6.13E+02	8.71E+01		
B3 2-3	591-78-6	SW8260B	8/31/2009	-2	-3	8.02E-04	U	8.02E-04	1.00E-02	6.13E+02	8.71E+01		
B4 14.5-15	591-78-6	SW8260B	9/1/2009	-14.5	-15	7.79E-04	U	7.79E-04	1.00E-02	6.13E+02	8.71E+01		
B4 2-2.5	591-78-6	SW8260B	9/1/2009	-2	-2.5	8.31E-04	U	8.31E-04	1.00E-02	6.13E+02	8.71E+01		
B5-1	591-78-6	SW8260B	9/2/2009	-1	-1.5	8.18E-04	U	8.18E-04	1.00E-02	6.13E+02	8.71E+01		
B5-2	591-78-6	SW8260B	9/2/2009	-14.5	-15	7.79E-04	U	7.79E-04	1.00E-02	6.13E+02	8.71E+01		
B6-1	591-78-6	SW8260B	9/2/2009	-0.5	-1	7.56E-04	U	7.56E-04	1.00E-02	6.13E+02	8.71E+01		
B6-2	591-78-6	SW8260B	9/2/2009	-14.5	-15	7.79E-04	U	7.79E-04	1.00E-02	6.13E+02	8.71E+01		
B7 0-1'	591-78-6	SW8260B	11/11/2009	0	-1	8.97E-04	U	8.97E-04	1.00E-02	6.13E+02	8.71E+01		
B7 14-15'	591-78-6	SW8260B	11/11/2009	-14	-15	9.83E-04	U	9.83E-04	1.00E-02	6.13E+02	8.71E+01		
B8-1	591-78-6	SW8260B	9/2/2009	-1	-1.5	7.71E-04	U	7.71E-04	1.00E-02	6.13E+02	8.71E+01		
B8-2	591-78-6	SW8260B	9/2/2009	-14	-15	7.50E-04	U	7.50E-04	1.00E-02	6.13E+02	8.71E+01		
B8-3	591-78-6	SW8260B	9/2/2009	-8	-8.5	8.13E-04	U	8.13E-04	1.00E-02	6.13E+02	8.71E+01		
B9 0-1'	591-78-6	SW8260B	11/11/2009	0	-1	1.06E-03	U	1.06E-03	1.00E-02	6.13E+02	8.71E+01		
B9 14-15'	591-78-6	SW8260B	11/11/2009	-14	-15	9.69E-04	U	9.69E-04	1.00E-02	6.13E+02	8.71E+01		

2-Methylnaphthalene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	91-57-6	SW8270C	8/31/2009	0	-1	1.63E-01	U	1.63E-01	3.30E-01	4.09E+01	3.55E+03		
B1 0-1'	91-57-6	SW8270C	11/11/2009	0	-1	1.68E-01	U	1.68E-01	3.30E-01	4.09E+01	3.55E+03		
B1 14-15'	91-57-6	SW8270C	11/11/2009	-14	-15	1.52E-01	U	1.51E-01	3.30E-01	4.09E+01	3.55E+03		
B10-1	91-57-6	SW8270C	9/2/2009	-2	-3	1.94E-01	U	1.94E-01	3.30E-01	4.09E+01	3.55E+03		
B10-2	91-57-6	SW8270C	9/2/2009	-13	-14	1.65E-01	U	1.65E-01	3.30E-01	4.09E+01	3.55E+03		
B2 1-1.5	91-57-6	SW8270C	9/1/2009	-1	-1.5	1.54E-01	U	1.54E-01	3.30E-01	4.09E+01	3.55E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2-Methylnaphthalene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 21-22.5	91-57-6	SW8270C	9/1/2009	-21	-22.5	1.82E-01	U	1.82E-01	3.30E-01	4.09E+01	3.55E+03		
B3 12-13	91-57-6	SW8270C	8/31/2009	-12	-13	1.46E-01	U	1.46E-01	3.30E-01	4.09E+01	3.55E+03		
B3 2-3	91-57-6	SW8270C	8/31/2009	-2	-3	1.71E-01	U	1.71E-01	3.30E-01	4.09E+01	3.55E+03		
B4 14-14.5	91-57-6	SW8270C	9/1/2009	-14	-14.5	1.64E-01	U	1.64E-01	3.30E-01	4.09E+01	3.55E+03		
B4 2-2.5	91-57-6	SW8270C	9/1/2009	-2	-2.5	1.77E-01	U	1.77E-01	3.30E-01	4.09E+01	3.55E+03		
B5-1	91-57-6	SW8270C	9/2/2009	-1	-1.5	1.75E-01	U	1.75E-01	3.30E-01	4.09E+01	3.55E+03		
B5-2	91-57-6	SW8270C	9/2/2009	-14.5	-15	1.66E-01	U	1.66E-01	3.30E-01	4.09E+01	3.55E+03		
B6-1	91-57-6	SW8270C	9/2/2009	-0.5	-1	1.61E-01	U	1.61E-01	3.30E-01	4.09E+01	3.55E+03		
B6-2	91-57-6	SW8270C	9/2/2009	-14.5	-15	1.66E-01	U	1.66E-01	3.30E-01	4.09E+01	3.55E+03		
B7 0-1'	91-57-6	SW8270C	11/11/2009	0	-1	1.55E-01	U	1.55E-01	3.30E-01	4.09E+01	3.55E+03		
B7 14-15'	91-57-6	SW8270C	11/11/2009	-14	-15	1.60E-01	U	1.60E-01	3.30E-01	4.09E+01	3.55E+03		
B8-1	91-57-6	SW8270C	9/2/2009	-1	-1.5	1.65E-01	U	1.65E-01	3.30E-01	4.09E+01	3.55E+03		
B8-2	91-57-6	SW8270C	9/2/2009	-14	-15	1.60E-01	U	1.60E-01	3.30E-01	4.09E+01	3.55E+03		
B9 0-1'	91-57-6	SW8270C	11/11/2009	0	-1	1.64E-01	U	1.64E-01	3.30E-01	4.09E+01	3.55E+03		
B9 14-15'	91-57-6	SW8270C	11/11/2009	-14	-15	1.60E-01	U	1.59E-01	3.30E-01	4.09E+01	3.55E+03		

2-Methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	95-48-7	SW8270C	8/31/2009	0	-1	5.09E-02	U	5.09E-02	3.30E-01	5.11E+02	5.11E+04		
B1 0-1'	95-48-7	SW8270C	11/11/2009	0	-1	5.26E-02	U	5.26E-02	3.30E-01	5.11E+02	5.11E+04		
B1 14-15'	95-48-7	SW8270C	11/11/2009	-14	-15	4.74E-02	U	4.74E-02	3.30E-01	5.11E+02	5.11E+04		
B10-1	95-48-7	SW8270C	9/2/2009	-2	-3	6.07E-02	U	6.07E-02	3.30E-01	5.11E+02	5.11E+04		
B10-2	95-48-7	SW8270C	9/2/2009	-13	-14	5.17E-02	U	5.17E-02	3.30E-01	5.11E+02	5.11E+04		
B2 1-1.5	95-48-7	SW8270C	9/1/2009	-1	-1.5	4.81E-02	U	4.81E-02	3.30E-01	5.11E+02	5.11E+04		
B2 21-22.5	95-48-7	SW8270C	9/1/2009	-21	-22.5	5.70E-02	U	5.70E-02	3.30E-01	5.11E+02	5.11E+04		
B3 12-13	95-48-7	SW8270C	8/31/2009	-12	-13	4.58E-02	U	4.58E-02	3.30E-01	5.11E+02	5.11E+04		
B3 2-3	95-48-7	SW8270C	8/31/2009	-2	-3	5.35E-02	U	5.35E-02	3.30E-01	5.11E+02	5.11E+04		
B4 14-14.5	95-48-7	SW8270C	9/1/2009	-14	-14.5	5.14E-02	U	5.14E-02	3.30E-01	5.11E+02	5.11E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2-Methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 2-2.5	95-48-7	SW8270C	9/1/2009	-2	-2.5	5.55E-02	U	5.55E-02	3.30E-01	5.11E+02	5.11E+04		
B5-1	95-48-7	SW8270C	9/2/2009	-1	-1.5	5.46E-02	U	5.46E-02	3.30E-01	5.11E+02	5.11E+04		
B5-2	95-48-7	SW8270C	9/2/2009	-14.5	-15	5.20E-02	U	5.20E-02	3.30E-01	5.11E+02	5.11E+04		
B6-1	95-48-7	SW8270C	9/2/2009	-0.5	-1	5.05E-02	U	5.05E-02	3.30E-01	5.11E+02	5.11E+04		
B6-2	95-48-7	SW8270C	9/2/2009	-14.5	-15	5.20E-02	U	5.20E-02	3.30E-01	5.11E+02	5.11E+04		
B7 0-1'	95-48-7	SW8270C	11/11/2009	0	-1	4.86E-02	U	4.86E-02	3.30E-01	5.11E+02	5.11E+04		
B7 14-15'	95-48-7	SW8270C	11/11/2009	-14	-15	5.01E-02	U	5.01E-02	3.30E-01	5.11E+02	5.11E+04		
B8-1	95-48-7	SW8270C	9/2/2009	-1	-1.5	5.15E-02	U	5.15E-02	3.30E-01	5.11E+02	5.11E+04		
B8-2	95-48-7	SW8270C	9/2/2009	-14	-15	5.01E-02	U	5.01E-02	3.30E-01	5.11E+02	5.11E+04		
B9 0-1'	95-48-7	SW8270C	11/11/2009	0	-1	5.13E-02	U	5.13E-02	3.30E-01	5.11E+02	5.11E+04		
B9 14-15'	95-48-7	SW8270C	11/11/2009	-14	-15	4.99E-02	U	4.99E-02	3.30E-01	5.11E+02	5.11E+04		

2-Naphthylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	91-59-8	SW8270C	8/31/2009	0	-1	2.43E-02	U	2.43E-02	6.67E-02	1.59E-01	1.59E+01		
B1 0-1	91-59-8	SW8270C	8/31/2009	0	-1	3.31E-02	U	3.31E-02	3.30E-01	1.59E-01	1.59E+01		
B1 0-1'	91-59-8	SW8270C	11/11/2009	0	-1	2.51E-02	U	2.51E-02	6.60E-02	1.59E-01	1.59E+01		
B1 14-15'	91-59-8	SW8270C	11/11/2009	-14	-15	2.26E-02	U	2.26E-02	6.60E-02	1.59E-01	1.59E+01		
B10-1	91-59-8	SW8270C	9/2/2009	-2	-3	3.95E-02	U	3.95E-02	3.30E-01	1.59E-01	1.59E+01		
B10-1	91-59-8	SW8270C	9/2/2009	-2	-3	2.90E-02	U	2.90E-02	6.67E-02	1.59E-01	1.59E+01		
B10-2	91-59-8	SW8270C	9/2/2009	-13	-14	3.36E-02	U	3.36E-02	3.30E-01	1.59E-01	1.59E+01		
B10-2	91-59-8	SW8270C	9/2/2009	-13	-14	2.47E-02	U	2.47E-02	6.67E-02	1.59E-01	1.59E+01		
B2 1-1.5	91-59-8	SW8270C	9/1/2009	-1	-1.5	2.30E-02	U	2.30E-02	6.67E-02	1.59E-01	1.59E+01		
B2 1-1.5	91-59-8	SW8270C	9/1/2009	-1	-1.5	3.13E-02	U	3.13E-02	3.30E-01	1.59E-01	1.59E+01		
B2 21-22.5	91-59-8	SW8270C	9/1/2009	-21	-22.5	3.71E-02	U	3.71E-02	3.30E-01	1.59E-01	1.59E+01		
B2 21-22.5	91-59-8	SW8270C	9/1/2009	-21	-22.5	2.72E-02	U	2.72E-02	6.67E-02	1.59E-01	1.59E+01		
B3 12-13	91-59-8	SW8270C	8/31/2009	-12	-13	2.19E-02	U	2.19E-02	6.67E-02	1.59E-01	1.59E+01		
B3 12-13	91-59-8	SW8270C	8/31/2009	-12	-13	2.98E-02	U	2.98E-02	3.30E-01	1.59E-01	1.59E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2-Naphthylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B3 2-3	91-59-8	SW8270C	8/31/2009	-2	-3	2.56E-02	U	2.56E-02	6.67E-02	1.59E-01	1.59E+01		
B3 2-3	91-59-8	SW8270C	8/31/2009	-2	-3	3.48E-02	U	3.48E-02	3.30E-01	1.59E-01	1.59E+01		
B4 14-14.5	91-59-8	SW8270C	9/1/2009	-14	-14.5	3.35E-02	U	3.35E-02	3.30E-01	1.59E-01	1.59E+01		
B4 14-14.5	91-59-8	SW8270C	9/1/2009	-14	-14.5	2.45E-02	U	2.45E-02	6.67E-02	1.59E-01	1.59E+01		
B4 2-2.5	91-59-8	SW8270C	9/1/2009	-2	-2.5	3.61E-02	U	3.61E-02	3.30E-01	1.59E-01	1.59E+01		
B4 2-2.5	91-59-8	SW8270C	9/1/2009	-2	-2.5	2.65E-02	U	2.65E-02	6.67E-02	1.59E-01	1.59E+01		
B5-1	91-59-8	SW8270C	9/2/2009	-1	-1.5	3.55E-02	U	3.55E-02	3.30E-01	1.59E-01	1.59E+01		
B5-1	91-59-8	SW8270C	9/2/2009	-1	-1.5	2.61E-02	U	2.61E-02	6.67E-02	1.59E-01	1.59E+01		
B5-2	91-59-8	SW8270C	9/2/2009	-14.5	-15	2.48E-02	U	2.48E-02	6.67E-02	1.59E-01	1.59E+01		
B5-2	91-59-8	SW8270C	9/2/2009	-14.5	-15	3.38E-02	U	3.38E-02	3.30E-01	1.59E-01	1.59E+01		
B6-1	91-59-8	SW8270C	9/2/2009	-0.5	-1	2.41E-02	U	2.41E-02	6.67E-02	1.59E-01	1.59E+01		
B6-1	91-59-8	SW8270C	9/2/2009	-0.5	-1	3.28E-02	U	3.28E-02	3.30E-01	1.59E-01	1.59E+01		
B6-2	91-59-8	SW8270C	9/2/2009	-14.5	-15	3.38E-02	U	3.38E-02	3.30E-01	1.59E-01	1.59E+01		
B6-2	91-59-8	SW8270C	9/2/2009	-14.5	-15	2.48E-02	U	2.48E-02	6.67E-02	1.59E-01	1.59E+01		
B7 0-1'	91-59-8	SW8270C	11/11/2009	0	-1	2.32E-02	U	2.32E-02	6.60E-02	1.59E-01	1.59E+01		
B7 14-15'	91-59-8	SW8270C	11/11/2009	-14	-15	2.39E-02	U	2.39E-02	6.60E-02	1.59E-01	1.59E+01		
B8-1	91-59-8	SW8270C	9/2/2009	-1	-1.5	3.35E-02	U	3.35E-02	3.30E-01	1.59E-01	1.59E+01		
B8-1	91-59-8	SW8270C	9/2/2009	-1	-1.5	2.46E-02	U	2.46E-02	6.67E-02	1.59E-01	1.59E+01		
B8-2	91-59-8	SW8270C	9/2/2009	-14	-15	3.26E-02	U	3.26E-02	3.30E-01	1.59E-01	1.59E+01		
B8-2	91-59-8	SW8270C	9/2/2009	-14	-15	2.39E-02	U	2.39E-02	6.67E-02	1.59E-01	1.59E+01		
B9 0-1'	91-59-8	SW8270C	11/11/2009	0	-1	2.45E-02	U	2.45E-02	6.60E-02	1.59E-01	1.59E+01		
B9 14-15'	91-59-8	SW8270C	11/11/2009	-14	-15	2.38E-02	U	2.38E-02	6.60E-02	1.59E-01	1.59E+01		

2-Nitroaniline

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	88-74-4	SW8270C	8/31/2009	0	-1	3.36E-02	U	3.36E-02	3.30E-01	3.07E+00	3.07E+02		
B1 0-1'	88-74-4	SW8270C	11/11/2009	0	-1	3.47E-02	U	3.47E-02	3.30E-01	3.07E+00	3.07E+02		
B1 14-15'	88-74-4	SW8270C	11/11/2009	-14	-15	3.13E-02	U	3.13E-02	3.30E-01	3.07E+00	3.07E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2-Nitroaniline

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-1	88-74-4	SW8270C	9/2/2009	-2	-3	4.01E-02	U	4.01E-02	3.30E-01	3.07E+00	3.07E+02		
B10-2	88-74-4	SW8270C	9/2/2009	-13	-14	3.41E-02	U	3.41E-02	3.30E-01	3.07E+00	3.07E+02		
B2 1-1.5	88-74-4	SW8270C	9/1/2009	-1	-1.5	3.18E-02	U	3.18E-02	3.30E-01	3.07E+00	3.07E+02		
B2 21-22.5	88-74-4	SW8270C	9/1/2009	-21	-22.5	3.76E-02	U	3.76E-02	3.30E-01	3.07E+00	3.07E+02		
B3 12-13	88-74-4	SW8270C	8/31/2009	-12	-13	3.02E-02	U	3.02E-02	3.30E-01	3.07E+00	3.07E+02		
B3 2-3	88-74-4	SW8270C	8/31/2009	-2	-3	3.53E-02	U	3.53E-02	3.30E-01	3.07E+00	3.07E+02		
B4 14-14.5	88-74-4	SW8270C	9/1/2009	-14	-14.5	3.39E-02	U	3.39E-02	3.30E-01	3.07E+00	3.07E+02		
B4 2-2.5	88-74-4	SW8270C	9/1/2009	-2	-2.5	3.66E-02	U	3.66E-02	3.30E-01	3.07E+00	3.07E+02		
B5-1	88-74-4	SW8270C	9/2/2009	-1	-1.5	3.60E-02	U	3.60E-02	3.30E-01	3.07E+00	3.07E+02		
B5-2	88-74-4	SW8270C	9/2/2009	-14.5	-15	3.43E-02	U	3.43E-02	3.30E-01	3.07E+00	3.07E+02		
B6-1	88-74-4	SW8270C	9/2/2009	-0.5	-1	3.33E-02	U	3.33E-02	3.30E-01	3.07E+00	3.07E+02		
B6-2	88-74-4	SW8270C	9/2/2009	-14.5	-15	3.43E-02	U	3.43E-02	3.30E-01	3.07E+00	3.07E+02		
B7 0-1'	88-74-4	SW8270C	11/11/2009	0	-1	3.21E-02	U	3.21E-02	3.30E-01	3.07E+00	3.07E+02		
B7 14-15'	88-74-4	SW8270C	11/11/2009	-14	-15	3.31E-02	U	3.31E-02	3.30E-01	3.07E+00	3.07E+02		
B8-1	88-74-4	SW8270C	9/2/2009	-1	-1.5	3.40E-02	U	3.40E-02	3.30E-01	3.07E+00	3.07E+02		
B8-2	88-74-4	SW8270C	9/2/2009	-14	-15	3.30E-02	U	3.30E-02	3.30E-01	3.07E+00	3.07E+02		
B9 0-1'	88-74-4	SW8270C	11/11/2009	0	-1	3.39E-02	U	3.39E-02	3.30E-01	3.07E+00	3.07E+02		
B9 14-15'	88-74-4	SW8270C	11/11/2009	-14	-15	3.29E-02	U	3.29E-02	3.30E-01	3.07E+00	3.07E+02		

2-Nitrophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	88-75-5	SW8270C	8/31/2009	0	-1	4.65E-02	U	4.65E-02	3.30E-01	2.04E+01	2.04E+03		
B1 0-1'	88-75-5	SW8270C	11/11/2009	0	-1	4.81E-02	U	4.81E-02	3.30E-01	2.04E+01	2.04E+03		
B1 14-15'	88-75-5	SW8270C	11/11/2009	-14	-15	4.33E-02	U	4.33E-02	3.30E-01	2.04E+01	2.04E+03		
B10-1	88-75-5	SW8270C	9/2/2009	-2	-3	5.55E-02	U	5.55E-02	3.30E-01	2.04E+01	2.04E+03		
B10-2	88-75-5	SW8270C	9/2/2009	-13	-14	4.72E-02	U	4.72E-02	3.30E-01	2.04E+01	2.04E+03		
B2 1-1.5	88-75-5	SW8270C	9/1/2009	-1	-1.5	4.40E-02	U	4.40E-02	3.30E-01	2.04E+01	2.04E+03		
B2 21-22.5	88-75-5	SW8270C	9/1/2009	-21	-22.5	5.20E-02	U	5.20E-02	3.30E-01	2.04E+01	2.04E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2-Nitrophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B3 12-13	88-75-5	SW8270C	8/31/2009	-12	-13	4.18E-02	U	4.18E-02	3.30E-01	2.04E+01	2.04E+03		
B3 2-3	88-75-5	SW8270C	8/31/2009	-2	-3	4.89E-02	U	4.89E-02	3.30E-01	2.04E+01	2.04E+03		
B4 14-14.5	88-75-5	SW8270C	9/1/2009	-14	-14.5	4.69E-02	U	4.69E-02	3.30E-01	2.04E+01	2.04E+03		
B4 2-2.5	88-75-5	SW8270C	9/1/2009	-2	-2.5	5.07E-02	U	5.07E-02	3.30E-01	2.04E+01	2.04E+03		
B5-1	88-75-5	SW8270C	9/2/2009	-1	-1.5	4.99E-02	U	4.99E-02	3.30E-01	2.04E+01	2.04E+03		
B5-2	88-75-5	SW8270C	9/2/2009	-14.5	-15	4.75E-02	U	4.75E-02	3.30E-01	2.04E+01	2.04E+03		
B6-1	88-75-5	SW8270C	9/2/2009	-0.5	-1	4.61E-02	U	4.61E-02	3.30E-01	2.04E+01	2.04E+03		
B6-2	88-75-5	SW8270C	9/2/2009	-14.5	-15	4.75E-02	U	4.75E-02	3.30E-01	2.04E+01	2.04E+03		
B7 0-1'	88-75-5	SW8270C	11/11/2009	0	-1	4.44E-02	U	4.44E-02	3.30E-01	2.04E+01	2.04E+03		
B7 14-15'	88-75-5	SW8270C	11/11/2009	-14	-15	4.58E-02	U	4.58E-02	3.30E-01	2.04E+01	2.04E+03		
B8-1	88-75-5	SW8270C	9/2/2009	-1	-1.5	4.70E-02	U	4.70E-02	3.30E-01	2.04E+01	2.04E+03		
B8-2	88-75-5	SW8270C	9/2/2009	-14	-15	4.57E-02	U	4.57E-02	3.30E-01	2.04E+01	2.04E+03		
B9 0-1'	88-75-5	SW8270C	11/11/2009	0	-1	4.69E-02	U	4.69E-02	3.30E-01	2.04E+01	2.04E+03		
B9 14-15'	88-75-5	SW8270C	11/11/2009	-14	-15	4.56E-02	U	4.56E-02	3.30E-01	2.04E+01	2.04E+03		

2-Nitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 1-2 FT	88-72-2	SW-846 8	8/31/2009	-1	-2	1.18E+00	U	1.18E+00	1.00E-01	1.02E+02	8.58E+02		
B1 13-14	88-72-2	SW-846 8	8/31/2009	-13	-14	1.18E+00	U	1.18E+00	1.00E-01	1.02E+02	8.58E+02		
B10 1 - 2	88-72-2	SW-846 8	9/2/2009	-1	-2	1.40E+00	U	1.40E+00	1.00E-01	1.02E+02	8.58E+02		
B10 11.5 - 1	88-72-2	SW-846 8	9/2/2009	-11.5	-12	1.45E+00	U	1.45E+00	1.00E-01	1.02E+02	8.58E+02		
B2 0.5-1.0	88-72-2	SW-846 8	9/1/2009	-0.5	-1	1.18E+00	U	1.18E+00	1.00E-01	1.02E+02	8.58E+02		
B2 21-21.5	88-72-2	SW-846 8	9/1/2009	-21	-21.5	1.18E+00	U	1.18E+00	1.00E-01	1.02E+02	8.58E+02		
B3 0-1	88-72-2	SW-846 8	8/31/2009	0	-1	1.18E+00	U	1.18E+00	1.00E-01	1.02E+02	8.58E+02		
B3 14-15	88-72-2	SW-846 8	8/31/2009	-14	-15	1.18E+00	U	1.18E+00	1.00E-01	1.02E+02	8.58E+02		
B4 13-14	88-72-2	SW-846 8	9/1/2009	-13	-14	1.18E+00	U	1.18E+00	1.00E-01	1.02E+02	8.58E+02		
B4 3-3.5	88-72-2	SW-846 8	9/1/2009	-3	-3.5	1.18E+00	U	1.18E+00	1.00E-01	1.02E+02	8.58E+02		
B5 14 - 14.	88-72-2	SW-846 8	9/2/2009	-14	-14.5	1.38E+00	U	1.38E+00	1.00E-01	1.02E+02	8.58E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

2-Nitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B5 0.5 - 1 M	88-72-2	SW-846 8	9/2/2009	-0.5	-1	1.44E+00	U	1.44E+00	1.00E-01	1.02E+02	8.58E+02		
B6 1 - 1.5	88-72-2	SW-846 8	9/2/2009	-1	-1.5	1.39E+00	U	1.39E+00	1.00E-01	1.02E+02	8.58E+02		
B6 14 - 14.5	88-72-2	SW-846 8	9/2/2009	-14	-14.5	1.36E+00	U	1.36E+00	1.00E-01	1.02E+02	8.58E+02		
B7 0-1 FT	88-72-2	SW-846 8	8/31/2009	0	-1	1.18E+00	U	1.18E+00	1.00E-01	1.02E+02	8.58E+02		
B7 14-15	88-72-2	SW-846 8	8/31/2009	-14	-15	1.18E+00	U	1.18E+00	1.00E-01	1.02E+02	8.58E+02		
B8 13 - 14	88-72-2	SW-846 8	9/2/2009	-13	-14	1.34E+00	U	1.34E+00	1.00E-01	1.02E+02	8.58E+02		
B8 2.75 - 3	88-72-2	SW-846 8	9/2/2009	-2.75	-3	1.48E+00	U	1.48E+00	1.00E-01	1.02E+02	8.58E+02		
B9 14-15	88-72-2	SW-846 8	8/31/2009	-14	-15	1.18E+00	U	1.18E+00	1.00E-01	1.02E+02	8.58E+02		
B9-0-2 FT	88-72-2	SW-846 8	8/31/2009	0	-2	1.18E+00	U	1.18E+00	1.00E-01	1.02E+02	8.58E+02		

3,3´-Dichlorobenzidine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	91-94-1	SW8270C	8/31/2009	0	-1	1.86E-01	U	1.86E-01	3.30E-01	6.36E-02	6.36E+00		
B1 0-1	91-94-1	SW8270C	8/31/2009	0	-1	2.12E-02	U	2.12E-02	6.67E-02	6.36E-02	6.36E+00		
B1 0-1'	91-94-1	SW8270C	11/11/2009	0	-1	2.19E-02	U	2.19E-02	6.60E-02	6.36E-02	6.36E+00		
B1 14-15'	91-94-1	SW8270C	11/11/2009	-14	-15	1.97E-02	U	1.97E-02	6.60E-02	6.36E-02	6.36E+00		
B10-1	91-94-1	SW8270C	9/2/2009	-2	-3	2.22E-01	U	2.22E-01	3.30E-01	6.36E-02	6.36E+00		
B10-1	91-94-1	SW8270C	9/2/2009	-2	-3	2.52E-02	U	2.52E-02	6.67E-02	6.36E-02	6.36E+00		
B10-2	91-94-1	SW8270C	9/2/2009	-13	-14	1.89E-01	U	1.89E-01	3.30E-01	6.36E-02	6.36E+00		
B10-2	91-94-1	SW8270C	9/2/2009	-13	-14	2.15E-02	U	2.15E-02	6.67E-02	6.36E-02	6.36E+00		
B2 1-1.5	91-94-1	SW8270C	9/1/2009	-1	-1.5	1.76E-01	U	1.76E-01	3.30E-01	6.36E-02	6.36E+00		
B2 1-1.5	91-94-1	SW8270C	9/1/2009	-1	-1.5	2.00E-02	U	2.00E-02	6.67E-02	6.36E-02	6.36E+00		
B2 21-22.5	91-94-1	SW8270C	9/1/2009	-21	-22.5	2.37E-02	U	2.37E-02	6.67E-02	6.36E-02	6.36E+00		
B2 21-22.5	91-94-1	SW8270C	9/1/2009	-21	-22.5	2.08E-01	U	2.08E-01	3.30E-01	6.36E-02	6.36E+00		
B3 12-13	91-94-1	SW8270C	8/31/2009	-12	-13	1.90E-02	U	1.90E-02	6.67E-02	6.36E-02	6.36E+00		
B3 12-13	91-94-1	SW8270C	8/31/2009	-12	-13	1.67E-01	U	1.67E-01	3.30E-01	6.36E-02	6.36E+00		
B3 2-3	91-94-1	SW8270C	8/31/2009	-2	-3	2.22E-02	U	2.22E-02	6.67E-02	6.36E-02	6.36E+00		
B3 2-3	91-94-1	SW8270C	8/31/2009	-2	-3	1.96E-01	U	1.96E-01	3.30E-01	6.36E-02	6.36E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

3,3´-Dichlorobenzidine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 14-14.5	91-94-1	SW8270C	9/1/2009	-14	-14.5	1.88E-01	U	1.88E-01	3.30E-01	6.36E-02	6.36E+00		
B4 14-14.5	91-94-1	SW8270C	9/1/2009	-14	-14.5	2.14E-02	U	2.14E-02	6.67E-02	6.36E-02	6.36E+00		
B4 2-2.5	91-94-1	SW8270C	9/1/2009	-2	-2.5	2.31E-02	U	2.31E-02	6.67E-02	6.36E-02	6.36E+00		
B4 2-2.5	91-94-1	SW8270C	9/1/2009	-2	-2.5	2.03E-01	U	2.03E-01	3.30E-01	6.36E-02	6.36E+00		
B5-1	91-94-1	SW8270C	9/2/2009	-1	-1.5	2.00E-01	U	2.00E-01	3.30E-01	6.36E-02	6.36E+00		
B5-1	91-94-1	SW8270C	9/2/2009	-1	-1.5	2.27E-02	U	2.27E-02	6.67E-02	6.36E-02	6.36E+00		
B5-2	91-94-1	SW8270C	9/2/2009	-14.5	-15	2.16E-02	U	2.16E-02	6.67E-02	6.36E-02	6.36E+00		
B5-2	91-94-1	SW8270C	9/2/2009	-14.5	-15	1.90E-01	U	1.90E-01	3.30E-01	6.36E-02	6.36E+00		
B6-1	91-94-1	SW8270C	9/2/2009	-0.5	-1	1.84E-01	U	1.84E-01	3.30E-01	6.36E-02	6.36E+00		
B6-1	91-94-1	SW8270C	9/2/2009	-0.5	-1	2.10E-02	U	2.10E-02	6.67E-02	6.36E-02	6.36E+00		
B6-2	91-94-1	SW8270C	9/2/2009	-14.5	-15	1.90E-01	U	1.90E-01	3.30E-01	6.36E-02	6.36E+00		
B6-2	91-94-1	SW8270C	9/2/2009	-14.5	-15	2.16E-02	U	2.16E-02	6.67E-02	6.36E-02	6.36E+00		
B7 0-1'	91-94-1	SW8270C	11/11/2009	0	-1	2.02E-02	U	2.02E-02	6.60E-02	6.36E-02	6.36E+00		
B7 14-15'	91-94-1	SW8270C	11/11/2009	-14	-15	2.08E-02	U	2.08E-02	6.60E-02	6.36E-02	6.36E+00		
B8-1	91-94-1	SW8270C	9/2/2009	-1	-1.5	2.14E-02	U	2.14E-02	6.67E-02	6.36E-02	6.36E+00		
B8-1	91-94-1	SW8270C	9/2/2009	-1	-1.5	1.88E-01	U	1.88E-01	3.30E-01	6.36E-02	6.36E+00		
B8-2	91-94-1	SW8270C	9/2/2009	-14	-15	2.08E-02	U	2.08E-02	6.67E-02	6.36E-02	6.36E+00		
B8-2	91-94-1	SW8270C	9/2/2009	-14	-15	1.83E-01	U	1.83E-01	3.30E-01	6.36E-02	6.36E+00		
B9 0-1'	91-94-1	SW8270C	11/11/2009	0	-1	2.13E-02	U	2.13E-02	6.60E-02	6.36E-02	6.36E+00		
B9 14-15'	91-94-1	SW8270C	11/11/2009	-14	-15	2.07E-02	U	2.07E-02	6.60E-02	6.36E-02	6.36E+00		

3-Methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	108-39-4	SW8270C	8/31/2009	0	-1	2.79E-01	U	2.79E-01	6.60E-01	5.11E+02	5.11E+04		
B1 0-1'	108-39-4	SW8270C	11/11/2009	0	-1	2.88E-01	U	2.88E-01	6.60E-01	5.11E+02	5.11E+04		
B1 14-15'	108-39-4	SW8270C	11/11/2009	-14	-15	2.60E-01	U	2.60E-01	6.60E-01	5.11E+02	5.11E+04		
B10-1	108-39-4	SW8270C	9/2/2009	-2	-3	3.33E-01	U	3.33E-01	6.60E-01	5.11E+02	5.11E+04		
B10-2	108-39-4	SW8270C	9/2/2009	-13	-14	2.83E-01	U	2.83E-01	6.60E-01	5.11E+02	5.11E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

3-Methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 1-1.5	108-39-4	SW8270C	9/1/2009	-1	-1.5	2.64E-01	U	2.64E-01	6.60E-01	5.11E+02	5.11E+04		
B2 21-22.5	108-39-4	SW8270C	9/1/2009	-21	-22.5	3.12E-01	U	3.12E-01	6.60E-01	5.11E+02	5.11E+04		
B3 12-13	108-39-4	SW8270C	8/31/2009	-12	-13	2.51E-01	U	2.51E-01	6.60E-01	5.11E+02	5.11E+04		
B3 2-3	108-39-4	SW8270C	8/31/2009	-2	-3	2.93E-01	U	2.93E-01	6.60E-01	5.11E+02	5.11E+04		
B4 14-14.5	108-39-4	SW8270C	9/1/2009	-14	-14.5	2.82E-01	U	2.82E-01	6.60E-01	5.11E+02	5.11E+04		
B4 2-2.5	108-39-4	SW8270C	9/1/2009	-2	-2.5	3.04E-01	U	3.04E-01	6.60E-01	5.11E+02	5.11E+04		
B5-1	108-39-4	SW8270C	9/2/2009	-1	-1.5	2.99E-01	U	2.99E-01	6.60E-01	5.11E+02	5.11E+04		
B5-2	108-39-4	SW8270C	9/2/2009	-14.5	-15	2.85E-01	U	2.85E-01	6.60E-01	5.11E+02	5.11E+04		
B6-1	108-39-4	SW8270C	9/2/2009	-0.5	-1	2.77E-01	U	2.76E-01	6.60E-01	5.11E+02	5.11E+04		
B6-2	108-39-4	SW8270C	9/2/2009	-14.5	-15	2.85E-01	U	2.85E-01	6.60E-01	5.11E+02	5.11E+04		
B7 0-1'	108-39-4	SW8270C	11/11/2009	0	-1	2.66E-01	U	2.66E-01	6.60E-01	5.11E+02	5.11E+04		
B7 14-15'	108-39-4	SW8270C	11/11/2009	-14	-15	2.75E-01	U	2.75E-01	6.60E-01	5.11E+02	5.11E+04		
B8-1	108-39-4	SW8270C	9/2/2009	-1	-1.5	2.82E-01	U	2.82E-01	6.60E-01	5.11E+02	5.11E+04		
B8-2	108-39-4	SW8270C	9/2/2009	-14	-15	2.74E-01	U	2.74E-01	6.60E-01	5.11E+02	5.11E+04		
B9 0-1'	108-39-4	SW8270C	11/11/2009	0	-1	2.81E-01	U	2.81E-01	6.60E-01	5.11E+02	5.11E+04		
B9 14-15'	108-39-4	SW8270C	11/11/2009	-14	-15	2.73E-01	U	2.73E-01	6.60E-01	5.11E+02	5.11E+04		

3-Nitroaniline

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	99-09-2	SW8270C	8/31/2009	0	-1	8.20E-02	U	8.20E-02	3.30E-01	3.07E+00	3.07E+02		
B1 0-1'	99-09-2	SW8270C	11/11/2009	0	-1	8.47E-02	U	8.47E-02	3.30E-01	3.07E+00	3.07E+02		
B1 14-15'	99-09-2	SW8270C	11/11/2009	-14	-15	7.63E-02	U	7.63E-02	3.30E-01	3.07E+00	3.07E+02		
B10-1	99-09-2	SW8270C	9/2/2009	-2	-3	9.78E-02	U	9.78E-02	3.30E-01	3.07E+00	3.07E+02		
B10-2	99-09-2	SW8270C	9/2/2009	-13	-14	8.32E-02	U	8.32E-02	3.30E-01	3.07E+00	3.07E+02		
B2 1-1.5	99-09-2	SW8270C	9/1/2009	-1	-1.5	7.75E-02	U	7.75E-02	3.30E-01	3.07E+00	3.07E+02		
B2 21-22.5	99-09-2	SW8270C	9/1/2009	-21	-22.5	9.17E-02	U	9.17E-02	3.30E-01	3.07E+00	3.07E+02		
B3 12-13	99-09-2	SW8270C	8/31/2009	-12	-13	7.37E-02	U	7.37E-02	3.30E-01	3.07E+00	3.07E+02		
B3 2-3	99-09-2	SW8270C	8/31/2009	-2	-3	8.62E-02	U	8.62E-02	3.30E-01	3.07E+00	3.07E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

3-Nitroaniline

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 14-14.5	99-09-2	SW8270C	9/1/2009	-14	-14.5	8.27E-02	U	8.27E-02	3.30E-01	3.07E+00	3.07E+02		
B4 2-2.5	99-09-2	SW8270C	9/1/2009	-2	-2.5	8.94E-02	U	8.94E-02	3.30E-01	3.07E+00	3.07E+02		
B5-1	99-09-2	SW8270C	9/2/2009	-1	-1.5	8.79E-02	U	8.79E-02	3.30E-01	3.07E+00	3.07E+02		
B5-2	99-09-2	SW8270C	9/2/2009	-14.5	-15	8.37E-02	U	8.37E-02	3.30E-01	3.07E+00	3.07E+02		
B6-1	99-09-2	SW8270C	9/2/2009	-0.5	-1	8.12E-02	U	8.12E-02	3.30E-01	3.07E+00	3.07E+02		
B6-2	99-09-2	SW8270C	9/2/2009	-14.5	-15	8.37E-02	U	8.37E-02	3.30E-01	3.07E+00	3.07E+02		
B7 0-1'	99-09-2	SW8270C	11/11/2009	0	-1	7.83E-02	U	7.83E-02	3.30E-01	3.07E+00	3.07E+02		
B7 14-15'	99-09-2	SW8270C	11/11/2009	-14	-15	8.07E-02	U	8.07E-02	3.30E-01	3.07E+00	3.07E+02		
B8-1	99-09-2	SW8270C	9/2/2009	-1	-1.5	8.28E-02	U	8.28E-02	3.30E-01	3.07E+00	3.07E+02		
B8-2	99-09-2	SW8270C	9/2/2009	-14	-15	8.06E-02	U	8.06E-02	3.30E-01	3.07E+00	3.07E+02		
B9 0-1'	99-09-2	SW8270C	11/11/2009	0	-1	8.26E-02	U	8.26E-02	3.30E-01	3.07E+00	3.07E+02		
B9 14-15'	99-09-2	SW8270C	11/11/2009	-14	-15	8.03E-02	U	8.03E-02	3.30E-01	3.07E+00	3.07E+02		

3-Nitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 1-2 FT	99-08-1	SW-846 8	8/31/2009	-1	-2	7.53E-01	U	7.53E-01	1.00E-01	1.02E+02	7.93E+02		
B1 13-14	99-08-1	SW-846 8	8/31/2009	-13	-14	7.53E-01	U	7.53E-01	1.00E-01	1.02E+02	7.93E+02		
B10 1 - 2	99-08-1	SW-846 8	9/2/2009	-1	-2	8.94E-01	U	8.94E-01	1.00E-01	1.02E+02	7.93E+02		
B10 11.5 - 1	99-08-1	SW-846 8	9/2/2009	-11.5	-12	9.25E-01	U	9.25E-01	1.00E-01	1.02E+02	7.93E+02		
B2 0.5-1.0	99-08-1	SW-846 8	9/1/2009	-0.5	-1	7.53E-01	U	7.53E-01	1.00E-01	1.02E+02	7.93E+02		
B2 21-21.5	99-08-1	SW-846 8	9/1/2009	-21	-21.5	7.53E-01	U	7.53E-01	1.00E-01	1.02E+02	7.93E+02		
B3 0-1	99-08-1	SW-846 8	8/31/2009	0	-1	7.53E-01	U	7.53E-01	1.00E-01	1.02E+02	7.93E+02		
B3 14-15	99-08-1	SW-846 8	8/31/2009	-14	-15	7.53E-01	U	7.53E-01	1.00E-01	1.02E+02	7.93E+02		
B4 13-14	99-08-1	SW-846 8	9/1/2009	-13	-14	7.53E-01	U	7.53E-01	1.00E-01	1.02E+02	7.93E+02		
B4 3-3.5	99-08-1	SW-846 8	9/1/2009	-3	-3.5	7.53E-01	U	7.53E-01	1.00E-01	1.02E+02	7.93E+02		
B5 14 - 14.	99-08-1	SW-846 8	9/2/2009	-14	-14.5	8.83E-01	U	8.83E-01	1.00E-01	1.02E+02	7.93E+02		
B5 0.5 - 1 M	99-08-1	SW-846 8	9/2/2009	-0.5	-1	9.19E-01	U	9.19E-01	1.00E-01	1.02E+02	7.93E+02		
B6 1 - 1.5	99-08-1	SW-846 8	9/2/2009	-1	-1.5	8.86E-01	U	8.86E-01	1.00E-01	1.02E+02	7.93E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

3-Nitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6 14 - 14.5	99-08-1	SW-846 8	9/2/2009	-14	-14.5	8.67E-01	U	8.67E-01	1.00E-01	1.02E+02	7.93E+02		
B7 0-1 FT	99-08-1	SW-846 8	8/31/2009	0	-1	7.53E-01	U	7.53E-01	1.00E-01	1.02E+02	7.93E+02		
B7 14-15	99-08-1	SW-846 8	8/31/2009	-14	-15	7.53E-01	U	7.53E-01	1.00E-01	1.02E+02	7.93E+02		
B8 13 - 14	99-08-1	SW-846 8	9/2/2009	-13	-14	8.55E-01	U	8.55E-01	1.00E-01	1.02E+02	7.93E+02		
B8 2.75 - 3	99-08-1	SW-846 8	9/2/2009	-2.75	-3	9.45E-01	U	9.45E-01	1.00E-01	1.02E+02	7.93E+02		
B9 14-15	99-08-1	SW-846 8	8/31/2009	-14	-15	7.53E-01	U	7.53E-01	1.00E-01	1.02E+02	7.93E+02		
B9-0-2 FT	99-08-1	SW-846 8	8/31/2009	0	-2	7.53E-01	U	7.53E-01	1.00E-01	1.02E+02	7.93E+02		

4,6-Dinitro-2-methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	534-52-1	SW8270C	8/31/2009	0	-1	1.28E-01	U	1.28E-01	3.30E-01	2.04E+01	2.04E+03		
B1 0-1'	534-52-1	SW8270C	11/11/2009	0	-1	1.32E-01	U	1.32E-01	3.30E-01	2.04E+01	2.04E+03		
B1 14-15'	534-52-1	SW8270C	11/11/2009	-14	-15	1.19E-01	U	1.19E-01	3.30E-01	2.04E+01	2.04E+03		
B10-1	534-52-1	SW8270C	9/2/2009	-2	-3	1.53E-01	U	1.53E-01	3.30E-01	2.04E+01	2.04E+03		
B10-2	534-52-1	SW8270C	9/2/2009	-13	-14	1.30E-01	U	1.30E-01	3.30E-01	2.04E+01	2.04E+03		
B2 1-1.5	534-52-1	SW8270C	9/1/2009	-1	-1.5	1.21E-01	U	1.21E-01	3.30E-01	2.04E+01	2.04E+03		
B2 21-22.5	534-52-1	SW8270C	9/1/2009	-21	-22.5	1.43E-01	U	1.43E-01	3.30E-01	2.04E+01	2.04E+03		
B3 12-13	534-52-1	SW8270C	8/31/2009	-12	-13	1.15E-01	U	1.15E-01	3.30E-01	2.04E+01	2.04E+03		
B3 2-3	534-52-1	SW8270C	8/31/2009	-2	-3	1.35E-01	U	1.34E-01	3.30E-01	2.04E+01	2.04E+03		
B4 14-14.5	534-52-1	SW8270C	9/1/2009	-14	-14.5	1.29E-01	U	1.29E-01	3.30E-01	2.04E+01	2.04E+03		
B4 2-2.5	534-52-1	SW8270C	9/1/2009	-2	-2.5	1.39E-01	U	1.39E-01	3.30E-01	2.04E+01	2.04E+03		
B5-1	534-52-1	SW8270C	9/2/2009	-1	-1.5	1.37E-01	U	1.37E-01	3.30E-01	2.04E+01	2.04E+03		
B5-2	534-52-1	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	2.04E+01	2.04E+03		
B6-1	534-52-1	SW8270C	9/2/2009	-0.5	-1	1.27E-01	U	1.27E-01	3.30E-01	2.04E+01	2.04E+03		
B6-2	534-52-1	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	2.04E+01	2.04E+03		
B7 0-1'	534-52-1	SW8270C	11/11/2009	0	-1	1.22E-01	U	1.22E-01	3.30E-01	2.04E+01	2.04E+03		
B7 14-15'	534-52-1	SW8270C	11/11/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	2.04E+01	2.04E+03		
B8-1	534-52-1	SW8270C	9/2/2009	-1	-1.5	1.29E-01	U	1.29E-01	3.30E-01	2.04E+01	2.04E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

4,6-Dinitro-2-methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8-2	534-52-1	SW8270C	9/2/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	2.04E+01	2.04E+03		
B9 0-1'	534-52-1	SW8270C	11/11/2009	0	-1	1.29E-01	U	1.29E-01	3.30E-01	2.04E+01	2.04E+03		
B9 14-15'	534-52-1	SW8270C	11/11/2009	-14	-15	1.25E-01	U	1.25E-01	3.30E-01	2.04E+01	2.04E+03		

4-Amino-2,6-dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 1-2 FT	19406-51-	SW-846 8	8/31/2009	-1	-2	2.41E+00	U	2.41E+00	1.00E-01	1.70E+00	1.70E+02		
B1 13-14	19406-51-	SW-846 8	8/31/2009	-13	-14	2.41E+00	U	2.41E+00	1.00E-01	1.70E+00	1.70E+02		
B10 1 - 2	19406-51-	SW-846 8	9/2/2009	-1	-2	2.86E+00	U	2.86E+00	1.00E-01	1.70E+00	1.70E+02		
B10 11.5 - 1	19406-51-	SW-846 8	9/2/2009	-11.5	-12	2.96E+00	U	2.96E+00	1.00E-01	1.70E+00	1.70E+02		
B2 0.5-1.0	19406-51-	SW-846 8	9/1/2009	-0.5	-1	2.41E+00	U	2.41E+00	1.00E-01	1.70E+00	1.70E+02		
B2 21-21.5	19406-51-	SW-846 8	9/1/2009	-21	-21.5	2.41E+00	U	2.41E+00	1.00E-01	1.70E+00	1.70E+02		
B3 0-1	19406-51-	SW-846 8	8/31/2009	0	-1	2.41E+00	U	2.41E+00	1.00E-01	1.70E+00	1.70E+02		
B3 14-15	19406-51-	SW-846 8	8/31/2009	-14	-15	2.41E+00	U	2.41E+00	1.00E-01	1.70E+00	1.70E+02		
B4 13-14	19406-51-	SW-846 8	9/1/2009	-13	-14	2.41E+00	U	2.41E+00	1.00E-01	1.70E+00	1.70E+02		
B4 3-3.5	19406-51-	SW-846 8	9/1/2009	-3	-3.5	2.41E+00	U	2.41E+00	1.00E-01	1.70E+00	1.70E+02		
B5 14 - 14.	19406-51-	SW-846 8	9/2/2009	-14	-14.5	2.83E+00	U	2.83E+00	1.00E-01	1.70E+00	1.70E+02		
B5 0.5 - 1 M	19406-51-	SW-846 8	9/2/2009	-0.5	-1	2.94E+00	U	2.94E+00	1.00E-01	1.70E+00	1.70E+02		
B6 1 - 1.5	19406-51-	SW-846 8	9/2/2009	-1	-1.5	2.84E+00	U	2.84E+00	1.00E-01	1.70E+00	1.70E+02		
B6 14 - 14.5	19406-51-	SW-846 8	9/2/2009	-14	-14.5	2.77E+00	U	2.77E+00	1.00E-01	1.70E+00	1.70E+02		
B7 0-1 FT	19406-51-	SW-846 8	8/31/2009	0	-1	2.41E+00	U	2.41E+00	1.00E-01	1.70E+00	1.70E+02		
B7 14-15	19406-51-	SW-846 8	8/31/2009	-14	-15	2.41E+00	U	2.41E+00	1.00E-01	1.70E+00	1.70E+02		
B8 13 - 14	19406-51-	SW-846 8	9/2/2009	-13	-14	2.74E+00	U	2.74E+00	1.00E-01	1.70E+00	1.70E+02		
B8 2.75 - 3	19406-51-	SW-846 8	9/2/2009	-2.75	-3	3.02E+00	U	3.02E+00	1.00E-01	1.70E+00	1.70E+02		
B9 14-15	19406-51-	SW-846 8	8/31/2009	-14	-15	2.41E+00	U	2.41E+00	1.00E-01	1.70E+00	1.70E+02		
B9-0-2 FT	19406-51-	SW-846 8	8/31/2009	0	-2	2.41E+00	U	2.41E+00	1.00E-01	1.70E+00	1.70E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

4-Bromophenyl phenyl ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	101-55-3	SW8270C	8/31/2009	0	-1	3.85E-02	U	3.85E-02	3.30E-01	3.53E+01	1.64E+00		
B1 0-1'	101-55-3	SW8270C	11/11/2009	0	-1	1.08E-02	U	1.08E-02	3.30E-02	3.53E+01	1.64E+00		
B1 14-15'	101-55-3	SW8270C	11/11/2009	-14	-15	9.70E-03	U	9.74E-03	3.30E-02	3.53E+01	1.64E+00		
B10-1	101-55-3	SW8270C	9/2/2009	-2	-3	4.59E-02	U	4.59E-02	3.30E-01	3.53E+01	1.64E+00		
B10-2	101-55-3	SW8270C	9/2/2009	-13	-14	3.91E-02	U	3.91E-02	3.30E-01	3.53E+01	1.64E+00		
B2 1-1.5	101-55-3	SW8270C	9/1/2009	-1	-1.5	3.64E-02	U	3.64E-02	3.30E-01	3.53E+01	1.64E+00		
B2 21-22.5	101-55-3	SW8270C	9/1/2009	-21	-22.5	4.30E-02	U	4.30E-02	3.30E-01	3.53E+01	1.64E+00		
B3 12-13	101-55-3	SW8270C	8/31/2009	-12	-13	3.46E-02	U	3.46E-02	3.30E-01	3.53E+01	1.64E+00		
B3 2-3	101-55-3	SW8270C	8/31/2009	-2	-3	4.05E-02	U	4.05E-02	3.30E-01	3.53E+01	1.64E+00		
B4 14-14.5	101-55-3	SW8270C	9/1/2009	-14	-14.5	3.88E-02	U	3.88E-02	3.30E-01	3.53E+01	1.64E+00		
B4 2-2.5	101-55-3	SW8270C	9/1/2009	-2	-2.5	4.20E-02	U	4.20E-02	3.30E-01	3.53E+01	1.64E+00		
B5-1	101-55-3	SW8270C	9/2/2009	-1	-1.5	4.13E-02	U	4.13E-02	3.30E-01	3.53E+01	1.64E+00		
B5-2	101-55-3	SW8270C	9/2/2009	-14.5	-15	3.93E-02	U	3.93E-02	3.30E-01	3.53E+01	1.64E+00		
B6-1	101-55-3	SW8270C	9/2/2009	-0.5	-1	3.81E-02	U	3.81E-02	3.30E-01	3.53E+01	1.64E+00		
B6-2	101-55-3	SW8270C	9/2/2009	-14.5	-15	3.93E-02	U	3.93E-02	3.30E-01	3.53E+01	1.64E+00		
B7 0-1'	101-55-3	SW8270C	11/11/2009	0	-1	1.00E-02	U	9.99E-03	3.30E-02	3.53E+01	1.64E+00		
B7 14-15'	101-55-3	SW8270C	11/11/2009	-14	-15	1.03E-02	U	1.03E-02	3.30E-02	3.53E+01	1.64E+00		
B8-1	101-55-3	SW8270C	9/2/2009	-1	-1.5	3.89E-02	U	3.89E-02	3.30E-01	3.53E+01	1.64E+00		
B8-2	101-55-3	SW8270C	9/2/2009	-14	-15	3.78E-02	U	3.78E-02	3.30E-01	3.53E+01	1.64E+00		
B9 0-1'	101-55-3	SW8270C	11/11/2009	0	-1	1.06E-02	U	1.06E-02	3.30E-02	3.53E+01	1.64E+00		
B9 14-15'	101-55-3	SW8270C	11/11/2009	-14	-15	1.03E-02	U	1.03E-02	3.30E-02	3.53E+01	1.64E+00		

4-Bromophenylphenylether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	101-55-3	SW8270C	8/31/2009	0	-1	1.04E-02	U	1.04E-02	3.33E-02	3.53E+01	1.64E+00		
B10-1	101-55-3	SW8270C	9/2/2009	-2	-3	1.24E-02	U	1.24E-02	3.33E-02	3.53E+01	1.64E+00		
B10-2	101-55-3	SW8270C	9/2/2009	-13	-14	1.06E-02	U	1.06E-02	3.33E-02	3.53E+01	1.64E+00		
B2 1-1.5	101-55-3	SW8270C	9/1/2009	-1	-1.5	9.85E-03	U	9.85E-03	3.33E-02	3.53E+01	1.64E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

4-Bromophenylphenylether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 21-22.5	101-55-3	SW8270C	9/1/2009	-21	-22.5	1.17E-02	U	1.17E-02	3.33E-02	3.53E+01	1.64E+00		
B3 12-13	101-55-3	SW8270C	8/31/2009	-12	-13	9.37E-03	U	9.37E-03	3.33E-02	3.53E+01	1.64E+00		
B3 2-3	101-55-3	SW8270C	8/31/2009	-2	-3	1.10E-02	U	1.10E-02	3.33E-02	3.53E+01	1.64E+00		
B4 14-14.5	101-55-3	SW8270C	9/1/2009	-14	-14.5	1.05E-02	U	1.05E-02	3.33E-02	3.53E+01	1.64E+00		
B4 2-2.5	101-55-3	SW8270C	9/1/2009	-2	-2.5	1.14E-02	U	1.14E-02	3.33E-02	3.53E+01	1.64E+00		
B5-1	101-55-3	SW8270C	9/2/2009	-1	-1.5	1.12E-02	U	1.12E-02	3.33E-02	3.53E+01	1.64E+00		
B5-2	101-55-3	SW8270C	9/2/2009	-14.5	-15	1.06E-02	U	1.06E-02	3.33E-02	3.53E+01	1.64E+00		
B6-1	101-55-3	SW8270C	9/2/2009	-0.5	-1	1.03E-02	U	1.03E-02	3.33E-02	3.53E+01	1.64E+00		
B6-2	101-55-3	SW8270C	9/2/2009	-14.5	-15	1.06E-02	U	1.06E-02	3.33E-02	3.53E+01	1.64E+00		
B8-1	101-55-3	SW8270C	9/2/2009	-1	-1.5	1.05E-02	U	1.05E-02	3.33E-02	3.53E+01	1.64E+00		
B8-2	101-55-3	SW8270C	9/2/2009	-14	-15	1.02E-02	U	1.02E-02	3.33E-02	3.53E+01	1.64E+00		

4-Chloro-3-methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	59-50-7	SW8270C	8/31/2009	0	-1	4.66E-02	U	4.66E-02	3.30E-01	5.11E+01	5.11E+03		
B1 0-1'	59-50-7	SW8270C	11/11/2009	0	-1	4.82E-02	U	4.82E-02	3.30E-01	5.11E+01	5.11E+03		
B1 14-15'	59-50-7	SW8270C	11/11/2009	-14	-15	4.34E-02	U	4.34E-02	3.30E-01	5.11E+01	5.11E+03		
B10-1	59-50-7	SW8270C	9/2/2009	-2	-3	5.56E-02	U	5.56E-02	3.30E-01	5.11E+01	5.11E+03		
B10-2	59-50-7	SW8270C	9/2/2009	-13	-14	4.73E-02	U	4.73E-02	3.30E-01	5.11E+01	5.11E+03		
B2 1-1.5	59-50-7	SW8270C	9/1/2009	-1	-1.5	4.41E-02	U	4.41E-02	3.30E-01	5.11E+01	5.11E+03		
B2 21-22.5	59-50-7	SW8270C	9/1/2009	-21	-22.5	5.21E-02	U	5.21E-02	3.30E-01	5.11E+01	5.11E+03		
B3 12-13	59-50-7	SW8270C	8/31/2009	-12	-13	4.19E-02	U	4.19E-02	3.30E-01	5.11E+01	5.11E+03		
B3 2-3	59-50-7	SW8270C	8/31/2009	-2	-3	4.90E-02	U	4.90E-02	3.30E-01	5.11E+01	5.11E+03		
B4 14-14.5	59-50-7	SW8270C	9/1/2009	-14	-14.5	4.71E-02	U	4.71E-02	3.30E-01	5.11E+01	5.11E+03		
B4 2-2.5	59-50-7	SW8270C	9/1/2009	-2	-2.5	5.08E-02	U	5.08E-02	3.30E-01	5.11E+01	5.11E+03		
B5-1	59-50-7	SW8270C	9/2/2009	-1	-1.5	5.00E-02	U	5.00E-02	3.30E-01	5.11E+01	5.11E+03		
B5-2	59-50-7	SW8270C	9/2/2009	-14.5	-15	4.76E-02	U	4.76E-02	3.30E-01	5.11E+01	5.11E+03		
B6-1	59-50-7	SW8270C	9/2/2009	-0.5	-1	4.62E-02	U	4.62E-02	3.30E-01	5.11E+01	5.11E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

4-Chloro-3-methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6-2	59-50-7	SW8270C	9/2/2009	-14.5	-15	4.76E-02	U	4.76E-02	3.30E-01	5.11E+01	5.11E+03		
B7 0-1'	59-50-7	SW8270C	11/11/2009	0	-1	4.45E-02	U	4.45E-02	3.30E-01	5.11E+01	5.11E+03		
B7 14-15'	59-50-7	SW8270C	11/11/2009	-14	-15	4.59E-02	U	4.59E-02	3.30E-01	5.11E+01	5.11E+03		
B8-1	59-50-7	SW8270C	9/2/2009	-1	-1.5	4.71E-02	U	4.71E-02	3.30E-01	5.11E+01	5.11E+03		
B8-2	59-50-7	SW8270C	9/2/2009	-14	-15	4.58E-02	U	4.58E-02	3.30E-01	5.11E+01	5.11E+03		
B9 0-1'	59-50-7	SW8270C	11/11/2009	0	-1	4.70E-02	U	4.70E-02	3.30E-01	5.11E+01	5.11E+03		
B9 14-15'	59-50-7	SW8270C	11/11/2009	-14	-15	4.57E-02	U	4.57E-02	3.30E-01	5.11E+01	5.11E+03		

4-Chloroaniline

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	106-47-8	SW8270C	8/31/2009	0	-1	4.87E-02	U	4.87E-02	3.30E-01	4.09E+01	4.09E+03		
B1 0-1'	106-47-8	SW8270C	11/11/2009	0	-1	5.04E-02	U	5.04E-02	3.30E-01	4.09E+01	4.09E+03		
B1 14-15'	106-47-8	SW8270C	11/11/2009	-14	-15	4.53E-02	U	4.53E-02	3.30E-01	4.09E+01	4.09E+03		
B10-1	106-47-8	SW8270C	9/2/2009	-2	-3	5.81E-02	U	5.81E-02	3.30E-01	4.09E+01	4.09E+03		
B10-2	106-47-8	SW8270C	9/2/2009	-13	-14	4.95E-02	U	4.95E-02	3.30E-01	4.09E+01	4.09E+03		
B2 1-1.5	106-47-8	SW8270C	9/1/2009	-1	-1.5	4.60E-02	U	4.60E-02	3.30E-01	4.09E+01	4.09E+03		
B2 21-22.5	106-47-8	SW8270C	9/1/2009	-21	-22.5	5.45E-02	U	5.45E-02	3.30E-01	4.09E+01	4.09E+03		
B3 12-13	106-47-8	SW8270C	8/31/2009	-12	-13	4.38E-02	U	4.38E-02	3.30E-01	4.09E+01	4.09E+03		
B3 2-3	106-47-8	SW8270C	8/31/2009	-2	-3	5.12E-02	U	5.12E-02	3.30E-01	4.09E+01	4.09E+03		
B4 14-14.5	106-47-8	SW8270C	9/1/2009	-14	-14.5	4.92E-02	U	4.92E-02	3.30E-01	4.09E+01	4.09E+03		
B4 2-2.5	106-47-8	SW8270C	9/1/2009	-2	-2.5	5.31E-02	U	5.31E-02	3.30E-01	4.09E+01	4.09E+03		
B5-1	106-47-8	SW8270C	9/2/2009	-1	-1.5	5.22E-02	U	5.22E-02	3.30E-01	4.09E+01	4.09E+03		
B5-2	106-47-8	SW8270C	9/2/2009	-14.5	-15	4.98E-02	U	4.98E-02	3.30E-01	4.09E+01	4.09E+03		
B6-1	106-47-8	SW8270C	9/2/2009	-0.5	-1	4.83E-02	U	4.83E-02	3.30E-01	4.09E+01	4.09E+03		
B6-2	106-47-8	SW8270C	9/2/2009	-14.5	-15	4.98E-02	U	4.98E-02	3.30E-01	4.09E+01	4.09E+03		
B7 0-1'	106-47-8	SW8270C	11/11/2009	0	-1	4.65E-02	U	4.65E-02	3.30E-01	4.09E+01	4.09E+03		
B7 14-15'	106-47-8	SW8270C	11/11/2009	-14	-15	4.79E-02	U	4.79E-02	3.30E-01	4.09E+01	4.09E+03		
B8-1	106-47-8	SW8270C	9/2/2009	-1	-1.5	4.92E-02	U	4.92E-02	3.30E-01	4.09E+01	4.09E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

4-Chloroaniline

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8-2	106-47-8	SW8270C	9/2/2009	-14	-15	4.79E-02	U	4.79E-02	3.30E-01	4.09E+01	4.09E+03		
B9 0-1'	106-47-8	SW8270C	11/11/2009	0	-1	4.91E-02	U	4.91E-02	3.30E-01	4.09E+01	4.09E+03		
B9 14-15'	106-47-8	SW8270C	11/11/2009	-14	-15	4.77E-02	U	4.77E-02	3.30E-01	4.09E+01	4.09E+03		

4-Chlorophenyl phenyl ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7005-72-3	SW8270C	8/31/2009	0	-1	2.78E-02	U	2.78E-02	3.30E-01	1.00E-01	1.17E+00		
B1 0-1'	7005-72-3	SW8270C	11/11/2009	0	-1	6.10E-03	U	6.13E-03	3.30E-02	1.00E-01	1.17E+00		
B1 14-15'	7005-72-3	SW8270C	11/11/2009	-14	-15	5.50E-03	U	5.52E-03	3.30E-02	1.00E-01	1.17E+00		
B10-1	7005-72-3	SW8270C	9/2/2009	-2	-3	3.31E-02	U	3.31E-02	3.30E-01	1.00E-01	1.17E+00		
B10-2	7005-72-3	SW8270C	9/2/2009	-13	-14	2.82E-02	U	2.82E-02	3.30E-01	1.00E-01	1.17E+00		
B2 1-1.5	7005-72-3	SW8270C	9/1/2009	-1	-1.5	2.63E-02	U	2.63E-02	3.30E-01	1.00E-01	1.17E+00		
B2 21-22.5	7005-72-3	SW8270C	9/1/2009	-21	-22.5	3.11E-02	U	3.11E-02	3.30E-01	1.00E-01	1.17E+00		
B3 12-13	7005-72-3	SW8270C	8/31/2009	-12	-13	2.50E-02	U	2.50E-02	3.30E-01	1.00E-01	1.17E+00		
B3 2-3	7005-72-3	SW8270C	8/31/2009	-2	-3	2.92E-02	U	2.92E-02	3.30E-01	1.00E-01	1.17E+00		
B4 14-14.5	7005-72-3	SW8270C	9/1/2009	-14	-14.5	2.81E-02	U	2.81E-02	3.30E-01	1.00E-01	1.17E+00		
B4 2-2.5	7005-72-3	SW8270C	9/1/2009	-2	-2.5	3.03E-02	U	3.03E-02	3.30E-01	1.00E-01	1.17E+00		
B5-1	7005-72-3	SW8270C	9/2/2009	-1	-1.5	2.98E-02	U	2.98E-02	3.30E-01	1.00E-01	1.17E+00		
B5-2	7005-72-3	SW8270C	9/2/2009	-14.5	-15	2.84E-02	U	2.84E-02	3.30E-01	1.00E-01	1.17E+00		
B6-1	7005-72-3	SW8270C	9/2/2009	-0.5	-1	2.75E-02	U	2.75E-02	3.30E-01	1.00E-01	1.17E+00		
B6-2	7005-72-3	SW8270C	9/2/2009	-14.5	-15	2.84E-02	U	2.84E-02	3.30E-01	1.00E-01	1.17E+00		
B7 0-1'	7005-72-3	SW8270C	11/11/2009	0	-1	5.70E-03	U	5.66E-03	3.30E-02	1.00E-01	1.17E+00		
B7 14-15'	7005-72-3	SW8270C	11/11/2009	-14	-15	5.80E-03	U	5.84E-03	3.30E-02	1.00E-01	1.17E+00		
B8-1	7005-72-3	SW8270C	9/2/2009	-1	-1.5	2.81E-02	U	2.81E-02	3.30E-01	1.00E-01	1.17E+00		
B8-2	7005-72-3	SW8270C	9/2/2009	-14	-15	2.73E-02	U	2.73E-02	3.30E-01	1.00E-01	1.17E+00		
B9 0-1'	7005-72-3	SW8270C	11/11/2009	0	-1	6.00E-03	U	5.98E-03	3.30E-02	1.00E-01	1.17E+00		
B9 14-15'	7005-72-3	SW8270C	11/11/2009	-14	-15	5.80E-03	U	5.81E-03	3.30E-02	1.00E-01	1.17E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

4-Chlorophenylphenylether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7005-72-3	SW8270C	8/31/2009	0	-1	5.87E-03	U	5.87E-03	3.33E-02	1.00E-01	1.17E+00		
B10-1	7005-72-3	SW8270C	9/2/2009	-2	-3	7.00E-03	U	7.00E-03	3.33E-02	1.00E-01	1.17E+00		
B10-2	7005-72-3	SW8270C	9/2/2009	-13	-14	5.96E-03	U	5.96E-03	3.33E-02	1.00E-01	1.17E+00		
B2 1-1.5	7005-72-3	SW8270C	9/1/2009	-1	-1.5	5.55E-03	U	5.55E-03	3.33E-02	1.00E-01	1.17E+00		
B2 21-22.5	7005-72-3	SW8270C	9/1/2009	-21	-22.5	6.57E-03	U	6.57E-03	3.33E-02	1.00E-01	1.17E+00		
B3 12-13	7005-72-3	SW8270C	8/31/2009	-12	-13	5.28E-03	U	5.28E-03	3.33E-02	1.00E-01	1.17E+00		
B3 2-3	7005-72-3	SW8270C	8/31/2009	-2	-3	6.17E-03	U	6.17E-03	3.33E-02	1.00E-01	1.17E+00		
B4 14-14.5	7005-72-3	SW8270C	9/1/2009	-14	-14.5	5.93E-03	U	5.93E-03	3.33E-02	1.00E-01	1.17E+00		
B4 2-2.5	7005-72-3	SW8270C	9/1/2009	-2	-2.5	6.40E-03	U	6.40E-03	3.33E-02	1.00E-01	1.17E+00		
B5-1	7005-72-3	SW8270C	9/2/2009	-1	-1.5	6.30E-03	U	6.30E-03	3.33E-02	1.00E-01	1.17E+00		
B5-2	7005-72-3	SW8270C	9/2/2009	-14.5	-15	6.00E-03	U	6.00E-03	3.33E-02	1.00E-01	1.17E+00		
B6-1	7005-72-3	SW8270C	9/2/2009	-0.5	-1	5.82E-03	U	5.82E-03	3.33E-02	1.00E-01	1.17E+00		
B6-2	7005-72-3	SW8270C	9/2/2009	-14.5	-15	6.00E-03	U	6.00E-03	3.33E-02	1.00E-01	1.17E+00		
B8-1	7005-72-3	SW8270C	9/2/2009	-1	-1.5	5.93E-03	U	5.93E-03	3.33E-02	1.00E-01	1.17E+00		
B8-2	7005-72-3	SW8270C	9/2/2009	-14	-15	5.77E-03	U	5.77E-03	3.33E-02	1.00E-01	1.17E+00		

4-Chlorotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	106-43-4	SW8260B	8/31/2009	0	-1	9.78E-04	U	9.78E-04	5.00E-03	2.04E+02	4.82E+00		
B1 0-1'	106-43-4	SW8260B	11/11/2009	0	-1	1.45E-03	U	1.45E-03	5.00E-03	2.04E+02	4.82E+00		
B1 14-15'	106-43-4	SW8260B	11/11/2009	-14	-15	1.07E-03	U	1.07E-03	5.00E-03	2.04E+02	4.82E+00		
B10-1	106-43-4	SW8260B	9/2/2009	-2	-3	1.17E-03	U	1.17E-03	5.00E-03	2.04E+02	4.82E+00		
B10-2	106-43-4	SW8260B	9/2/2009	-13	-14	9.93E-04	U	9.93E-04	5.00E-03	2.04E+02	4.82E+00		
B2 1-1.5	106-43-4	SW8260B	9/1/2009	-1	-1.5	9.24E-04	U	9.24E-04	5.00E-03	2.04E+02	4.82E+00		
B2 21-22.5	106-43-4	SW8260B	9/1/2009	-21	-22.5	1.09E-03	U	1.09E-03	5.00E-03	2.04E+02	4.82E+00		
B3 12-13	106-43-4	SW8260B	8/31/2009	-12	-13	8.79E-04	U	8.79E-04	5.00E-03	2.04E+02	4.82E+00		
B3 2-3	106-43-4	SW8260B	8/31/2009	-2	-3	1.03E-03	U	1.03E-03	5.00E-03	2.04E+02	4.82E+00		
B4 14.5-15	106-43-4	SW8260B	9/1/2009	-14.5	-15	9.99E-04	U	9.99E-04	5.00E-03	2.04E+02	4.82E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

4-Chlorotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 2-2.5	106-43-4	SW8260B	9/1/2009	-2	-2.5	1.07E-03	U	1.07E-03	5.00E-03	2.04E+02	4.82E+00		
B5-1	106-43-4	SW8260B	9/2/2009	-1	-1.5	1.05E-03	U	1.05E-03	5.00E-03	2.04E+02	4.82E+00		
B5-2	106-43-4	SW8260B	9/2/2009	-14.5	-15	9.99E-04	U	9.99E-04	5.00E-03	2.04E+02	4.82E+00		
B6-1	106-43-4	SW8260B	9/2/2009	-0.5	-1	9.69E-04	U	9.69E-04	5.00E-03	2.04E+02	4.82E+00		
B6-2	106-43-4	SW8260B	9/2/2009	-14.5	-15	9.99E-04	U	9.99E-04	5.00E-03	2.04E+02	4.82E+00		
B7 0-1'	106-43-4	SW8260B	11/11/2009	0	-1	1.15E-03	U	1.15E-03	5.00E-03	2.04E+02	4.82E+00		
B7 14-15'	106-43-4	SW8260B	11/11/2009	-14	-15	1.26E-03	U	1.26E-03	5.00E-03	2.04E+02	4.82E+00		
B8-1	106-43-4	SW8260B	9/2/2009	-1	-1.5	9.88E-04	U	9.88E-04	5.00E-03	2.04E+02	4.82E+00		
B8-2	106-43-4	SW8260B	9/2/2009	-14	-15	9.61E-04	U	9.61E-04	5.00E-03	2.04E+02	4.82E+00		
B8-3	106-43-4	SW8260B	9/2/2009	-8	-8.5	1.04E-03	U	1.04E-03	5.00E-03	2.04E+02	4.82E+00		
B9 0-1'	106-43-4	SW8260B	11/11/2009	0	-1	1.36E-03	U	1.36E-03	5.00E-03	2.04E+02	4.82E+00		
B9 14-15'	106-43-4	SW8260B	11/11/2009	-14	-15	1.24E-03	U	1.24E-03	5.00E-03	2.04E+02	4.82E+00		

4-Isopropyltoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	99-87-6	SW8260B	8/31/2009	0	-1	2.58E-03	U	2.58E-03	5.00E-03	1.02E+03	6.72E+03		
B1 0-1'	99-87-6	SW8260B	11/11/2009	0	-1	3.86E-03	U	3.86E-03	5.00E-03	1.02E+03	6.72E+03		
B1 14-15'	99-87-6	SW8260B	11/11/2009	-14	-15	2.81E-03	U	2.81E-03	5.00E-03	1.02E+03	6.72E+03		
B10-1	99-87-6	SW8260B	9/2/2009	-2	-3	3.08E-03	U	3.08E-03	5.00E-03	1.02E+03	6.72E+03		
B10-2	99-87-6	SW8260B	9/2/2009	-13	-14	2.62E-03	U	2.62E-03	5.00E-03	1.02E+03	6.72E+03		
B2 1-1.5	99-87-6	SW8260B	9/1/2009	-1	-1.5	2.44E-03	U	2.44E-03	5.00E-03	1.02E+03	6.72E+03		
B2 21-22.5	99-87-6	SW8260B	9/1/2009	-21	-22.5	2.89E-03	U	2.89E-03	5.00E-03	1.02E+03	6.72E+03		
B3 12-13	99-87-6	SW8260B	8/31/2009	-12	-13	2.32E-03	U	2.32E-03	5.00E-03	1.02E+03	6.72E+03		
B3 2-3	99-87-6	SW8260B	8/31/2009	-2	-3	2.71E-03	U	2.71E-03	5.00E-03	1.02E+03	6.72E+03		
B4 14.5-15	99-87-6	SW8260B	9/1/2009	-14.5	-15	2.64E-03	U	2.64E-03	5.00E-03	1.02E+03	6.72E+03		
B4 2-2.5	99-87-6	SW8260B	9/1/2009	-2	-2.5	2.81E-03	U	2.81E-03	5.00E-03	1.02E+03	6.72E+03		
B5-1	99-87-6	SW8260B	9/2/2009	-1	-1.5	2.77E-03	U	2.77E-03	5.00E-03	1.02E+03	6.72E+03		
B5-2	99-87-6	SW8260B	9/2/2009	-14.5	-15	2.64E-03	U	2.64E-03	5.00E-03	1.02E+03	6.72E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

4-Isopropyltoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6-1	99-87-6	SW8260B	9/2/2009	-0.5	-1	2.56E-03	U	2.56E-03	5.00E-03	1.02E+03	6.72E+03		
B6-2	99-87-6	SW8260B	9/2/2009	-14.5	-15	2.64E-03	U	2.64E-03	5.00E-03	1.02E+03	6.72E+03		
B7 0-1'	99-87-6	SW8260B	11/11/2009	0	-1	3.03E-03	U	3.03E-03	5.00E-03	1.02E+03	6.72E+03		
B7 14-15'	99-87-6	SW8260B	11/11/2009	-14	-15	3.33E-03	U	3.33E-03	5.00E-03	1.02E+03	6.72E+03		
B8-1	99-87-6	SW8260B	9/2/2009	-1	-1.5	2.61E-03	U	2.61E-03	5.00E-03	1.02E+03	6.72E+03		
B8-2	99-87-6	SW8260B	9/2/2009	-14	-15	2.54E-03	U	2.54E-03	5.00E-03	1.02E+03	6.72E+03		
B8-3	99-87-6	SW8260B	9/2/2009	-8	-8.5	2.75E-03	U	2.75E-03	5.00E-03	1.02E+03	6.72E+03		
B9 0-1'	99-87-6	SW8260B	11/11/2009	0	-1	3.58E-03	U	3.58E-03	5.00E-03	1.02E+03	6.72E+03		
B9 14-15'	99-87-6	SW8260B	11/11/2009	-14	-15	3.28E-03	U	3.28E-03	5.00E-03	1.02E+03	6.72E+03		

4-Methyl-2-pentanone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	108-10-1	SW8260B	8/31/2009	0	-1	1.66E-03	U	1.66E-03	1.00E-02	8.18E+02	3.46E+04		
B1 0-1'	108-10-1	SW8260B	11/11/2009	0	-1	2.49E-03	U	2.49E-03	1.00E-02	8.18E+02	3.46E+04		
B1 14-15'	108-10-1	SW8260B	11/11/2009	-14	-15	1.82E-03	U	1.82E-03	1.00E-02	8.18E+02	3.46E+04		
B10-1	108-10-1	SW8260B	9/2/2009	-2	-3	1.98E-03	U	1.98E-03	1.00E-02	8.18E+02	3.46E+04		
B10-2	108-10-1	SW8260B	9/2/2009	-13	-14	1.69E-03	U	1.69E-03	1.00E-02	8.18E+02	3.46E+04		
B2 1-1.5	108-10-1	SW8260B	9/1/2009	-1	-1.5	1.57E-03	U	1.57E-03	1.00E-02	8.18E+02	3.46E+04		
B2 21-22.5	108-10-1	SW8260B	9/1/2009	-21	-22.5	1.86E-03	U	1.86E-03	1.00E-02	8.18E+02	3.46E+04		
B3 12-13	108-10-1	SW8260B	8/31/2009	-12	-13	1.50E-03	U	1.50E-03	1.00E-02	8.18E+02	3.46E+04		
B3 2-3	108-10-1	SW8260B	8/31/2009	-2	-3	1.75E-03	U	1.75E-03	1.00E-02	8.18E+02	3.46E+04		
B4 14.5-15	108-10-1	SW8260B	9/1/2009	-14.5	-15	1.70E-03	U	1.70E-03	1.00E-02	8.18E+02	3.46E+04		
B4 2-2.5	108-10-1	SW8260B	9/1/2009	-2	-2.5	1.81E-03	U	1.81E-03	1.00E-02	8.18E+02	3.46E+04		
B5-1	108-10-1	SW8260B	9/2/2009	-1	-1.5	1.78E-03	U	1.78E-03	1.00E-02	8.18E+02	3.46E+04		
B5-2	108-10-1	SW8260B	9/2/2009	-14.5	-15	1.70E-03	U	1.70E-03	1.00E-02	8.18E+02	3.46E+04		
B6-1	108-10-1	SW8260B	9/2/2009	-0.5	-1	1.65E-03	U	1.65E-03	1.00E-02	8.18E+02	3.46E+04		
B6-2	108-10-1	SW8260B	9/2/2009	-14.5	-15	1.70E-03	U	1.70E-03	1.00E-02	8.18E+02	3.46E+04		
B7 0-1'	108-10-1	SW8260B	11/11/2009	0	-1	1.96E-03	U	1.96E-03	1.00E-02	8.18E+02	3.46E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

4-Methyl-2-pentanone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 14-15'	108-10-1	SW8260B	11/11/2009	-14	-15	2.15E-03	U	2.15E-03	1.00E-02	8.18E+02	3.46E+04		
B8-1	108-10-1	SW8260B	9/2/2009	-1	-1.5	1.68E-03	U	1.68E-03	1.00E-02	8.18E+02	3.46E+04		
B8-2	108-10-1	SW8260B	9/2/2009	-14	-15	1.63E-03	U	1.63E-03	1.00E-02	8.18E+02	3.46E+04		
B8-3	108-10-1	SW8260B	9/2/2009	-8	-8.5	1.77E-03	U	1.77E-03	1.00E-02	8.18E+02	3.46E+04		
B9 0-1'	108-10-1	SW8260B	11/11/2009	0	-1	2.31E-03	U	2.31E-03	1.00E-02	8.18E+02	3.46E+04		
B9 14-15'	108-10-1	SW8260B	11/11/2009	-14	-15	2.12E-03	U	2.12E-03	1.00E-02	8.18E+02	3.46E+04		

4-Methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	106-44-5	SW8270C	8/31/2009	0	-1	6.09E-02	U	6.09E-02	3.30E-01	5.11E+01	5.11E+03		
B1 0-1'	106-44-5	SW8270C	11/11/2009	0	-1	6.30E-02	U	6.30E-02	3.30E-01	5.11E+01	5.11E+03		
B1 14-15'	106-44-5	SW8270C	11/11/2009	-14	-15	5.67E-02	U	5.67E-02	3.30E-01	5.11E+01	5.11E+03		
B10-1	106-44-5	SW8270C	9/2/2009	-2	-3	7.27E-02	U	7.27E-02	3.30E-01	5.11E+01	5.11E+03		
B10-2	106-44-5	SW8270C	9/2/2009	-13	-14	6.19E-02	U	6.19E-02	3.30E-01	5.11E+01	5.11E+03		
B2 1-1.5	106-44-5	SW8270C	9/1/2009	-1	-1.5	5.76E-02	U	5.76E-02	3.30E-01	5.11E+01	5.11E+03		
B2 21-22.5	106-44-5	SW8270C	9/1/2009	-21	-22.5	6.81E-02	U	6.81E-02	3.30E-01	5.11E+01	5.11E+03		
B3 12-13	106-44-5	SW8270C	8/31/2009	-12	-13	5.48E-02	U	5.48E-02	3.30E-01	5.11E+01	5.11E+03		
B3 2-3	106-44-5	SW8270C	8/31/2009	-2	-3	6.41E-02	U	6.41E-02	3.30E-01	5.11E+01	5.11E+03		
B4 14-14.5	106-44-5	SW8270C	9/1/2009	-14	-14.5	6.15E-02	U	6.15E-02	3.30E-01	5.11E+01	5.11E+03		
B4 2-2.5	106-44-5	SW8270C	9/1/2009	-2	-2.5	6.64E-02	U	6.64E-02	3.30E-01	5.11E+01	5.11E+03		
B5-1	106-44-5	SW8270C	9/2/2009	-1	-1.5	6.53E-02	U	6.53E-02	3.30E-01	5.11E+01	5.11E+03		
B5-2	106-44-5	SW8270C	9/2/2009	-14.5	-15	6.22E-02	U	6.22E-02	3.30E-01	5.11E+01	5.11E+03		
B6-1	106-44-5	SW8270C	9/2/2009	-0.5	-1	6.04E-02	U	6.04E-02	3.30E-01	5.11E+01	5.11E+03		
B6-2	106-44-5	SW8270C	9/2/2009	-14.5	-15	6.22E-02	U	6.22E-02	3.30E-01	5.11E+01	5.11E+03		
B7 0-1'	106-44-5	SW8270C	11/11/2009	0	-1	5.82E-02	U	5.82E-02	3.30E-01	5.11E+01	5.11E+03		
B7 14-15'	106-44-5	SW8270C	11/11/2009	-14	-15	6.00E-02	U	6.00E-02	3.30E-01	5.11E+01	5.11E+03		
B8-1	106-44-5	SW8270C	9/2/2009	-1	-1.5	6.16E-02	U	6.16E-02	3.30E-01	5.11E+01	5.11E+03		
B8-2	106-44-5	SW8270C	9/2/2009	-14	-15	5.99E-02	U	5.99E-02	3.30E-01	5.11E+01	5.11E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

4-Methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B9 0-1'	106-44-5	SW8270C	11/11/2009	0	-1	6.14E-02	U	6.14E-02	3.30E-01	5.11E+01	5.11E+03		
B9 14-15'	106-44-5	SW8270C	11/11/2009	-14	-15	5.97E-02	U	5.97E-02	3.30E-01	5.11E+01	5.11E+03		

4-Nitroaniline

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	100-01-6	SW8270C	8/31/2009	0	-1	1.35E-01	U	1.35E-01	3.30E-01	7.53E+00	7.53E+02		
B1 0-1'	100-01-6	SW8270C	11/11/2009	0	-1	1.39E-01	U	1.39E-01	3.30E-01	7.53E+00	7.53E+02		
B1 14-15'	100-01-6	SW8270C	11/11/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	7.53E+00	7.53E+02		
B10-1	100-01-6	SW8270C	9/2/2009	-2	-3	1.61E-01	U	1.61E-01	3.30E-01	7.53E+00	7.53E+02		
B10-2	100-01-6	SW8270C	9/2/2009	-13	-14	1.37E-01	U	1.37E-01	3.30E-01	7.53E+00	7.53E+02		
B2 1-1.5	100-01-6	SW8270C	9/1/2009	-1	-1.5	1.28E-01	U	1.27E-01	3.30E-01	7.53E+00	7.53E+02		
B2 21-22.5	100-01-6	SW8270C	9/1/2009	-21	-22.5	1.51E-01	U	1.51E-01	3.30E-01	7.53E+00	7.53E+02		
B3 12-13	100-01-6	SW8270C	8/31/2009	-12	-13	1.21E-01	U	1.21E-01	3.30E-01	7.53E+00	7.53E+02		
B3 2-3	100-01-6	SW8270C	8/31/2009	-2	-3	1.42E-01	U	1.42E-01	3.30E-01	7.53E+00	7.53E+02		
B4 14-14.5	100-01-6	SW8270C	9/1/2009	-14	-14.5	1.36E-01	U	1.36E-01	3.30E-01	7.53E+00	7.53E+02		
B4 2-2.5	100-01-6	SW8270C	9/1/2009	-2	-2.5	1.47E-01	U	1.47E-01	3.30E-01	7.53E+00	7.53E+02		
B5-1	100-01-6	SW8270C	9/2/2009	-1	-1.5	1.45E-01	U	1.45E-01	3.30E-01	7.53E+00	7.53E+02		
B5-2	100-01-6	SW8270C	9/2/2009	-14.5	-15	1.38E-01	U	1.38E-01	3.30E-01	7.53E+00	7.53E+02		
B6-1	100-01-6	SW8270C	9/2/2009	-0.5	-1	1.34E-01	U	1.34E-01	3.30E-01	7.53E+00	7.53E+02		
B6-2	100-01-6	SW8270C	9/2/2009	-14.5	-15	1.38E-01	U	1.38E-01	3.30E-01	7.53E+00	7.53E+02		
B7 0-1'	100-01-6	SW8270C	11/11/2009	0	-1	1.29E-01	U	1.29E-01	3.30E-01	7.53E+00	7.53E+02		
B7 14-15'	100-01-6	SW8270C	11/11/2009	-14	-15	1.33E-01	U	1.33E-01	3.30E-01	7.53E+00	7.53E+02		
B8-1	100-01-6	SW8270C	9/2/2009	-1	-1.5	1.36E-01	U	1.36E-01	3.30E-01	7.53E+00	7.53E+02		
B8-2	100-01-6	SW8270C	9/2/2009	-14	-15	1.33E-01	U	1.33E-01	3.30E-01	7.53E+00	7.53E+02		
B9 0-1'	100-01-6	SW8270C	11/11/2009	0	-1	1.36E-01	U	1.36E-01	3.30E-01	7.53E+00	7.53E+02		
B9 14-15'	100-01-6	SW8270C	11/11/2009	-14	-15	1.32E-01	U	1.32E-01	3.30E-01	7.53E+00	7.53E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

4-Nitrophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	100-02-7	SW8270C	8/31/2009	0	-1	6.85E-02	U	6.85E-02	3.30E-01	2.04E+01	2.04E+03		
B1 0-1'	100-02-7	SW8270C	11/11/2009	0	-1	7.08E-02	U	7.08E-02	3.30E-01	2.04E+01	2.04E+03		
B1 14-15'	100-02-7	SW8270C	11/11/2009	-14	-15	6.37E-02	U	6.37E-02	3.30E-01	2.04E+01	2.04E+03		
B10-1	100-02-7	SW8270C	9/2/2009	-2	-3	8.17E-02	U	8.17E-02	3.30E-01	2.04E+01	2.04E+03		
B10-2	100-02-7	SW8270C	9/2/2009	-13	-14	6.95E-02	U	6.95E-02	3.30E-01	2.04E+01	2.04E+03		
B2 1-1.5	100-02-7	SW8270C	9/1/2009	-1	-1.5	6.47E-02	U	6.47E-02	3.30E-01	2.04E+01	2.04E+03		
B2 21-22.5	100-02-7	SW8270C	9/1/2009	-21	-22.5	7.66E-02	U	7.66E-02	3.30E-01	2.04E+01	2.04E+03		
B3 12-13	100-02-7	SW8270C	8/31/2009	-12	-13	6.16E-02	U	6.16E-02	3.30E-01	2.04E+01	2.04E+03		
B3 2-3	100-02-7	SW8270C	8/31/2009	-2	-3	7.20E-02	U	7.20E-02	3.30E-01	2.04E+01	2.04E+03		
B4 14-14.5	100-02-7	SW8270C	9/1/2009	-14	-14.5	6.91E-02	U	6.91E-02	3.30E-01	2.04E+01	2.04E+03		
B4 2-2.5	100-02-7	SW8270C	9/1/2009	-2	-2.5	7.47E-02	U	7.47E-02	3.30E-01	2.04E+01	2.04E+03		
B5-1	100-02-7	SW8270C	9/2/2009	-1	-1.5	7.34E-02	U	7.34E-02	3.30E-01	2.04E+01	2.04E+03		
B5-2	100-02-7	SW8270C	9/2/2009	-14.5	-15	7.00E-02	U	7.00E-02	3.30E-01	2.04E+01	2.04E+03		
B6-1	100-02-7	SW8270C	9/2/2009	-0.5	-1	6.79E-02	U	6.79E-02	3.30E-01	2.04E+01	2.04E+03		
B6-2	100-02-7	SW8270C	9/2/2009	-14.5	-15	7.00E-02	U	7.00E-02	3.30E-01	2.04E+01	2.04E+03		
B7 0-1'	100-02-7	SW8270C	11/11/2009	0	-1	6.54E-02	U	6.54E-02	3.30E-01	2.04E+01	2.04E+03		
B7 14-15'	100-02-7	SW8270C	11/11/2009	-14	-15	6.74E-02	U	6.74E-02	3.30E-01	2.04E+01	2.04E+03		
B8-1	100-02-7	SW8270C	9/2/2009	-1	-1.5	6.92E-02	U	6.92E-02	3.30E-01	2.04E+01	2.04E+03		
B8-2	100-02-7	SW8270C	9/2/2009	-14	-15	6.73E-02	U	6.73E-02	3.30E-01	2.04E+01	2.04E+03		
B9 0-1'	100-02-7	SW8270C	11/11/2009	0	-1	6.91E-02	U	6.91E-02	3.30E-01	2.04E+01	2.04E+03		
B9 14-15'	100-02-7	SW8270C	11/11/2009	-14	-15	6.71E-02	U	6.71E-02	3.30E-01	2.04E+01	2.04E+03		

4-Nitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 1-2 FT	99-99-0	SW-846 8	8/31/2009	-1	-2	7.02E-01	U	7.02E-01	1.00E-01	1.02E+02	7.87E+02		
B1 13-14	99-99-0	SW-846 8	8/31/2009	-13	-14	7.02E-01	U	7.02E-01	1.00E-01	1.02E+02	7.87E+02		
B10 1 - 2	99-99-0	SW-846 8	9/2/2009	-1	-2	8.34E-01	U	8.34E-01	1.00E-01	1.02E+02	7.87E+02		
B10 11.5 - 1	99-99-0	SW-846 8	9/2/2009	-11.5	-12	8.62E-01	U	8.62E-01	1.00E-01	1.02E+02	7.87E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

4-Nitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 0.5-1.0	99-99-0	SW-846 8	9/1/2009	-0.5	-1	7.02E-01	U	7.02E-01	1.00E-01	1.02E+02	7.87E+02		
B2 21-21.5	99-99-0	SW-846 8	9/1/2009	-21	-21.5	7.02E-01	U	7.02E-01	1.00E-01	1.02E+02	7.87E+02		
B3 0-1	99-99-0	SW-846 8	8/31/2009	0	-1	7.02E-01	U	7.02E-01	1.00E-01	1.02E+02	7.87E+02		
B3 14-15	99-99-0	SW-846 8	8/31/2009	-14	-15	7.02E-01	U	7.02E-01	1.00E-01	1.02E+02	7.87E+02		
B4 13-14	99-99-0	SW-846 8	9/1/2009	-13	-14	7.02E-01	U	7.02E-01	1.00E-01	1.02E+02	7.87E+02		
B4 3-3.5	99-99-0	SW-846 8	9/1/2009	-3	-3.5	7.02E-01	U	7.02E-01	1.00E-01	1.02E+02	7.87E+02		
B5 14 - 14.	99-99-0	SW-846 8	9/2/2009	-14	-14.5	8.23E-01	U	8.23E-01	1.00E-01	1.02E+02	7.87E+02		
B5 0.5 - 1 M	99-99-0	SW-846 8	9/2/2009	-0.5	-1	8.57E-01	U	8.57E-01	1.00E-01	1.02E+02	7.87E+02		
B6 1 - 1.5	99-99-0	SW-846 8	9/2/2009	-1	-1.5	8.26E-01	U	8.26E-01	1.00E-01	1.02E+02	7.87E+02		
B6 14 - 14.5	99-99-0	SW-846 8	9/2/2009	-14	-14.5	8.08E-01	U	8.08E-01	1.00E-01	1.02E+02	7.87E+02		
B7 0-1 FT	99-99-0	SW-846 8	8/31/2009	0	-1	7.02E-01	U	7.02E-01	1.00E-01	1.02E+02	7.87E+02		
B7 14-15	99-99-0	SW-846 8	8/31/2009	-14	-15	7.02E-01	U	7.02E-01	1.00E-01	1.02E+02	7.87E+02		
B8 13 - 14	99-99-0	SW-846 8	9/2/2009	-13	-14	7.97E-01	U	7.97E-01	1.00E-01	1.02E+02	7.87E+02		
B8 2.75 - 3	99-99-0	SW-846 8	9/2/2009	-2.75	-3	8.81E-01	U	8.81E-01	1.00E-01	1.02E+02	7.87E+02		
B9 14-15	99-99-0	SW-846 8	8/31/2009	-14	-15	7.02E-01	U	7.02E-01	1.00E-01	1.02E+02	7.87E+02		
B9-0-2 FT	99-99-0	SW-846 8	8/31/2009	0	-2	7.02E-01	U	7.02E-01	1.00E-01	1.02E+02	7.87E+02		

Acenaphthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	83-32-9	SW8270C	8/31/2009	0	-1	1.62E-01	U	1.62E-01	3.30E-01	6.13E+02	4.43E+04		
B1 0-1'	83-32-9	SW8270C	11/11/2009	0	-1	1.67E-01	U	1.67E-01	3.30E-01	6.13E+02	4.43E+04		
B1 14-15'	83-32-9	SW8270C	11/11/2009	-14	-15	1.50E-01	U	1.50E-01	3.30E-01	6.13E+02	4.43E+04		
B10-1	83-32-9	SW8270C	9/2/2009	-2	-3	1.93E-01	U	1.93E-01	3.30E-01	6.13E+02	4.43E+04		
B10-2	83-32-9	SW8270C	9/2/2009	-13	-14	1.64E-01	U	1.64E-01	3.30E-01	6.13E+02	4.43E+04		
B2 1-1.5	83-32-9	SW8270C	9/1/2009	-1	-1.5	1.53E-01	U	1.53E-01	3.30E-01	6.13E+02	4.43E+04		
B2 21-22.5	83-32-9	SW8270C	9/1/2009	-21	-22.5	1.81E-01	U	1.81E-01	3.30E-01	6.13E+02	4.43E+04		
B3 12-13	83-32-9	SW8270C	8/31/2009	-12	-13	1.45E-01	U	1.45E-01	3.30E-01	6.13E+02	4.43E+04		
B3 2-3	83-32-9	SW8270C	8/31/2009	-2	-3	1.70E-01	U	1.70E-01	3.30E-01	6.13E+02	4.43E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Acenaphthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 14-14.5	83-32-9	SW8270C	9/1/2009	-14	-14.5	1.63E-01	U	1.63E-01	3.30E-01	6.13E+02	4.43E+04		
B4 2-2.5	83-32-9	SW8270C	9/1/2009	-2	-2.5	1.76E-01	U	1.76E-01	3.30E-01	6.13E+02	4.43E+04		
B5-1	83-32-9	SW8270C	9/2/2009	-1	-1.5	1.73E-01	U	1.73E-01	3.30E-01	6.13E+02	4.43E+04		
B5-2	83-32-9	SW8270C	9/2/2009	-14.5	-15	1.65E-01	U	1.65E-01	3.30E-01	6.13E+02	4.43E+04		
B6-1	83-32-9	SW8270C	9/2/2009	-0.5	-1	1.60E-01	U	1.60E-01	3.30E-01	6.13E+02	4.43E+04		
B6-2	83-32-9	SW8270C	9/2/2009	-14.5	-15	1.65E-01	U	1.65E-01	3.30E-01	6.13E+02	4.43E+04		
B7 0-1'	83-32-9	SW8270C	11/11/2009	0	-1	1.54E-01	U	1.54E-01	3.30E-01	6.13E+02	4.43E+04		
B7 14-15'	83-32-9	SW8270C	11/11/2009	-14	-15	1.59E-01	U	1.59E-01	3.30E-01	6.13E+02	4.43E+04		
B8-1	83-32-9	SW8270C	9/2/2009	-1	-1.5	1.63E-01	U	1.63E-01	3.30E-01	6.13E+02	4.43E+04		
B8-2	83-32-9	SW8270C	9/2/2009	-14	-15	1.59E-01	U	1.59E-01	3.30E-01	6.13E+02	4.43E+04		
B9 0-1'	83-32-9	SW8270C	11/11/2009	0	-1	1.63E-01	U	1.63E-01	3.30E-01	6.13E+02	4.43E+04		
B9 14-15'	83-32-9	SW8270C	11/11/2009	-14	-15	1.58E-01	U	1.58E-01	3.30E-01	6.13E+02	4.43E+04		

Acenaphthylene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	208-96-8	SW8270C	8/31/2009	0	-1	1.41E-01	U	1.41E-01	3.30E-01	6.13E+02	5.33E+04		
B1 0-1'	208-96-8	SW8270C	11/11/2009	0	-1	1.45E-01	U	1.45E-01	3.30E-01	6.13E+02	5.33E+04		
B1 14-15'	208-96-8	SW8270C	11/11/2009	-14	-15	1.31E-01	U	1.31E-01	3.30E-01	6.13E+02	5.33E+04		
B10-1	208-96-8	SW8270C	9/2/2009	-2	-3	1.68E-01	U	1.68E-01	3.30E-01	6.13E+02	5.33E+04		
B10-2	208-96-8	SW8270C	9/2/2009	-13	-14	1.43E-01	U	1.43E-01	3.30E-01	6.13E+02	5.33E+04		
B2 1-1.5	208-96-8	SW8270C	9/1/2009	-1	-1.5	1.33E-01	U	1.33E-01	3.30E-01	6.13E+02	5.33E+04		
B2 21-22.5	208-96-8	SW8270C	9/1/2009	-21	-22.5	1.57E-01	U	1.57E-01	3.30E-01	6.13E+02	5.33E+04		
B3 12-13	208-96-8	SW8270C	8/31/2009	-12	-13	1.27E-01	U	1.27E-01	3.30E-01	6.13E+02	5.33E+04		
B3 2-3	208-96-8	SW8270C	8/31/2009	-2	-3	1.48E-01	U	1.48E-01	3.30E-01	6.13E+02	5.33E+04		
B4 14-14.5	208-96-8	SW8270C	9/1/2009	-14	-14.5	1.42E-01	U	1.42E-01	3.30E-01	6.13E+02	5.33E+04		
B4 2-2.5	208-96-8	SW8270C	9/1/2009	-2	-2.5	1.53E-01	U	1.53E-01	3.30E-01	6.13E+02	5.33E+04		
B5-1	208-96-8	SW8270C	9/2/2009	-1	-1.5	1.51E-01	U	1.51E-01	3.30E-01	6.13E+02	5.33E+04		
B5-2	208-96-8	SW8270C	9/2/2009	-14.5	-15	1.44E-01	U	1.44E-01	3.30E-01	6.13E+02	5.33E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Acenaphthylene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6-1	208-96-8	SW8270C	9/2/2009	-0.5	-1	1.39E-01	U	1.39E-01	3.30E-01	6.13E+02	5.33E+04		
B6-2	208-96-8	SW8270C	9/2/2009	-14.5	-15	1.44E-01	U	1.44E-01	3.30E-01	6.13E+02	5.33E+04		
B7 0-1'	208-96-8	SW8270C	11/11/2009	0	-1	1.34E-01	U	1.34E-01	3.30E-01	6.13E+02	5.33E+04		
B7 14-15'	208-96-8	SW8270C	11/11/2009	-14	-15	1.38E-01	U	1.38E-01	3.30E-01	6.13E+02	5.33E+04		
B8-1	208-96-8	SW8270C	9/2/2009	-1	-1.5	1.42E-01	U	1.42E-01	3.30E-01	6.13E+02	5.33E+04		
B8-2	208-96-8	SW8270C	9/2/2009	-14	-15	1.38E-01	U	1.38E-01	3.30E-01	6.13E+02	5.33E+04		
B9 0-1'	208-96-8	SW8270C	11/11/2009	0	-1	1.42E-01	U	1.42E-01	3.30E-01	6.13E+02	5.33E+04		
B9 14-15'	208-96-8	SW8270C	11/11/2009	-14	-15	1.38E-01	U	1.38E-01	3.30E-01	6.13E+02	5.33E+04		

Acetone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	67-64-1	SW8260B	8/31/2009	0	-1	1.33E-03	U	1.33E-03	1.00E-02	9.20E+03	2.45E+03		
B1 0-1'	67-64-1	SW8260B	11/11/2009	0	-1	1.98E-03	U	1.98E-03	1.00E-02	9.20E+03	2.45E+03		
B1 14-15'	67-64-1	SW8260B	11/11/2009	-14	-15	1.44E-03	U	1.44E-03	1.00E-02	9.20E+03	2.45E+03		
B10-1	67-64-1	SW8260B	9/2/2009	-2	-3	1.58E-03	U	1.58E-03	1.00E-02	9.20E+03	2.45E+03		
B10-2	67-64-1	SW8260B	9/2/2009	-13	-14	1.35E-03	U	1.35E-03	1.00E-02	9.20E+03	2.45E+03		
B2 1-1.5	67-64-1	SW8260B	9/1/2009	-1	-1.5	1.25E-03	U	1.25E-03	1.00E-02	9.20E+03	2.45E+03		
B2 21-22.5	67-64-1	SW8260B	9/1/2009	-21	-22.5	1.48E-03	U	1.48E-03	1.00E-02	9.20E+03	2.45E+03		
B3 12-13	67-64-1	SW8260B	8/31/2009	-12	-13	1.19E-03	U	1.19E-03	1.00E-02	9.20E+03	2.45E+03		
B3 2-3	67-64-1	SW8260B	8/31/2009	-2	-3	1.39E-03	U	1.39E-03	1.00E-02	9.20E+03	2.45E+03		
B4 14.5-15	67-64-1	SW8260B	9/1/2009	-14.5	-15	1.35E-03	U	1.35E-03	1.00E-02	9.20E+03	2.45E+03		
B4 2-2.5	67-64-1	SW8260B	9/1/2009	-2	-2.5	1.44E-03	U	1.44E-03	1.00E-02	9.20E+03	2.45E+03		
B5-1	67-64-1	SW8260B	9/2/2009	-1	-1.5	1.42E-03	U	1.42E-03	1.00E-02	9.20E+03	2.45E+03		
B5-2	67-64-1	SW8260B	9/2/2009	-14.5	-15	1.35E-03	U	1.35E-03	1.00E-02	9.20E+03	2.45E+03		
B6-1	67-64-1	SW8260B	9/2/2009	-0.5	-1	1.31E-03	U	1.31E-03	1.00E-02	9.20E+03	2.45E+03		
B6-2	67-64-1	SW8260B	9/2/2009	-14.5	-15	1.35E-03	U	1.35E-03	1.00E-02	9.20E+03	2.45E+03		
B7 0-1'	67-64-1	SW8260B	11/11/2009	0	-1	1.57E-03	U	1.57E-03	1.00E-02	9.20E+03	2.45E+03		
B7 14-15'	67-64-1	SW8260B	11/11/2009	-14	-15	1.70E-03	U	1.70E-03	1.00E-02	9.20E+03	2.45E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Acetone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8-1	67-64-1	SW8260B	9/2/2009	-1	-1.5	1.34E-03	U	1.34E-03	1.00E-02	9.20E+03	2.45E+03		
B8-2	67-64-1	SW8260B	9/2/2009	-14	-15	1.30E-03	U	1.30E-03	1.00E-02	9.20E+03	2.45E+03		
B8-3	67-64-1	SW8260B	9/2/2009	-8	-8.5	1.41E-03	U	1.41E-03	1.00E-02	9.20E+03	2.45E+03		
B9 0-1'	67-64-1	SW8260B	11/11/2009	0	-1	1.84E-03	U	1.84E-03	1.00E-02	9.20E+03	2.45E+03		
B9 14-15'	67-64-1	SW8260B	11/11/2009	-14	-15	1.69E-03	U	1.69E-03	1.00E-02	9.20E+03	2.45E+03		

Acetophenone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	98-86-2	SW8270C	8/31/2009	0	-1	1.69E-01	U	1.69E-01	3.30E-01	1.02E+03	4.33E+03		
B1 0-1'	98-86-2	SW8270C	11/11/2009	0	-1	1.74E-01	U	1.74E-01	3.30E-01	1.02E+03	4.33E+03		
B1 14-15'	98-86-2	SW8270C	11/11/2009	-14	-15	1.57E-01	U	1.57E-01	3.30E-01	1.02E+03	4.33E+03		
B10-1	98-86-2	SW8270C	9/2/2009	-2	-3	2.01E-01	U	2.01E-01	3.30E-01	1.02E+03	4.33E+03		
B10-2	98-86-2	SW8270C	9/2/2009	-13	-14	1.71E-01	U	1.71E-01	3.30E-01	1.02E+03	4.33E+03		
B2 1-1.5	98-86-2	SW8270C	9/1/2009	-1	-1.5	1.59E-01	U	1.59E-01	3.30E-01	1.02E+03	4.33E+03		
B2 21-22.5	98-86-2	SW8270C	9/1/2009	-21	-22.5	1.89E-01	U	1.89E-01	3.30E-01	1.02E+03	4.33E+03		
B3 12-13	98-86-2	SW8270C	8/31/2009	-12	-13	1.52E-01	U	1.52E-01	3.30E-01	1.02E+03	4.33E+03		
B3 2-3	98-86-2	SW8270C	8/31/2009	-2	-3	1.77E-01	U	1.77E-01	3.30E-01	1.02E+03	4.33E+03		
B4 14-14.5	98-86-2	SW8270C	9/1/2009	-14	-14.5	1.70E-01	U	1.70E-01	3.30E-01	1.02E+03	4.33E+03		
B4 2-2.5	98-86-2	SW8270C	9/1/2009	-2	-2.5	1.84E-01	U	1.84E-01	3.30E-01	1.02E+03	4.33E+03		
B5-1	98-86-2	SW8270C	9/2/2009	-1	-1.5	1.81E-01	U	1.81E-01	3.30E-01	1.02E+03	4.33E+03		
B5-2	98-86-2	SW8270C	9/2/2009	-14.5	-15	1.72E-01	U	1.72E-01	3.30E-01	1.02E+03	4.33E+03		
B6-1	98-86-2	SW8270C	9/2/2009	-0.5	-1	1.67E-01	U	1.67E-01	3.30E-01	1.02E+03	4.33E+03		
B6-2	98-86-2	SW8270C	9/2/2009	-14.5	-15	1.72E-01	U	1.72E-01	3.30E-01	1.02E+03	4.33E+03		
B7 0-1'	98-86-2	SW8270C	11/11/2009	0	-1	1.61E-01	U	1.61E-01	3.30E-01	1.02E+03	4.33E+03		
B7 14-15'	98-86-2	SW8270C	11/11/2009	-14	-15	1.66E-01	U	1.66E-01	3.30E-01	1.02E+03	4.33E+03		
B8-1	98-86-2	SW8270C	9/2/2009	-1	-1.5	1.70E-01	U	1.70E-01	3.30E-01	1.02E+03	4.33E+03		
B8-2	98-86-2	SW8270C	9/2/2009	-14	-15	1.66E-01	U	1.66E-01	3.30E-01	1.02E+03	4.33E+03		
B9 0-1'	98-86-2	SW8270C	11/11/2009	0	-1	1.70E-01	U	1.70E-01	3.30E-01	1.02E+03	4.33E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Acetophenone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B9 14-15'	98-86-2	SW8270C	11/11/2009	-14	-15	1.65E-01	U	1.65E-01	3.30E-01	1.02E+03	4.33E+03		

Allyl chloride

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	107-05-1	SW8260B	8/31/2009	0	-1	2.80E-03	U	2.80E-03	5.00E-03	1.02E+02	1.79E+00		
B1 0-1'	107-05-1	SW8260B	11/11/2009	0	-1	4.19E-03	U	4.19E-03	5.00E-03	1.02E+02	1.79E+00		
B1 14-15'	107-05-1	SW8260B	11/11/2009	-14	-15	3.05E-03	U	3.05E-03	5.00E-03	1.02E+02	1.79E+00		
B10-1	107-05-1	SW8260B	9/2/2009	-2	-3	3.34E-03	U	3.34E-03	5.00E-03	1.02E+02	1.79E+00		
B10-2	107-05-1	SW8260B	9/2/2009	-13	-14	2.85E-03	U	2.85E-03	5.00E-03	1.02E+02	1.79E+00		
B2 1-1.5	107-05-1	SW8260B	9/1/2009	-1	-1.5	2.65E-03	U	2.65E-03	5.00E-03	1.02E+02	1.79E+00		
B2 21-22.5	107-05-1	SW8260B	9/1/2009	-21	-22.5	3.13E-03	U	3.13E-03	5.00E-03	1.02E+02	1.79E+00		
B3 12-13	107-05-1	SW8260B	8/31/2009	-12	-13	2.52E-03	U	2.52E-03	5.00E-03	1.02E+02	1.79E+00		
B3 2-3	107-05-1	SW8260B	8/31/2009	-2	-3	2.95E-03	U	2.95E-03	5.00E-03	1.02E+02	1.79E+00		
B4 14.5-15	107-05-1	SW8260B	9/1/2009	-14.5	-15	2.86E-03	U	2.86E-03	5.00E-03	1.02E+02	1.79E+00		
B4 2-2.5	107-05-1	SW8260B	9/1/2009	-2	-2.5	3.05E-03	U	3.05E-03	5.00E-03	1.02E+02	1.79E+00		
B5-1	107-05-1	SW8260B	9/2/2009	-1	-1.5	3.00E-03	U	3.00E-03	5.00E-03	1.02E+02	1.79E+00		
B5-2	107-05-1	SW8260B	9/2/2009	-14.5	-15	2.86E-03	U	2.86E-03	5.00E-03	1.02E+02	1.79E+00		
B6-1	107-05-1	SW8260B	9/2/2009	-0.5	-1	2.78E-03	U	2.78E-03	5.00E-03	1.02E+02	1.79E+00		
B6-2	107-05-1	SW8260B	9/2/2009	-14.5	-15	2.86E-03	U	2.86E-03	5.00E-03	1.02E+02	1.79E+00		
B7 0-1'	107-05-1	SW8260B	11/11/2009	0	-1	3.31E-03	U	3.31E-03	5.00E-03	1.02E+02	1.79E+00		
B7 14-15'	107-05-1	SW8260B	11/11/2009	-14	-15	3.62E-03	U	3.62E-03	5.00E-03	1.02E+02	1.79E+00		
B8-1	107-05-1	SW8260B	9/2/2009	-1	-1.5	2.83E-03	U	2.83E-03	5.00E-03	1.02E+02	1.79E+00		
B8-2	107-05-1	SW8260B	9/2/2009	-14	-15	2.75E-03	U	2.75E-03	5.00E-03	1.02E+02	1.79E+00		
B8-3	107-05-1	SW8260B	9/2/2009	-8	-8.5	2.99E-03	U	2.99E-03	5.00E-03	1.02E+02	1.79E+00		
B9 0-1'	107-05-1	SW8260B	11/11/2009	0	-1	3.89E-03	U	3.89E-03	5.00E-03	1.02E+02	1.79E+00		
B9 14-15'	107-05-1	SW8260B	11/11/2009	-14	-15	3.55E-03	U	3.55E-03	5.00E-03	1.02E+02	1.79E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Aluminum

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7429-90-5	SW6010B	8/31/2009	0	-1	1.49E+04		5.38E-01	2.50E+00	7.60E+07	1.02E+06	4.53E+03	1.63E+04
B1 0-1'	7429-90-5	SW6010B	11/11/2009	0	-1	2.61E+04		6.68E-01	2.50E+00	7.60E+07	1.02E+06	4.53E+03	1.63E+04
B1 14-15'	7429-90-5	SW6010B	11/11/2009	-14	-15	5.99E+03		6.02E-01	2.50E+00	7.60E+07	1.02E+06		
B10-1	7429-90-5	SW6010B	9/2/2009	-2	-3	2.04E+04		6.42E-01	2.50E+00	7.60E+07	1.02E+06	1.20E+04	2.58E+04
B10-2	7429-90-5	SW6010B	9/2/2009	-13	-14	1.30E+04		5.47E-01	2.50E+00	7.60E+07	1.02E+06		
B2 1-1.5	7429-90-5	SW6010B	9/1/2009	-1	-1.5	3.33E+04		5.09E-01	2.50E+00	7.60E+07	1.02E+06	1.20E+04	2.58E+04
B2 21-22.5	7429-90-5	SW6010B	9/1/2009	-21	-22.5	1.66E+04		6.02E-01	2.50E+00	7.60E+07	1.02E+06		
B3 12-13	7429-90-5	SW6010B	8/31/2009	-12	-13	5.88E+03		4.84E-01	2.50E+00	7.60E+07	1.02E+06		
B3 2-3	7429-90-5	SW6010B	8/31/2009	-2	-3	4.15E+04		5.66E-01	2.50E+00	7.60E+07	1.02E+06	1.20E+04	2.58E+04
B4 14-14.5	7429-90-5	SW6010B	9/1/2009	-14	-14.5	1.90E+04		5.43E-01	2.50E+00	7.60E+07	1.02E+06		
B4 2-2.5	7429-90-5	SW6010B	9/1/2009	-2	-2.5	2.06E+04		5.87E-01	2.50E+00	7.60E+07	1.02E+06	1.20E+04	2.58E+04
B5-1	7429-90-5	SW6010B	9/2/2009	-1	-1.5	3.81E+04		5.77E-01	2.50E+00	7.60E+07	1.02E+06	1.20E+04	2.58E+04
B5-2	7429-90-5	SW6010B	9/2/2009	-14.5	-15	2.05E+04		5.50E-01	2.50E+00	7.60E+07	1.02E+06		
B6-1	7429-90-5	SW6010B	9/2/2009	-0.5	-1	1.90E+04		5.33E-01	2.50E+00	7.60E+07	1.02E+06	4.53E+03	1.63E+04
B6-2	7429-90-5	SW6010B	9/2/2009	-14.5	-15	1.93E+04		5.50E-01	2.50E+00	7.60E+07	1.02E+06		
B7 0-1'	7429-90-5	SW6010B	11/11/2009	0	-1	7.68E+03		6.17E-01	2.50E+00	7.60E+07	1.02E+06	4.53E+03	1.63E+04
B7 14-15'	7429-90-5	SW6010B	11/11/2009	-14	-15	7.27E+03		6.36E-01	2.50E+00	7.60E+07	1.02E+06		
B8-1	7429-90-5	SW6010B	9/2/2009	-1	-1.5	2.20E+04		5.44E-01	2.50E+00	7.60E+07	1.02E+06	1.20E+04	2.58E+04
B8-2	7429-90-5	SW6010B	9/2/2009	-14	-15	1.63E+04		5.29E-01	2.50E+00	7.60E+07	1.02E+06		
B9 0-1'	7429-90-5	SW6010B	11/11/2009	0	-1	1.06E+04		6.52E-01	2.50E+00	7.60E+07	1.02E+06	4.53E+03	1.63E+04
B9 14-15'	7429-90-5	SW6010B	11/11/2009	-14	-15	6.59E+03		6.33E-01	2.50E+00	7.60E+07	1.02E+06		

Aniline

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	62-53-3	SW8270C	8/31/2009	0	-1	2.84E-01	U	2.84E-01	6.60E-01	5.02E+00	5.02E+02		
B1 0-1'	62-53-3	SW8270C	11/11/2009	0	-1	2.93E-01	U	2.93E-01	6.60E-01	5.02E+00	5.02E+02		
B1 14-15'	62-53-3	SW8270C	11/11/2009	-14	-15	2.64E-01	U	2.64E-01	6.60E-01	5.02E+00	5.02E+02		
B10-1	62-53-3	SW8270C	9/2/2009	-2	-3	3.38E-01	U	3.38E-01	6.60E-01	5.02E+00	5.02E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Aniline

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-2	62-53-3	SW8270C	9/2/2009	-13	-14	2.88E-01	U	2.88E-01	6.60E-01	5.02E+00	5.02E+02		
B2 1-1.5	62-53-3	SW8270C	9/1/2009	-1	-1.5	2.68E-01	U	2.68E-01	6.60E-01	5.02E+00	5.02E+02		
B2 21-22.5	62-53-3	SW8270C	9/1/2009	-21	-22.5	3.17E-01	U	3.17E-01	6.60E-01	5.02E+00	5.02E+02		
B3 12-13	62-53-3	SW8270C	8/31/2009	-12	-13	2.55E-01	U	2.55E-01	6.60E-01	5.02E+00	5.02E+02		
B3 2-3	62-53-3	SW8270C	8/31/2009	-2	-3	2.98E-01	U	2.98E-01	6.60E-01	5.02E+00	5.02E+02		
B4 14-14.5	62-53-3	SW8270C	9/1/2009	-14	-14.5	2.86E-01	U	2.86E-01	6.60E-01	5.02E+00	5.02E+02		
B4 2-2.5	62-53-3	SW8270C	9/1/2009	-2	-2.5	3.09E-01	U	3.09E-01	6.60E-01	5.02E+00	5.02E+02		
B5-1	62-53-3	SW8270C	9/2/2009	-1	-1.5	3.04E-01	U	3.04E-01	6.60E-01	5.02E+00	5.02E+02		
B5-2	62-53-3	SW8270C	9/2/2009	-14.5	-15	2.90E-01	U	2.90E-01	6.60E-01	5.02E+00	5.02E+02		
B6-1	62-53-3	SW8270C	9/2/2009	-0.5	-1	2.81E-01	U	2.81E-01	6.60E-01	5.02E+00	5.02E+02		
B6-2	62-53-3	SW8270C	9/2/2009	-14.5	-15	2.90E-01	U	2.90E-01	6.60E-01	5.02E+00	5.02E+02		
B7 0-1'	62-53-3	SW8270C	11/11/2009	0	-1	2.71E-01	U	2.71E-01	6.60E-01	5.02E+00	5.02E+02		
B7 14-15'	62-53-3	SW8270C	11/11/2009	-14	-15	2.79E-01	U	2.79E-01	6.60E-01	5.02E+00	5.02E+02		
B8-1	62-53-3	SW8270C	9/2/2009	-1	-1.5	2.87E-01	U	2.87E-01	6.60E-01	5.02E+00	5.02E+02		
B8-2	62-53-3	SW8270C	9/2/2009	-14	-15	2.79E-01	U	2.79E-01	6.60E-01	5.02E+00	5.02E+02		
B9 0-1'	62-53-3	SW8270C	11/11/2009	0	-1	2.86E-01	U	2.86E-01	6.60E-01	5.02E+00	5.02E+02		
B9 14-15'	62-53-3	SW8270C	11/11/2009	-14	-15	2.78E-01	U	2.78E-01	6.60E-01	5.02E+00	5.02E+02		

Anthracene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	120-12-7	SW8270C	8/31/2009	0	-1	1.28E-01	U	1.28E-01	3.30E-01	3.07E+03	2.67E+05		
B1 0-1'	120-12-7	SW8270C	11/11/2009	0	-1	1.32E-01	U	1.32E-01	3.30E-01	3.07E+03	2.67E+05		
B1 14-15'	120-12-7	SW8270C	11/11/2009	-14	-15	1.19E-01	U	1.19E-01	3.30E-01	3.07E+03	2.67E+05		
B10-1	120-12-7	SW8270C	9/2/2009	-2	-3	1.53E-01	U	1.53E-01	3.30E-01	3.07E+03	2.67E+05		
B10-2	120-12-7	SW8270C	9/2/2009	-13	-14	1.30E-01	U	1.30E-01	3.30E-01	3.07E+03	2.67E+05		
B2 1-1.5	120-12-7	SW8270C	9/1/2009	-1	-1.5	1.21E-01	U	1.21E-01	3.30E-01	3.07E+03	2.67E+05		
B2 21-22.5	120-12-7	SW8270C	9/1/2009	-21	-22.5	1.43E-01	U	1.43E-01	3.30E-01	3.07E+03	2.67E+05		
B3 12-13	120-12-7	SW8270C	8/31/2009	-12	-13	1.15E-01	U	1.15E-01	3.30E-01	3.07E+03	2.67E+05		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Anthracene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B3 2-3	120-12-7	SW8270C	8/31/2009	-2	-3	1.35E-01	U	1.34E-01	3.30E-01	3.07E+03	2.67E+05		
B4 14-14.5	120-12-7	SW8270C	9/1/2009	-14	-14.5	1.29E-01	U	1.29E-01	3.30E-01	3.07E+03	2.67E+05		
B4 2-2.5	120-12-7	SW8270C	9/1/2009	-2	-2.5	1.39E-01	U	1.39E-01	3.30E-01	3.07E+03	2.67E+05		
B5-1	120-12-7	SW8270C	9/2/2009	-1	-1.5	1.37E-01	U	1.37E-01	3.30E-01	3.07E+03	2.67E+05		
B5-2	120-12-7	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	3.07E+03	2.67E+05		
B6-1	120-12-7	SW8270C	9/2/2009	-0.5	-1	1.27E-01	U	1.27E-01	3.30E-01	3.07E+03	2.67E+05		
B6-2	120-12-7	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	3.07E+03	2.67E+05		
B7 0-1'	120-12-7	SW8270C	11/11/2009	0	-1	1.22E-01	U	1.22E-01	3.30E-01	3.07E+03	2.67E+05		
B7 14-15'	120-12-7	SW8270C	11/11/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	3.07E+03	2.67E+05		
B8-1	120-12-7	SW8270C	9/2/2009	-1	-1.5	1.29E-01	U	1.29E-01	3.30E-01	3.07E+03	2.67E+05		
B8-2	120-12-7	SW8270C	9/2/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	3.07E+03	2.67E+05		
B9 0-1'	120-12-7	SW8270C	11/11/2009	0	-1	1.29E-01	U	1.29E-01	3.30E-01	3.07E+03	2.67E+05		
B9 14-15'	120-12-7	SW8270C	11/11/2009	-14	-15	1.25E-01	U	1.25E-01	3.30E-01	3.07E+03	2.67E+05		

Antimony

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-36-0	SW6010B	8/31/2009	0	-1	6.63E-01	U	6.63E-01	2.50E+00	8.20E+00	4.91E+02	2.34E-01	9.40E-01
B1 0-1'	7440-36-0	SW6010B	11/11/2009	0	-1	8.23E-01	U	8.23E-01	2.50E+00	8.20E+00	4.91E+02	2.34E-01	9.40E-01
B1 14-15'	7440-36-0	SW6010B	11/11/2009	-14	-15	7.41E-01	U	7.41E-01	2.50E+00	8.20E+00	4.91E+02		
B10-1	7440-36-0	SW6010B	9/2/2009	-2	-3	7.91E-01	U	7.91E-01	2.50E+00	8.20E+00	4.91E+02	4.68E-01	1.60E+00
B10-2	7440-36-0	SW6010B	9/2/2009	-13	-14	6.73E-01	U	6.73E-01	2.50E+00	8.20E+00	4.91E+02		
B2 1-1.5	7440-36-0	SW6010B	9/1/2009	-1	-1.5	6.26E-01	U	6.26E-01	2.50E+00	8.20E+00	4.91E+02	4.68E-01	1.60E+00
B2 21-22.5	7440-36-0	SW6010B	9/1/2009	-21	-22.5	7.41E-01	U	7.41E-01	2.50E+00	8.20E+00	4.91E+02		
B3 12-13	7440-36-0	SW6010B	8/31/2009	-12	-13	9.22E+00		5.96E-01	2.50E+00	8.20E+00	4.91E+02		
B3 2-3	7440-36-0	SW6010B	8/31/2009	-2	-3	6.97E-01	U	6.97E-01	2.50E+00	8.20E+00	4.91E+02	4.68E-01	1.60E+00
B4 14-14.5	7440-36-0	SW6010B	9/1/2009	-14	-14.5	6.69E-01	U	6.69E-01	2.50E+00	8.20E+00	4.91E+02		
B4 2-2.5	7440-36-0	SW6010B	9/1/2009	-2	-2.5	7.22E-01	U	7.22E-01	2.50E+00	8.20E+00	4.91E+02	4.68E-01	1.60E+00
B5-1	7440-36-0	SW6010B	9/2/2009	-1	-1.5	7.11E-01	U	7.11E-01	2.50E+00	8.20E+00	4.91E+02	4.68E-01	1.60E+00

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Antimony

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B5-2	7440-36-0	SW6010B	9/2/2009	-14.5	-15	6.77E-01	U	6.77E-01	2.50E+00	8.20E+00	4.91E+02		
B6-1	7440-36-0	SW6010B	9/2/2009	-0.5	-1	3.85E+00		6.57E-01	2.50E+00	8.20E+00	4.91E+02	2.34E-01	9.40E-01
B6-2	7440-36-0	SW6010B	9/2/2009	-14.5	-15	6.77E-01	U	6.77E-01	2.50E+00	8.20E+00	4.91E+02		
B7 0-1'	7440-36-0	SW6010B	11/11/2009	0	-1	7.60E-01	U	7.60E-01	2.50E+00	8.20E+00	4.91E+02	2.34E-01	9.40E-01
B7 14-15'	7440-36-0	SW6010B	11/11/2009	-14	-15	7.84E-01	U	7.84E-01	2.50E+00	8.20E+00	4.91E+02		
B8-1	7440-36-0	SW6010B	9/2/2009	-1	-1.5	6.70E-01	U	6.70E-01	2.50E+00	8.20E+00	4.91E+02	4.68E-01	1.60E+00
B8-2	7440-36-0	SW6010B	9/2/2009	-14	-15	6.51E-01	U	6.51E-01	2.50E+00	8.20E+00	4.91E+02		
B9 0-1'	7440-36-0	SW6010B	11/11/2009	0	-1	8.03E-01	U	8.03E-01	2.50E+00	8.20E+00	4.91E+02	2.34E-01	9.40E-01
B9 14-15'	7440-36-0	SW6010B	11/11/2009	-14	-15	7.80E-01	U	7.80E-01	2.50E+00	8.20E+00	4.91E+02		

Arsenic

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-38-2	SW6010B	8/31/2009	0	-1	3.66E+00		8.01E-01	1.50E+00	7.65E+00	2.00E+02	2.73E+00	6.12E+00
B1 0-1'	7440-38-2	SW6010B	11/11/2009	0	-1	5.59E+00		8.28E-01	1.50E+00	7.65E+00	2.00E+02	2.73E+00	6.12E+00
B1 14-15'	7440-38-2	SW6010B	11/11/2009	-14	-15	7.45E-01	U	7.45E-01	1.50E+00	7.65E+00	2.00E+02		
B10-1	7440-38-2	SW6010B	9/2/2009	-2	-3	9.56E-01	U	9.56E-01	1.50E+00	7.65E+00	2.00E+02	3.87E+00	6.15E+00
B10-2	7440-38-2	SW6010B	9/2/2009	-13	-14	8.14E-01	U	8.13E-01	1.50E+00	7.65E+00	2.00E+02		
B2 1-1.5	7440-38-2	SW6010B	9/1/2009	-1	-1.5	4.49E+00		7.57E-01	1.50E+00	7.65E+00	2.00E+02	3.87E+00	6.15E+00
B2 21-22.5	7440-38-2	SW6010B	9/1/2009	-21	-22.5	8.96E-01	U	8.96E-01	1.50E+00	7.65E+00	2.00E+02		
B3 12-13	7440-38-2	SW6010B	8/31/2009	-12	-13	7.21E-01	U	7.20E-01	1.50E+00	7.65E+00	2.00E+02		
B3 2-3	7440-38-2	SW6010B	8/31/2009	-2	-3	3.39E+00		8.42E-01	1.50E+00	7.65E+00	2.00E+02	3.87E+00	6.15E+00
B4 14-14.5	7440-38-2	SW6010B	9/1/2009	-14	-14.5	4.39E+00		8.09E-01	1.50E+00	7.65E+00	2.00E+02		
B4 2-2.5	7440-38-2	SW6010B	9/1/2009	-2	-2.5	3.18E+00		8.73E-01	1.50E+00	7.65E+00	2.00E+02	3.87E+00	6.15E+00
B5-1	7440-38-2	SW6010B	9/2/2009	-1	-1.5	8.59E-01	U	8.59E-01	1.50E+00	7.65E+00	2.00E+02	3.87E+00	6.15E+00
B5-2	7440-38-2	SW6010B	9/2/2009	-14.5	-15	8.18E-01	U	8.18E-01	1.50E+00	7.65E+00	2.00E+02		
B6-1	7440-38-2	SW6010B	9/2/2009	-0.5	-1	7.94E-01	U	7.94E-01	1.50E+00	7.65E+00	2.00E+02	2.73E+00	6.12E+00
B6-2	7440-38-2	SW6010B	9/2/2009	-14.5	-15	4.18E+00		8.18E-01	1.50E+00	7.65E+00	2.00E+02		
B7 0-1'	7440-38-2	SW6010B	11/11/2009	0	-1	7.65E-01	U	7.65E-01	1.50E+00	7.65E+00	2.00E+02	2.73E+00	6.12E+00

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Arsenic

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 14-15'	7440-38-2	SW6010B	11/11/2009	-14	-15	7.88E-01	U	7.88E-01	1.50E+00	7.65E+00	2.00E+02		
B8-1	7440-38-2	SW6010B	9/2/2009	-1	-1.5	3.90E+00		8.10E-01	1.50E+00	7.65E+00	2.00E+02	3.87E+00	6.15E+00
B8-2	7440-38-2	SW6010B	9/2/2009	-14	-15	7.87E-01	U	7.87E-01	1.50E+00	7.65E+00	2.00E+02		
B9 0-1'	7440-38-2	SW6010B	11/11/2009	0	-1	8.08E-01	U	8.08E-01	1.50E+00	7.65E+00	2.00E+02	2.73E+00	6.12E+00
B9 14-15'	7440-38-2	SW6010B	11/11/2009	-14	-15	4.92E+00		7.85E-01	1.50E+00	7.65E+00	2.00E+02		

Barium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-39-3	SW6010B	8/31/2009	0	-1	9.85E+01		2.44E-01	1.00E+00	4.00E+02	1.68E+05	7.76E+01	2.05E+02
B1 0-1'	7440-39-3	SW6010B	11/11/2009	0	-1	1.42E+02		2.52E-01	1.00E+00	4.00E+02	1.68E+05	7.76E+01	2.05E+02
B1 14-15'	7440-39-3	SW6010B	11/11/2009	-14	-15	3.53E+01		2.27E-01	1.00E+00	4.00E+02	1.68E+05		
B10-1	7440-39-3	SW6010B	9/2/2009	-2	-3	1.83E+02		2.91E-01	1.00E+00	4.00E+02	1.68E+05	5.89E+01	9.89E+01
B10-2	7440-39-3	SW6010B	9/2/2009	-13	-14	3.73E+01		2.48E-01	1.00E+00	4.00E+02	1.68E+05		
B2 1-1.5	7440-39-3	SW6010B	9/1/2009	-1	-1.5	9.59E+01		2.31E-01	1.00E+00	4.00E+02	1.68E+05	5.89E+01	9.89E+01
B2 21-22.5	7440-39-3	SW6010B	9/1/2009	-21	-22.5	1.25E+02		2.73E-01	1.00E+00	4.00E+02	1.68E+05		
B3 12-13	7440-39-3	SW6010B	8/31/2009	-12	-13	3.46E+01		2.20E-01	1.00E+00	4.00E+02	1.68E+05		
B3 2-3	7440-39-3	SW6010B	8/31/2009	-2	-3	1.23E+02		2.57E-01	1.00E+00	4.00E+02	1.68E+05	5.89E+01	9.89E+01
B4 14-14.5	7440-39-3	SW6010B	9/1/2009	-14	-14.5	1.81E+02		2.46E-01	1.00E+00	4.00E+02	1.68E+05		
B4 2-2.5	7440-39-3	SW6010B	9/1/2009	-2	-2.5	1.62E+02		2.66E-01	1.00E+00	4.00E+02	1.68E+05	5.89E+01	9.89E+01
B5-1	7440-39-3	SW6010B	9/2/2009	-1	-1.5	1.41E+02		2.62E-01	1.00E+00	4.00E+02	1.68E+05	5.89E+01	9.89E+01
B5-2	7440-39-3	SW6010B	9/2/2009	-14.5	-15	1.86E+02		2.49E-01	1.00E+00	4.00E+02	1.68E+05		
B6-1	7440-39-3	SW6010B	9/2/2009	-0.5	-1	1.27E+02		2.42E-01	1.00E+00	4.00E+02	1.68E+05	7.76E+01	2.05E+02
B6-2	7440-39-3	SW6010B	9/2/2009	-14.5	-15	1.13E+02		2.49E-01	1.00E+00	4.00E+02	1.68E+05		
B7 0-1'	7440-39-3	SW6010B	11/11/2009	0	-1	3.92E+01		2.33E-01	1.00E+00	4.00E+02	1.68E+05	7.76E+01	2.05E+02
B7 14-15'	7440-39-3	SW6010B	11/11/2009	-14	-15	1.42E+02		2.40E-01	1.00E+00	4.00E+02	1.68E+05		
B8-1	7440-39-3	SW6010B	9/2/2009	-1	-1.5	5.37E+01		2.47E-01	1.00E+00	4.00E+02	1.68E+05	5.89E+01	9.89E+01
B8-2	7440-39-3	SW6010B	9/2/2009	-14	-15	7.27E+01		2.40E-01	1.00E+00	4.00E+02	1.68E+05		
B9 0-1'	7440-39-3	SW6010B	11/11/2009	0	-1	7.34E+01		2.46E-01	1.00E+00	4.00E+02	1.68E+05	7.76E+01	2.05E+02

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Barium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B9 14-15'	7440-39-3	SW6010B	11/11/2009	-14	-15	7.65E+01		2.39E-01	1.00E+00	4.00E+02	1.68E+05		

Benzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	71-43-2	SW8260B	8/31/2009	0	-1	6.73E-04	U	6.73E-04	5.00E-03	5.00E-01	1.58E+00		
B1 0-1'	71-43-2	SW8260B	11/11/2009	0	-1	1.01E-03	U	1.01E-03	5.00E-03	5.00E-01	1.58E+00		
B1 14-15'	71-43-2	SW8260B	11/11/2009	-14	-15	7.32E-04	U	7.32E-04	5.00E-03	5.00E-01	1.58E+00		
B10-1	71-43-2	SW8260B	9/2/2009	-2	-3	8.03E-04	U	8.03E-04	5.00E-03	5.00E-01	1.58E+00		
B10-2	71-43-2	SW8260B	9/2/2009	-13	-14	6.84E-04	U	6.84E-04	5.00E-03	5.00E-01	1.58E+00		
B2 1-1.5	71-43-2	SW8260B	9/1/2009	-1	-1.5	6.36E-04	U	6.36E-04	5.00E-03	5.00E-01	1.58E+00		
B2 21-22.5	71-43-2	SW8260B	9/1/2009	-21	-22.5	7.53E-04	U	7.53E-04	5.00E-03	5.00E-01	1.58E+00		
B3 12-13	71-43-2	SW8260B	8/31/2009	-12	-13	6.06E-04	U	6.05E-04	5.00E-03	5.00E-01	1.58E+00		
B3 2-3	71-43-2	SW8260B	8/31/2009	-2	-3	7.08E-04	U	7.08E-04	5.00E-03	5.00E-01	1.58E+00		
B4 14.5-15	71-43-2	SW8260B	9/1/2009	-14.5	-15	6.88E-04	U	6.88E-04	5.00E-03	5.00E-01	1.58E+00		
B4 2-2.5	71-43-2	SW8260B	9/1/2009	-2	-2.5	7.34E-04	U	7.34E-04	5.00E-03	5.00E-01	1.58E+00		
B5-1	71-43-2	SW8260B	9/2/2009	-1	-1.5	7.22E-04	U	7.22E-04	5.00E-03	5.00E-01	1.58E+00		
B5-2	71-43-2	SW8260B	9/2/2009	-14.5	-15	6.88E-04	U	6.88E-04	5.00E-03	5.00E-01	1.58E+00		
B6-1	71-43-2	SW8260B	9/2/2009	-0.5	-1	6.67E-04	U	6.67E-04	5.00E-03	5.00E-01	1.58E+00		
B6-2	71-43-2	SW8260B	9/2/2009	-14.5	-15	6.88E-04	U	6.88E-04	5.00E-03	5.00E-01	1.58E+00		
B7 0-1'	71-43-2	SW8260B	11/11/2009	0	-1	7.93E-04	U	7.93E-04	5.00E-03	5.00E-01	1.58E+00		
B7 14-15'	71-43-2	SW8260B	11/11/2009	-14	-15	8.66E-04	U	8.66E-04	5.00E-03	5.00E-01	1.58E+00		
B8-1	71-43-2	SW8260B	9/2/2009	-1	-1.5	6.80E-04	U	6.80E-04	5.00E-03	5.00E-01	1.58E+00		
B8-2	71-43-2	SW8260B	9/2/2009	-14	-15	6.62E-04	U	6.62E-04	5.00E-03	5.00E-01	1.58E+00		
B8-3	71-43-2	SW8260B	9/2/2009	-8	-8.5	7.18E-04	U	7.17E-04	5.00E-03	5.00E-01	1.58E+00		
B9 0-1'	71-43-2	SW8260B	11/11/2009	0	-1	9.33E-04	U	9.33E-04	5.00E-03	5.00E-01	1.58E+00		
B9 14-15'	71-43-2	SW8260B	11/11/2009	-14	-15	8.55E-04	U	8.55E-04	5.00E-03	5.00E-01	1.58E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Benzidine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	92-87-5	SW8270C	8/31/2009	0	-1	4.53E-02	U	4.53E-02	1.00E-01	1.24E-04	1.24E-02		
B1 0-1	92-87-5	SW8270C	8/31/2009	0	-1	2.91E-01	U	2.91E-01	6.60E-01	1.24E-04	1.24E-02		
B1 0-1'	92-87-5	SW8270C	11/11/2009	0	-1	4.69E-02	U	4.69E-02	1.00E-01	1.24E-04	1.24E-02		
B1 14-15'	92-87-5	SW8270C	11/11/2009	-14	-15	4.22E-02	U	4.22E-02	1.00E-01	1.24E-04	1.24E-02		
B10-1	92-87-5	SW8270C	9/2/2009	-2	-3	5.41E-02	U	5.41E-02	1.00E-01	1.24E-04	1.24E-02		
B10-1	92-87-5	SW8270C	9/2/2009	-2	-3	3.47E-01	U	3.47E-01	6.60E-01	1.24E-04	1.24E-02		
B10-2	92-87-5	SW8270C	9/2/2009	-13	-14	2.95E-01	U	2.95E-01	6.60E-01	1.24E-04	1.24E-02		
B10-2	92-87-5	SW8270C	9/2/2009	-13	-14	4.60E-02	U	4.60E-02	1.00E-01	1.24E-04	1.24E-02		
B2 1-1.5	92-87-5	SW8270C	9/1/2009	-1	-1.5	2.75E-01	U	2.75E-01	6.60E-01	1.24E-04	1.24E-02		
B2 1-1.5	92-87-5	SW8270C	9/1/2009	-1	-1.5	4.29E-02	U	4.29E-02	1.00E-01	1.24E-04	1.24E-02		
B2 21-22.5	92-87-5	SW8270C	9/1/2009	-21	-22.5	5.07E-02	U	5.07E-02	1.00E-01	1.24E-04	1.24E-02		
B2 21-22.5	92-87-5	SW8270C	9/1/2009	-21	-22.5	3.25E-01	U	3.25E-01	6.60E-01	1.24E-04	1.24E-02		
B3 12-13	92-87-5	SW8270C	8/31/2009	-12	-13	4.08E-02	U	4.08E-02	1.00E-01	1.24E-04	1.24E-02		
B3 12-13	92-87-5	SW8270C	8/31/2009	-12	-13	2.61E-01	U	2.61E-01	6.60E-01	1.24E-04	1.24E-02		
B3 2-3	92-87-5	SW8270C	8/31/2009	-2	-3	3.06E-01	U	3.06E-01	6.60E-01	1.24E-04	1.24E-02		
B3 2-3	92-87-5	SW8270C	8/31/2009	-2	-3	4.77E-02	U	4.77E-02	1.00E-01	1.24E-04	1.24E-02		
B4 14-14.5	92-87-5	SW8270C	9/1/2009	-14	-14.5	2.93E-01	U	2.93E-01	6.60E-01	1.24E-04	1.24E-02		
B4 14-14.5	92-87-5	SW8270C	9/1/2009	-14	-14.5	4.58E-02	U	4.58E-02	1.00E-01	1.24E-04	1.24E-02		
B4 2-2.5	92-87-5	SW8270C	9/1/2009	-2	-2.5	3.17E-01	U	3.17E-01	6.60E-01	1.24E-04	1.24E-02		
B4 2-2.5	92-87-5	SW8270C	9/1/2009	-2	-2.5	4.94E-02	U	4.94E-02	1.00E-01	1.24E-04	1.24E-02		
B5-1	92-87-5	SW8270C	9/2/2009	-1	-1.5	3.12E-01	U	3.12E-01	6.60E-01	1.24E-04	1.24E-02		
B5-1	92-87-5	SW8270C	9/2/2009	-1	-1.5	4.86E-02	U	4.86E-02	1.00E-01	1.24E-04	1.24E-02		
B5-2	92-87-5	SW8270C	9/2/2009	-14.5	-15	4.63E-02	U	4.63E-02	1.00E-01	1.24E-04	1.24E-02		
B5-2	92-87-5	SW8270C	9/2/2009	-14.5	-15	2.97E-01	U	2.97E-01	6.60E-01	1.24E-04	1.24E-02		
B6-1	92-87-5	SW8270C	9/2/2009	-0.5	-1	4.49E-02	U	4.49E-02	1.00E-01	1.24E-04	1.24E-02		
B6-1	92-87-5	SW8270C	9/2/2009	-0.5	-1	2.88E-01	U	2.88E-01	6.60E-01	1.24E-04	1.24E-02		
B6-2	92-87-5	SW8270C	9/2/2009	-14.5	-15	4.63E-02	U	4.63E-02	1.00E-01	1.24E-04	1.24E-02		

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Benzidine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6-2	92-87-5	SW8270C	9/2/2009	-14.5	-15	2.97E-01	U	2.97E-01	6.60E-01	1.24E-04	1.24E-02		
B7 0-1'	92-87-5	SW8270C	11/11/2009	0	-1	4.33E-02	U	4.33E-02	1.00E-01	1.24E-04	1.24E-02		
B7 14-15'	92-87-5	SW8270C	11/11/2009	-14	-15	4.46E-02	U	4.46E-02	1.00E-01	1.24E-04	1.24E-02		
B8-1	92-87-5	SW8270C	9/2/2009	-1	-1.5	4.58E-02	U	4.58E-02	1.00E-01	1.24E-04	1.24E-02		
B8-1	92-87-5	SW8270C	9/2/2009	-1	-1.5	2.94E-01	U	2.94E-01	6.60E-01	1.24E-04	1.24E-02		
B8-2	92-87-5	SW8270C	9/2/2009	-14	-15	2.86E-01	U	2.86E-01	6.60E-01	1.24E-04	1.24E-02		
B8-2	92-87-5	SW8270C	9/2/2009	-14	-15	4.46E-02	U	4.46E-02	1.00E-01	1.24E-04	1.24E-02		
B9 0-1'	92-87-5	SW8270C	11/11/2009	0	-1	4.57E-02	U	4.57E-02	1.00E-01	1.24E-04	1.24E-02		
B9 14-15'	92-87-5	SW8270C	11/11/2009	-14	-15	4.44E-02	U	4.44E-02	1.00E-01	1.24E-04	1.24E-02		

Benzo(a)anthracene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	56-55-3	SW8270C	8/31/2009	0	-1	2.53E-02	U	2.53E-02	3.30E-01	1.77E+03	3.41E+00		
B1 0-1	56-55-3	SW8270C	8/31/2009	0	-1	2.05E-02	U	2.05E-02	3.33E-02	1.77E+03	3.41E+00		
B1 0-1'	56-55-3	SW8270C	11/11/2009	0	-1	2.62E-02	U	2.62E-02	3.30E-01	1.77E+03	3.41E+00		
B1 0-1'	56-55-3	SW8270C	11/11/2009	0	-1	2.12E-02	U	2.12E-02	6.60E-02	1.77E+03	3.41E+00		
B1 14-15'	56-55-3	SW8270C	11/11/2009	-14	-15	1.90E-02	U	1.90E-02	6.60E-02	1.77E+03	3.41E+00		
B1 14-15'	56-55-3	SW8270C	11/11/2009	-14	-15	2.36E-02	U	2.36E-02	3.30E-01	1.77E+03	3.41E+00		
B10-1	56-55-3	SW8270C	9/2/2009	-2	-3	2.44E-02	U	2.44E-02	3.33E-02	1.77E+03	3.41E+00		
B10-1	56-55-3	SW8270C	9/2/2009	-2	-3	3.02E-02	U	3.02E-02	3.30E-01	1.77E+03	3.41E+00		
B10-2	56-55-3	SW8270C	9/2/2009	-13	-14	2.57E-02	U	2.57E-02	3.30E-01	1.77E+03	3.41E+00		
B10-2	56-55-3	SW8270C	9/2/2009	-13	-14	2.08E-02	U	2.08E-02	3.33E-02	1.77E+03	3.41E+00		
B2 1-1.5	56-55-3	SW8270C	9/1/2009	-1	-1.5	2.40E-02	U	2.40E-02	3.30E-01	1.77E+03	3.41E+00		
B2 1-1.5	56-55-3	SW8270C	9/1/2009	-1	-1.5	1.93E-02	U	1.93E-02	3.33E-02	1.77E+03	3.41E+00		
B2 21-22.5	56-55-3	SW8270C	9/1/2009	-21	-22.5	2.29E-02	U	2.29E-02	3.33E-02	1.77E+03	3.41E+00		
B2 21-22.5	56-55-3	SW8270C	9/1/2009	-21	-22.5	2.83E-02	U	2.83E-02	3.30E-01	1.77E+03	3.41E+00		
B3 12-13	56-55-3	SW8270C	8/31/2009	-12	-13	2.28E-02	U	2.28E-02	3.30E-01	1.77E+03	3.41E+00		
B3 12-13	56-55-3	SW8270C	8/31/2009	-12	-13	1.84E-02	U	1.84E-02	3.33E-02	1.77E+03	3.41E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Benzo(a)anthracene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B3 2-3	56-55-3	SW8270C	8/31/2009	-2	-3	2.15E-02	U	2.15E-02	3.33E-02	1.77E+03	3.41E+00		
B3 2-3	56-55-3	SW8270C	8/31/2009	-2	-3	2.67E-02	U	2.67E-02	3.30E-01	1.77E+03	3.41E+00		
B4 14-14.5	56-55-3	SW8270C	9/1/2009	-14	-14.5	2.07E-02	U	2.07E-02	3.33E-02	1.77E+03	3.41E+00		
B4 14-14.5	56-55-3	SW8270C	9/1/2009	-14	-14.5	2.56E-02	U	2.56E-02	3.30E-01	1.77E+03	3.41E+00		
B4 2-2.5	56-55-3	SW8270C	9/1/2009	-2	-2.5	2.76E-02	U	2.76E-02	3.30E-01	1.77E+03	3.41E+00		
B4 2-2.5	56-55-3	SW8270C	9/1/2009	-2	-2.5	2.23E-02	U	2.23E-02	3.33E-02	1.77E+03	3.41E+00		
B5-1	56-55-3	SW8270C	9/2/2009	-1	-1.5	2.72E-02	U	2.72E-02	3.30E-01	1.77E+03	3.41E+00		
B5-1	56-55-3	SW8270C	9/2/2009	-1	-1.5	2.19E-02	U	2.19E-02	3.33E-02	1.77E+03	3.41E+00		
B5-2	56-55-3	SW8270C	9/2/2009	-14.5	-15	2.09E-02	U	2.09E-02	3.33E-02	1.77E+03	3.41E+00		
B5-2	56-55-3	SW8270C	9/2/2009	-14.5	-15	2.59E-02	U	2.59E-02	3.30E-01	1.77E+03	3.41E+00		
B6-1	56-55-3	SW8270C	9/2/2009	-0.5	-1	2.03E-02	U	2.03E-02	3.33E-02	1.77E+03	3.41E+00		
B6-1	56-55-3	SW8270C	9/2/2009	-0.5	-1	2.51E-02	U	2.51E-02	3.30E-01	1.77E+03	3.41E+00		
B6-2	56-55-3	SW8270C	9/2/2009	-14.5	-15	2.09E-02	U	2.09E-02	3.33E-02	1.77E+03	3.41E+00		
B6-2	56-55-3	SW8270C	9/2/2009	-14.5	-15	2.59E-02	U	2.59E-02	3.30E-01	1.77E+03	3.41E+00		
B7 0-1'	56-55-3	SW8270C	11/11/2009	0	-1	1.95E-02	U	1.95E-02	6.60E-02	1.77E+03	3.41E+00		
B7 0-1'	56-55-3	SW8270C	11/11/2009	0	-1	2.42E-02	U	2.42E-02	3.30E-01	1.77E+03	3.41E+00		
B7 14-15'	56-55-3	SW8270C	11/11/2009	-14	-15	2.49E-02	U	2.49E-02	3.30E-01	1.77E+03	3.41E+00		
B7 14-15'	56-55-3	SW8270C	11/11/2009	-14	-15	2.01E-02	U	2.01E-02	6.60E-02	1.77E+03	3.41E+00		
B8-1	56-55-3	SW8270C	9/2/2009	-1	-1.5	2.07E-02	U	2.07E-02	3.33E-02	1.77E+03	3.41E+00		
B8-1	56-55-3	SW8270C	9/2/2009	-1	-1.5	2.56E-02	U	2.56E-02	3.30E-01	1.77E+03	3.41E+00		
B8-2	56-55-3	SW8270C	9/2/2009	-14	-15	2.49E-02	U	2.49E-02	3.30E-01	1.77E+03	3.41E+00		
B8-2	56-55-3	SW8270C	9/2/2009	-14	-15	2.01E-02	U	2.01E-02	3.33E-02	1.77E+03	3.41E+00		
B9 0-1'	56-55-3	SW8270C	11/11/2009	0	-1	2.56E-02	U	2.56E-02	3.30E-01	1.77E+03	3.41E+00		
B9 0-1'	56-55-3	SW8270C	11/11/2009	0	-1	2.06E-02	U	2.06E-02	6.60E-02	1.77E+03	3.41E+00		
B9 14-15'	56-55-3	SW8270C	11/11/2009	-14	-15	2.00E-02	U	2.00E-02	6.60E-02	1.77E+03	3.41E+00		
B9 14-15'	56-55-3	SW8270C	11/11/2009	-14	-15	2.48E-02	U	2.48E-02	3.30E-01	1.77E+03	3.41E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Benzo(a)pyrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	50-32-8	SW8270C	8/31/2009	0	-1	1.08E-02	U	1.08E-02	3.33E-02	2.00E-02	3.41E-01		
B1 0-1	50-32-8	SW8270C	8/31/2009	0	-1	6.55E-02	U	6.55E-02	3.30E-01	2.00E-02	3.41E-01		
B1 0-1'	50-32-8	SW8270C	11/11/2009	0	-1	6.77E-02	U	6.77E-02	3.30E-01	2.00E-02	3.41E-01		
B1 0-1'	50-32-8	SW8270C	11/11/2009	0	-1	1.12E-02	U	1.12E-02	3.00E-02	2.00E-02	3.41E-01		
B1 14-15'	50-32-8	SW8270C	11/11/2009	-14	-15	1.01E-02	U	1.01E-02	3.00E-02	2.00E-02	3.41E-01		
B1 14-15'	50-32-8	SW8270C	11/11/2009	-14	-15	6.09E-02	U	6.09E-02	3.30E-01	2.00E-02	3.41E-01		
B10-1	50-32-8	SW8270C	9/2/2009	-2	-3	1.28E-02	U	1.28E-02	3.33E-02	2.00E-02	3.41E-01		
B10-1	50-32-8	SW8270C	9/2/2009	-2	-3	7.81E-02	U	7.81E-02	3.30E-01	2.00E-02	3.41E-01		
B10-2	50-32-8	SW8270C	9/2/2009	-13	-14	1.09E-02	U	1.09E-02	3.33E-02	2.00E-02	3.41E-01		
B10-2	50-32-8	SW8270C	9/2/2009	-13	-14	6.65E-02	U	6.65E-02	3.30E-01	2.00E-02	3.41E-01		
B2 1-1.5	50-32-8	SW8270C	9/1/2009	-1	-1.5	6.19E-02	U	6.19E-02	3.30E-01	2.00E-02	3.41E-01		
B2 1-1.5	50-32-8	SW8270C	9/1/2009	-1	-1.5	1.02E-02	U	1.02E-02	3.33E-02	2.00E-02	3.41E-01		
B2 21-22.5	50-32-8	SW8270C	9/1/2009	-21	-22.5	7.32E-02	U	7.32E-02	3.30E-01	2.00E-02	3.41E-01		
B2 21-22.5	50-32-8	SW8270C	9/1/2009	-21	-22.5	1.20E-02	U	1.20E-02	3.33E-02	2.00E-02	3.41E-01		
B3 12-13	50-32-8	SW8270C	8/31/2009	-12	-13	9.68E-03	U	9.68E-03	3.33E-02	2.00E-02	3.41E-01		
B3 12-13	50-32-8	SW8270C	8/31/2009	-12	-13	5.89E-02	U	5.89E-02	3.30E-01	2.00E-02	3.41E-01		
B3 2-3	50-32-8	SW8270C	8/31/2009	-2	-3	1.13E-02	U	1.13E-02	3.33E-02	2.00E-02	3.41E-01		
B3 2-3	50-32-8	SW8270C	8/31/2009	-2	-3	6.88E-02	U	6.88E-02	3.30E-01	2.00E-02	3.41E-01		
B4 14-14.5	50-32-8	SW8270C	9/1/2009	-14	-14.5	1.09E-02	U	1.09E-02	3.33E-02	2.00E-02	3.41E-01		
B4 14-14.5	50-32-8	SW8270C	9/1/2009	-14	-14.5	6.61E-02	U	6.61E-02	3.30E-01	2.00E-02	3.41E-01		
B4 2-2.5	50-32-8	SW8270C	9/1/2009	-2	-2.5	7.14E-02	U	7.14E-02	3.30E-01	2.00E-02	3.41E-01		
B4 2-2.5	50-32-8	SW8270C	9/1/2009	-2	-2.5	1.17E-02	U	1.17E-02	3.33E-02	2.00E-02	3.41E-01		
B5-1	50-32-8	SW8270C	9/2/2009	-1	-1.5	7.02E-02	U	7.02E-02	3.30E-01	2.00E-02	3.41E-01		
B5-1	50-32-8	SW8270C	9/2/2009	-1	-1.5	1.15E-02	U	1.15E-02	3.33E-02	2.00E-02	3.41E-01		
B5-2	50-32-8	SW8270C	9/2/2009	-14.5	-15	6.69E-02	U	6.69E-02	3.30E-01	2.00E-02	3.41E-01		
B5-2	50-32-8	SW8270C	9/2/2009	-14.5	-15	1.10E-02	U	1.10E-02	3.33E-02	2.00E-02	3.41E-01		
B6-1	50-32-8	SW8270C	9/2/2009	-0.5	-1	1.07E-02	U	1.07E-02	3.33E-02	2.00E-02	3.41E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Benzo(a)pyrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6-1	50-32-8	SW8270C	9/2/2009	-0.5	-1	6.49E-02	U	6.49E-02	3.30E-01	2.00E-02	3.41E-01		
B6-2	50-32-8	SW8270C	9/2/2009	-14.5	-15	1.10E-02	U	1.10E-02	3.33E-02	2.00E-02	3.41E-01		
B6-2	50-32-8	SW8270C	9/2/2009	-14.5	-15	6.69E-02	U	6.69E-02	3.30E-01	2.00E-02	3.41E-01		
B7 0-1'	50-32-8	SW8270C	11/11/2009	0	-1	1.03E-02	U	1.03E-02	3.00E-02	2.00E-02	3.41E-01		
B7 0-1'	50-32-8	SW8270C	11/11/2009	0	-1	6.25E-02	U	6.25E-02	3.30E-01	2.00E-02	3.41E-01		
B7 14-15'	50-32-8	SW8270C	11/11/2009	-14	-15	1.06E-02	U	1.06E-02	3.00E-02	2.00E-02	3.41E-01		
B7 14-15'	50-32-8	SW8270C	11/11/2009	-14	-15	6.44E-02	U	6.44E-02	3.30E-01	2.00E-02	3.41E-01		
B8-1	50-32-8	SW8270C	9/2/2009	-1	-1.5	1.09E-02	U	1.09E-02	3.33E-02	2.00E-02	3.41E-01		
B8-1	50-32-8	SW8270C	9/2/2009	-1	-1.5	6.62E-02	U	6.62E-02	3.30E-01	2.00E-02	3.41E-01		
B8-2	50-32-8	SW8270C	9/2/2009	-14	-15	1.06E-02	U	1.06E-02	3.33E-02	2.00E-02	3.41E-01		
B8-2	50-32-8	SW8270C	9/2/2009	-14	-15	6.43E-02	U	6.43E-02	3.30E-01	2.00E-02	3.41E-01		
B9 0-1'	50-32-8	SW8270C	11/11/2009	0	-1	1.09E-02	U	1.09E-02	3.00E-02	2.00E-02	3.41E-01		
B9 0-1'	50-32-8	SW8270C	11/11/2009	0	-1	6.60E-02	U	6.60E-02	3.30E-01	2.00E-02	3.41E-01		
B9 14-15'	50-32-8	SW8270C	11/11/2009	-14	-15	6.41E-02	U	6.41E-02	3.30E-01	2.00E-02	3.41E-01		
B9 14-15'	50-32-8	SW8270C	11/11/2009	-14	-15	1.06E-02	U	1.06E-02	3.00E-02	2.00E-02	3.41E-01		

Benzo(b)fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	205-99-2	SW8270C	8/31/2009	0	-1	1.41E-02	U	1.41E-02	3.33E-02	3.92E-02	3.39E+00		
B1 0-1	205-99-2	SW8270C	8/31/2009	0	-1	9.37E-02	U	9.37E-02	3.30E-01	3.92E-02	3.39E+00		
B1 0-1'	205-99-2	SW8270C	11/11/2009	0	-1	1.45E-02	U	1.45E-02	3.00E-02	3.92E-02	3.39E+00		
B1 0-1'	205-99-2	SW8270C	11/11/2009	0	-1	9.69E-02	U	9.69E-02	3.30E-01	3.92E-02	3.39E+00		
B1 14-15'	205-99-2	SW8270C	11/11/2009	-14	-15	8.72E-02	U	8.72E-02	3.30E-01	3.92E-02	3.39E+00		
B1 14-15'	205-99-2	SW8270C	11/11/2009	-14	-15	1.31E-02	U	1.31E-02	3.00E-02	3.92E-02	3.39E+00		
B10-1	205-99-2	SW8270C	9/2/2009	-2	-3	1.68E-02	U	1.68E-02	3.33E-02	3.92E-02	3.39E+00		
B10-1	205-99-2	SW8270C	9/2/2009	-2	-3	1.12E-01	U	1.12E-01	3.30E-01	3.92E-02	3.39E+00		
B10-2	205-99-2	SW8270C	9/2/2009	-13	-14	1.43E-02	U	1.43E-02	3.33E-02	3.92E-02	3.39E+00		
B10-2	205-99-2	SW8270C	9/2/2009	-13	-14	9.52E-02	U	9.52E-02	3.30E-01	3.92E-02	3.39E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Benzo(b)fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 1-1.5	205-99-2	SW8270C	9/1/2009	-1	-1.5	1.33E-02	U	1.33E-02	3.33E-02	3.92E-02	3.39E+00		
B2 1-1.5	205-99-2	SW8270C	9/1/2009	-1	-1.5	8.86E-02	U	8.86E-02	3.30E-01	3.92E-02	3.39E+00		
B2 21-22.5	205-99-2	SW8270C	9/1/2009	-21	-22.5	1.05E-01	U	1.05E-01	3.30E-01	3.92E-02	3.39E+00		
B2 21-22.5	205-99-2	SW8270C	9/1/2009	-21	-22.5	1.57E-02	U	1.57E-02	3.33E-02	3.92E-02	3.39E+00		
B3 12-13	205-99-2	SW8270C	8/31/2009	-12	-13	1.27E-02	U	1.27E-02	3.33E-02	3.92E-02	3.39E+00		
B3 12-13	205-99-2	SW8270C	8/31/2009	-12	-13	8.43E-02	U	8.43E-02	3.30E-01	3.92E-02	3.39E+00		
B3 2-3	205-99-2	SW8270C	8/31/2009	-2	-3	1.48E-02	U	1.48E-02	3.33E-02	3.92E-02	3.39E+00		
B3 2-3	205-99-2	SW8270C	8/31/2009	-2	-3	9.85E-02	U	9.85E-02	3.30E-01	3.92E-02	3.39E+00		
B4 14-14.5	205-99-2	SW8270C	9/1/2009	-14	-14.5	1.42E-02	U	1.42E-02	3.33E-02	3.92E-02	3.39E+00		
B4 14-14.5	205-99-2	SW8270C	9/1/2009	-14	-14.5	9.46E-02	U	9.46E-02	3.30E-01	3.92E-02	3.39E+00		
B4 2-2.5	205-99-2	SW8270C	9/1/2009	-2	-2.5	1.53E-02	U	1.53E-02	3.33E-02	3.92E-02	3.39E+00		
B4 2-2.5	205-99-2	SW8270C	9/1/2009	-2	-2.5	1.02E-01	U	1.02E-01	3.30E-01	3.92E-02	3.39E+00		
B5-1	205-99-2	SW8270C	9/2/2009	-1	-1.5	1.51E-02	U	1.51E-02	3.33E-02	3.92E-02	3.39E+00		
B5-1	205-99-2	SW8270C	9/2/2009	-1	-1.5	1.01E-01	U	1.00E-01	3.30E-01	3.92E-02	3.39E+00		
B5-2	205-99-2	SW8270C	9/2/2009	-14.5	-15	1.44E-02	U	1.44E-02	3.33E-02	3.92E-02	3.39E+00		
B5-2	205-99-2	SW8270C	9/2/2009	-14.5	-15	9.57E-02	U	9.57E-02	3.30E-01	3.92E-02	3.39E+00		
B6-1	205-99-2	SW8270C	9/2/2009	-0.5	-1	1.39E-02	U	1.39E-02	3.33E-02	3.92E-02	3.39E+00		
B6-1	205-99-2	SW8270C	9/2/2009	-0.5	-1	9.29E-02	U	9.29E-02	3.30E-01	3.92E-02	3.39E+00		
B6-2	205-99-2	SW8270C	9/2/2009	-14.5	-15	9.57E-02	U	9.57E-02	3.30E-01	3.92E-02	3.39E+00		
B6-2	205-99-2	SW8270C	9/2/2009	-14.5	-15	1.44E-02	U	1.44E-02	3.33E-02	3.92E-02	3.39E+00		
B7 0-1'	205-99-2	SW8270C	11/11/2009	0	-1	8.95E-02	U	8.95E-02	3.30E-01	3.92E-02	3.39E+00		
B7 0-1'	205-99-2	SW8270C	11/11/2009	0	-1	1.34E-02	U	1.34E-02	3.00E-02	3.92E-02	3.39E+00		
B7 14-15'	205-99-2	SW8270C	11/11/2009	-14	-15	9.22E-02	U	9.22E-02	3.30E-01	3.92E-02	3.39E+00		
B7 14-15'	205-99-2	SW8270C	11/11/2009	-14	-15	1.38E-02	U	1.38E-02	3.00E-02	3.92E-02	3.39E+00		
B8-1	205-99-2	SW8270C	9/2/2009	-1	-1.5	1.42E-02	U	1.42E-02	3.33E-02	3.92E-02	3.39E+00		
B8-1	205-99-2	SW8270C	9/2/2009	-1	-1.5	9.47E-02	U	9.47E-02	3.30E-01	3.92E-02	3.39E+00		
B8-2	205-99-2	SW8270C	9/2/2009	-14	-15	1.38E-02	U	1.38E-02	3.33E-02	3.92E-02	3.39E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Benzo(b)fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8-2	205-99-2	SW8270C	9/2/2009	-14	-15	9.21E-02	U	9.21E-02	3.30E-01	3.92E-02	3.39E+00		
B9 0-1'	205-99-2	SW8270C	11/11/2009	0	-1	1.42E-02	U	1.42E-02	3.00E-02	3.92E-02	3.39E+00		
B9 0-1'	205-99-2	SW8270C	11/11/2009	0	-1	9.45E-02	U	9.45E-02	3.30E-01	3.92E-02	3.39E+00		
B9 14-15'	205-99-2	SW8270C	11/11/2009	-14	-15	9.18E-02	U	9.18E-02	3.30E-01	3.92E-02	3.39E+00		
B9 14-15'	205-99-2	SW8270C	11/11/2009	-14	-15	1.38E-02	U	1.38E-02	3.00E-02	3.92E-02	3.39E+00		

Benzo(g,h,i)perylene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	191-24-2	SW8270C	8/31/2009	0	-1	1.28E-01	U	1.28E-01	3.30E-01	3.07E+02	2.67E+04		
B1 0-1'	191-24-2	SW8270C	11/11/2009	0	-1	1.32E-01	U	1.32E-01	3.30E-01	3.07E+02	2.67E+04		
B1 14-15'	191-24-2	SW8270C	11/11/2009	-14	-15	1.19E-01	U	1.19E-01	3.30E-01	3.07E+02	2.67E+04		
B10-1	191-24-2	SW8270C	9/2/2009	-2	-3	1.53E-01	U	1.53E-01	3.30E-01	3.07E+02	2.67E+04		
B10-2	191-24-2	SW8270C	9/2/2009	-13	-14	1.30E-01	U	1.30E-01	3.30E-01	3.07E+02	2.67E+04		
B2 1-1.5	191-24-2	SW8270C	9/1/2009	-1	-1.5	1.21E-01	U	1.21E-01	3.30E-01	3.07E+02	2.67E+04		
B2 21-22.5	191-24-2	SW8270C	9/1/2009	-21	-22.5	1.43E-01	U	1.43E-01	3.30E-01	3.07E+02	2.67E+04		
B3 12-13	191-24-2	SW8270C	8/31/2009	-12	-13	1.15E-01	U	1.15E-01	3.30E-01	3.07E+02	2.67E+04		
B3 2-3	191-24-2	SW8270C	8/31/2009	-2	-3	1.35E-01	U	1.34E-01	3.30E-01	3.07E+02	2.67E+04		
B4 14-14.5	191-24-2	SW8270C	9/1/2009	-14	-14.5	1.29E-01	U	1.29E-01	3.30E-01	3.07E+02	2.67E+04		
B4 2-2.5	191-24-2	SW8270C	9/1/2009	-2	-2.5	1.39E-01	U	1.39E-01	3.30E-01	3.07E+02	2.67E+04		
B5-1	191-24-2	SW8270C	9/2/2009	-1	-1.5	1.37E-01	U	1.37E-01	3.30E-01	3.07E+02	2.67E+04		
B5-2	191-24-2	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	3.07E+02	2.67E+04		
B6-1	191-24-2	SW8270C	9/2/2009	-0.5	-1	1.27E-01	U	1.27E-01	3.30E-01	3.07E+02	2.67E+04		
B6-2	191-24-2	SW8270C	9/2/2009	-14.5	-15	1.31E-01	U	1.31E-01	3.30E-01	3.07E+02	2.67E+04		
B7 0-1'	191-24-2	SW8270C	11/11/2009	0	-1	1.22E-01	U	1.22E-01	3.30E-01	3.07E+02	2.67E+04		
B7 14-15'	191-24-2	SW8270C	11/11/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	3.07E+02	2.67E+04		
B8-1	191-24-2	SW8270C	9/2/2009	-1	-1.5	1.29E-01	U	1.29E-01	3.30E-01	3.07E+02	2.67E+04		
B8-2	191-24-2	SW8270C	9/2/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	3.07E+02	2.67E+04		
B9 0-1'	191-24-2	SW8270C	11/11/2009	0	-1	1.29E-01	U	1.29E-01	3.30E-01	3.07E+02	2.67E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Benzo(g,h,i)perylene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B9 14-15'	191-24-2	SW8270C	11/11/2009	-14	-15	1.25E-01	U	1.25E-01	3.30E-01	3.07E+02	2.67E+04		

Benzo(k)fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	207-08-9	SW8270C	8/31/2009	0	-1	1.53E-02	U	1.53E-02	3.33E-02	3.92E-01	3.41E+01		
B1 0-1	207-08-9	SW8270C	8/31/2009	0	-1	4.16E-02	U	4.16E-02	3.30E-01	3.92E-01	3.41E+01		
B1 0-1'	207-08-9	SW8270C	11/11/2009	0	-1	1.59E-02	U	1.59E-02	3.00E-02	3.92E-01	3.41E+01		
B1 0-1'	207-08-9	SW8270C	11/11/2009	0	-1	4.30E-02	U	4.30E-02	3.30E-01	3.92E-01	3.41E+01		
B1 14-15'	207-08-9	SW8270C	11/11/2009	-14	-15	1.43E-02	U	1.43E-02	3.00E-02	3.92E-01	3.41E+01		
B1 14-15'	207-08-9	SW8270C	11/11/2009	-14	-15	3.87E-02	U	3.87E-02	3.30E-01	3.92E-01	3.41E+01		
B10-1	207-08-9	SW8270C	9/2/2009	-2	-3	4.97E-02	U	4.97E-02	3.30E-01	3.92E-01	3.41E+01		
B10-1	207-08-9	SW8270C	9/2/2009	-2	-3	1.83E-02	U	1.83E-02	3.33E-02	3.92E-01	3.41E+01		
B10-2	207-08-9	SW8270C	9/2/2009	-13	-14	1.56E-02	U	1.56E-02	3.33E-02	3.92E-01	3.41E+01		
B10-2	207-08-9	SW8270C	9/2/2009	-13	-14	4.23E-02	U	4.23E-02	3.30E-01	3.92E-01	3.41E+01		
B2 1-1.5	207-08-9	SW8270C	9/1/2009	-1	-1.5	1.45E-02	U	1.45E-02	3.33E-02	3.92E-01	3.41E+01		
B2 1-1.5	207-08-9	SW8270C	9/1/2009	-1	-1.5	3.93E-02	U	3.93E-02	3.30E-01	3.92E-01	3.41E+01		
B2 21-22.5	207-08-9	SW8270C	9/1/2009	-21	-22.5	4.66E-02	U	4.66E-02	3.30E-01	3.92E-01	3.41E+01		
B2 21-22.5	207-08-9	SW8270C	9/1/2009	-21	-22.5	1.72E-02	U	1.72E-02	3.33E-02	3.92E-01	3.41E+01		
B3 12-13	207-08-9	SW8270C	8/31/2009	-12	-13	3.74E-02	U	3.74E-02	3.30E-01	3.92E-01	3.41E+01		
B3 12-13	207-08-9	SW8270C	8/31/2009	-12	-13	1.38E-02	U	1.38E-02	3.33E-02	3.92E-01	3.41E+01		
B3 2-3	207-08-9	SW8270C	8/31/2009	-2	-3	4.38E-02	U	4.38E-02	3.30E-01	3.92E-01	3.41E+01		
B3 2-3	207-08-9	SW8270C	8/31/2009	-2	-3	1.61E-02	U	1.61E-02	3.33E-02	3.92E-01	3.41E+01		
B4 14-14.5	207-08-9	SW8270C	9/1/2009	-14	-14.5	1.55E-02	U	1.55E-02	3.33E-02	3.92E-01	3.41E+01		
B4 14-14.5	207-08-9	SW8270C	9/1/2009	-14	-14.5	4.20E-02	U	4.20E-02	3.30E-01	3.92E-01	3.41E+01		
B4 2-2.5	207-08-9	SW8270C	9/1/2009	-2	-2.5	1.67E-02	U	1.67E-02	3.33E-02	3.92E-01	3.41E+01		
B4 2-2.5	207-08-9	SW8270C	9/1/2009	-2	-2.5	4.54E-02	U	4.54E-02	3.30E-01	3.92E-01	3.41E+01		
B5-1	207-08-9	SW8270C	9/2/2009	-1	-1.5	1.65E-02	U	1.65E-02	3.33E-02	3.92E-01	3.41E+01		
B5-1	207-08-9	SW8270C	9/2/2009	-1	-1.5	4.46E-02	U	4.46E-02	3.30E-01	3.92E-01	3.41E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Benzo(k)fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B5-2	207-08-9	SW8270C	9/2/2009	-14.5	-15	1.57E-02	U	1.57E-02	3.33E-02	3.92E-01	3.41E+01		
B5-2	207-08-9	SW8270C	9/2/2009	-14.5	-15	4.25E-02	U	4.25E-02	3.30E-01	3.92E-01	3.41E+01		
B6-1	207-08-9	SW8270C	9/2/2009	-0.5	-1	4.12E-02	U	4.12E-02	3.30E-01	3.92E-01	3.41E+01		
B6-1	207-08-9	SW8270C	9/2/2009	-0.5	-1	1.52E-02	U	1.52E-02	3.33E-02	3.92E-01	3.41E+01		
B6-2	207-08-9	SW8270C	9/2/2009	-14.5	-15	1.57E-02	U	1.57E-02	3.33E-02	3.92E-01	3.41E+01		
B6-2	207-08-9	SW8270C	9/2/2009	-14.5	-15	4.25E-02	U	4.25E-02	3.30E-01	3.92E-01	3.41E+01		
B7 0-1'	207-08-9	SW8270C	11/11/2009	0	-1	3.97E-02	U	3.97E-02	3.30E-01	3.92E-01	3.41E+01		
B7 0-1'	207-08-9	SW8270C	11/11/2009	0	-1	1.47E-02	U	1.47E-02	3.00E-02	3.92E-01	3.41E+01		
B7 14-15'	207-08-9	SW8270C	11/11/2009	-14	-15	1.51E-02	U	1.51E-02	3.00E-02	3.92E-01	3.41E+01		
B7 14-15'	207-08-9	SW8270C	11/11/2009	-14	-15	4.10E-02	U	4.10E-02	3.30E-01	3.92E-01	3.41E+01		
B8-1	207-08-9	SW8270C	9/2/2009	-1	-1.5	1.55E-02	U	1.55E-02	3.33E-02	3.92E-01	3.41E+01		
B8-1	207-08-9	SW8270C	9/2/2009	-1	-1.5	4.21E-02	U	4.21E-02	3.30E-01	3.92E-01	3.41E+01		
B8-2	207-08-9	SW8270C	9/2/2009	-14	-15	1.51E-02	U	1.51E-02	3.33E-02	3.92E-01	3.41E+01		
B8-2	207-08-9	SW8270C	9/2/2009	-14	-15	4.09E-02	U	4.09E-02	3.30E-01	3.92E-01	3.41E+01		
B9 0-1'	207-08-9	SW8270C	11/11/2009	0	-1	1.55E-02	U	1.55E-02	3.00E-02	3.92E-01	3.41E+01		
B9 0-1'	207-08-9	SW8270C	11/11/2009	0	-1	4.20E-02	U	4.20E-02	3.30E-01	3.92E-01	3.41E+01		
B9 14-15'	207-08-9	SW8270C	11/11/2009	-14	-15	4.08E-02	U	4.08E-02	3.30E-01	3.92E-01	3.41E+01		
B9 14-15'	207-08-9	SW8270C	11/11/2009	-14	-15	1.50E-02	U	1.50E-02	3.00E-02	3.92E-01	3.41E+01		

Benzoic acid

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	65-85-0	SW8270C	8/31/2009	0	-1	3.30E-01	U	3.30E-01	6.60E-01	4.09E+04	4.09E+06		
B1 0-1'	65-85-0	SW8270C	11/11/2009	0	-1	3.41E-01	U	3.41E-01	6.60E-01	4.09E+04	4.09E+06		
B1 14-15'	65-85-0	SW8270C	11/11/2009	-14	-15	3.07E-01	U	3.07E-01	6.60E-01	4.09E+04	4.09E+06		
B10-1	65-85-0	SW8270C	9/2/2009	-2	-3	3.94E-01	U	3.94E-01	6.60E-01	4.09E+04	4.09E+06		
B10-2	65-85-0	SW8270C	9/2/2009	-13	-14	3.35E-01	U	3.35E-01	6.60E-01	4.09E+04	4.09E+06		
B2 1-1.5	65-85-0	SW8270C	9/1/2009	-1	-1.5	3.12E-01	U	3.12E-01	6.60E-01	4.09E+04	4.09E+06		
B2 21-22.5	65-85-0	SW8270C	9/1/2009	-21	-22.5	3.69E-01	U	3.69E-01	6.60E-01	4.09E+04	4.09E+06		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Benzoic acid

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B3 12-13	65-85-0	SW8270C	8/31/2009	-12	-13	2.97E-01	U	2.97E-01	6.60E-01	4.09E+04	4.09E+06		
B3 2-3	65-85-0	SW8270C	8/31/2009	-2	-3	3.47E-01	U	3.47E-01	6.60E-01	4.09E+04	4.09E+06		
B4 14-14.5	65-85-0	SW8270C	9/1/2009	-14	-14.5	3.33E-01	U	3.33E-01	6.60E-01	4.09E+04	4.09E+06		
B4 2-2.5	65-85-0	SW8270C	9/1/2009	-2	-2.5	3.60E-01	U	3.60E-01	6.60E-01	4.09E+04	4.09E+06		
B5-1	65-85-0	SW8270C	9/2/2009	-1	-1.5	3.54E-01	U	3.54E-01	6.60E-01	4.09E+04	4.09E+06		
B5-2	65-85-0	SW8270C	9/2/2009	-14.5	-15	3.37E-01	U	3.37E-01	6.60E-01	4.09E+04	4.09E+06		
B6-1	65-85-0	SW8270C	9/2/2009	-0.5	-1	3.27E-01	U	3.27E-01	6.60E-01	4.09E+04	4.09E+06		
B6-2	65-85-0	SW8270C	9/2/2009	-14.5	-15	3.37E-01	U	3.37E-01	6.60E-01	4.09E+04	4.09E+06		
B7 0-1'	65-85-0	SW8270C	11/11/2009	0	-1	3.15E-01	U	3.15E-01	6.60E-01	4.09E+04	4.09E+06		
B7 14-15'	65-85-0	SW8270C	11/11/2009	-14	-15	3.25E-01	U	3.25E-01	6.60E-01	4.09E+04	4.09E+06		
B8-1	65-85-0	SW8270C	9/2/2009	-1	-1.5	3.34E-01	U	3.34E-01	6.60E-01	4.09E+04	4.09E+06		
B8-2	65-85-0	SW8270C	9/2/2009	-14	-15	3.25E-01	U	3.25E-01	6.60E-01	4.09E+04	4.09E+06		
B9 0-1'	65-85-0	SW8270C	11/11/2009	0	-1	3.33E-01	U	3.33E-01	6.60E-01	4.09E+04	4.09E+06		
B9 14-15'	65-85-0	SW8270C	11/11/2009	-14	-15	3.24E-01	U	3.23E-01	6.60E-01	4.09E+04	4.09E+06		

Benzyl alcohol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	100-51-6	SW8270C	8/31/2009	0	-1	1.85E-01	U	1.85E-01	6.60E-01	3.07E+03	3.07E+05		
B1 0-1'	100-51-6	SW8270C	11/11/2009	0	-1	1.91E-01	U	1.91E-01	6.60E-01	3.07E+03	3.07E+05		
B1 14-15'	100-51-6	SW8270C	11/11/2009	-14	-15	1.72E-01	U	1.72E-01	6.60E-01	3.07E+03	3.07E+05		
B10-1	100-51-6	SW8270C	9/2/2009	-2	-3	2.21E-01	U	2.21E-01	6.60E-01	3.07E+03	3.07E+05		
B10-2	100-51-6	SW8270C	9/2/2009	-13	-14	1.88E-01	U	1.88E-01	6.60E-01	3.07E+03	3.07E+05		
B2 1-1.5	100-51-6	SW8270C	9/1/2009	-1	-1.5	1.75E-01	U	1.75E-01	6.60E-01	3.07E+03	3.07E+05		
B2 21-22.5	100-51-6	SW8270C	9/1/2009	-21	-22.5	2.07E-01	U	2.07E-01	6.60E-01	3.07E+03	3.07E+05		
B3 12-13	100-51-6	SW8270C	8/31/2009	-12	-13	1.66E-01	U	1.66E-01	6.60E-01	3.07E+03	3.07E+05		
B3 2-3	100-51-6	SW8270C	8/31/2009	-2	-3	1.94E-01	U	1.94E-01	6.60E-01	3.07E+03	3.07E+05		
B4 14-14.5	100-51-6	SW8270C	9/1/2009	-14	-14.5	1.87E-01	U	1.87E-01	6.60E-01	3.07E+03	3.07E+05		
B4 2-2.5	100-51-6	SW8270C	9/1/2009	-2	-2.5	2.02E-01	U	2.02E-01	6.60E-01	3.07E+03	3.07E+05		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Benzyl alcohol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B5-1	100-51-6	SW8270C	9/2/2009	-1	-1.5	1.98E-01	U	1.98E-01	6.60E-01	3.07E+03	3.07E+05		
B5-2	100-51-6	SW8270C	9/2/2009	-14.5	-15	1.89E-01	U	1.89E-01	6.60E-01	3.07E+03	3.07E+05		
B6-1	100-51-6	SW8270C	9/2/2009	-0.5	-1	1.83E-01	U	1.83E-01	6.60E-01	3.07E+03	3.07E+05		
B6-2	100-51-6	SW8270C	9/2/2009	-14.5	-15	1.89E-01	U	1.89E-01	6.60E-01	3.07E+03	3.07E+05		
B7 0-1'	100-51-6	SW8270C	11/11/2009	0	-1	1.76E-01	U	1.77E-01	6.60E-01	3.07E+03	3.07E+05		
B7 14-15'	100-51-6	SW8270C	11/11/2009	-14	-15	1.82E-01	U	1.82E-01	6.60E-01	3.07E+03	3.07E+05		
B8-1	100-51-6	SW8270C	9/2/2009	-1	-1.5	1.87E-01	U	1.87E-01	6.60E-01	3.07E+03	3.07E+05		
B8-2	100-51-6	SW8270C	9/2/2009	-14	-15	1.82E-01	U	1.82E-01	6.60E-01	3.07E+03	3.07E+05		
B9 0-1'	100-51-6	SW8270C	11/11/2009	0	-1	1.86E-01	U	1.86E-01	6.60E-01	3.07E+03	3.07E+05		
B9 14-15'	100-51-6	SW8270C	11/11/2009	-14	-15	1.81E-01	U	1.81E-01	6.60E-01	3.07E+03	3.07E+05		

Beryllium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-41-7	SW6010B	8/31/2009	0	-1	7.21E-01		5.12E-02	5.00E-01	1.85E+00	2.67E+02	4.01E-01	7.80E-01
B1 0-1'	7440-41-7	SW6010B	11/11/2009	0	-1	7.37E-01		5.29E-02	2.00E-01	1.85E+00	2.67E+02	4.01E-01	7.80E-01
B1 14-15'	7440-41-7	SW6010B	11/11/2009	-14	-15	3.74E-01		4.76E-02	2.00E-01	1.85E+00	2.67E+02		
B10-1	7440-41-7	SW6010B	9/2/2009	-2	-3	7.35E-01		6.10E-02	5.00E-01	1.85E+00	2.67E+02	5.27E-01	8.53E-01
B10-2	7440-41-7	SW6010B	9/2/2009	-13	-14	4.60E-01		5.19E-02	5.00E-01	1.85E+00	2.67E+02		
B2 1-1.5	7440-41-7	SW6010B	9/1/2009	-1	-1.5	5.71E-01		4.84E-02	5.00E-01	1.85E+00	2.67E+02	5.27E-01	8.53E-01
B2 21-22.5	7440-41-7	SW6010B	9/1/2009	-21	-22.5	7.67E-01		5.72E-02	5.00E-01	1.85E+00	2.67E+02		
B3 12-13	7440-41-7	SW6010B	8/31/2009	-12	-13	6.27E-01		4.60E-02	5.00E-01	1.85E+00	2.67E+02		
B3 2-3	7440-41-7	SW6010B	8/31/2009	-2	-3	6.36E-01		5.38E-02	5.00E-01	1.85E+00	2.67E+02	5.27E-01	8.53E-01
B4 14-14.5	7440-41-7	SW6010B	9/1/2009	-14	-14.5	9.27E-01		5.16E-02	5.00E-01	1.85E+00	2.67E+02		
B4 2-2.5	7440-41-7	SW6010B	9/1/2009	-2	-2.5	7.60E-01		5.58E-02	5.00E-01	1.85E+00	2.67E+02	5.27E-01	8.53E-01
B5-1	7440-41-7	SW6010B	9/2/2009	-1	-1.5	7.61E-01		5.49E-02	5.00E-01	1.85E+00	2.67E+02	5.27E-01	8.53E-01
B5-2	7440-41-7	SW6010B	9/2/2009	-14.5	-15	1.24E+00		5.23E-02	5.00E-01	1.85E+00	2.67E+02		
B6-1	7440-41-7	SW6010B	9/2/2009	-0.5	-1	7.03E-01		5.07E-02	5.00E-01	1.85E+00	2.67E+02	4.01E-01	7.80E-01
B6-2	7440-41-7	SW6010B	9/2/2009	-14.5	-15	1.92E+00		5.23E-02	5.00E-01	1.85E+00	2.67E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Beryllium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 0-1'	7440-41-7	SW6010B	11/11/2009	0	-1	5.42E-01		4.88E-02	2.00E-01	1.85E+00	2.67E+02	4.01E-01	7.80E-01
B7 14-15'	7440-41-7	SW6010B	11/11/2009	-14	-15	5.03E-02	U	5.03E-02	2.00E-01	1.85E+00	2.67E+02		
B8-1	7440-41-7	SW6010B	9/2/2009	-1	-1.5	4.23E-01		5.17E-02	5.00E-01	1.85E+00	2.67E+02	5.27E-01	8.53E-01
B8-2	7440-41-7	SW6010B	9/2/2009	-14	-15	7.54E-01		5.03E-02	5.00E-01	1.85E+00	2.67E+02		
B9 0-1'	7440-41-7	SW6010B	11/11/2009	0	-1	6.73E-01		5.16E-02	2.00E-01	1.85E+00	2.67E+02	4.01E-01	7.80E-01
B9 14-15'	7440-41-7	SW6010B	11/11/2009	-14	-15	7.78E-01		5.01E-02	2.00E-01	1.85E+00	2.67E+02		

Bis(2-chloroethoxy)methane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	111-91-1	SW8270C	8/31/2009	0	-1	1.06E-02	U	1.06E-02	3.33E-02	2.60E-02	9.02E-01		
B1 0-1	111-91-1	SW8270C	8/31/2009	0	-1	1.61E-01	U	1.60E-01	3.30E-01	2.60E-02	9.02E-01		
B1 0-1'	111-91-1	SW8270C	11/11/2009	0	-1	1.09E-02	U	1.09E-02	3.30E-02	2.60E-02	9.02E-01		
B1 14-15'	111-91-1	SW8270C	11/11/2009	-14	-15	9.80E-03	U	9.85E-03	3.30E-02	2.60E-02	9.02E-01		
B10-1	111-91-1	SW8270C	9/2/2009	-2	-3	1.26E-02	U	1.26E-02	3.33E-02	2.60E-02	9.02E-01		
B10-1	111-91-1	SW8270C	9/2/2009	-2	-3	1.91E-01	U	1.91E-01	3.30E-01	2.60E-02	9.02E-01		
B10-2	111-91-1	SW8270C	9/2/2009	-13	-14	1.07E-02	U	1.07E-02	3.33E-02	2.60E-02	9.02E-01		
B10-2	111-91-1	SW8270C	9/2/2009	-13	-14	1.63E-01	U	1.63E-01	3.30E-01	2.60E-02	9.02E-01		
B2 1-1.5	111-91-1	SW8270C	9/1/2009	-1	-1.5	9.98E-03	U	9.98E-03	3.33E-02	2.60E-02	9.02E-01		
B2 1-1.5	111-91-1	SW8270C	9/1/2009	-1	-1.5	1.52E-01	U	1.52E-01	3.30E-01	2.60E-02	9.02E-01		
B2 21-22.5	111-91-1	SW8270C	9/1/2009	-21	-22.5	1.79E-01	U	1.79E-01	3.30E-01	2.60E-02	9.02E-01		
B2 21-22.5	111-91-1	SW8270C	9/1/2009	-21	-22.5	1.18E-02	U	1.18E-02	3.33E-02	2.60E-02	9.02E-01		
B3 12-13	111-91-1	SW8270C	8/31/2009	-12	-13	1.44E-01	U	1.44E-01	3.30E-01	2.60E-02	9.02E-01		
B3 12-13	111-91-1	SW8270C	8/31/2009	-12	-13	9.49E-03	U	9.49E-03	3.33E-02	2.60E-02	9.02E-01		
B3 2-3	111-91-1	SW8270C	8/31/2009	-2	-3	1.11E-02	U	1.11E-02	3.33E-02	2.60E-02	9.02E-01		
B3 2-3	111-91-1	SW8270C	8/31/2009	-2	-3	1.69E-01	U	1.69E-01	3.30E-01	2.60E-02	9.02E-01		
B4 14-14.5	111-91-1	SW8270C	9/1/2009	-14	-14.5	1.62E-01	U	1.62E-01	3.30E-01	2.60E-02	9.02E-01		
B4 14-14.5	111-91-1	SW8270C	9/1/2009	-14	-14.5	1.07E-02	U	1.07E-02	3.33E-02	2.60E-02	9.02E-01		
B4 2-2.5	111-91-1	SW8270C	9/1/2009	-2	-2.5	1.75E-01	U	1.75E-01	3.30E-01	2.60E-02	9.02E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Bis(2-chloroethoxy)methane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 2-2.5	111-91-1	SW8270C	9/1/2009	-2	-2.5	1.15E-02	U	1.15E-02	3.33E-02	2.60E-02	9.02E-01		
B5-1	111-91-1	SW8270C	9/2/2009	-1	-1.5	1.13E-02	U	1.13E-02	3.33E-02	2.60E-02	9.02E-01		
B5-1	111-91-1	SW8270C	9/2/2009	-1	-1.5	1.72E-01	U	1.72E-01	3.30E-01	2.60E-02	9.02E-01		
B5-2	111-91-1	SW8270C	9/2/2009	-14.5	-15	1.64E-01	U	1.64E-01	3.30E-01	2.60E-02	9.02E-01		
B5-2	111-91-1	SW8270C	9/2/2009	-14.5	-15	1.08E-02	U	1.08E-02	3.33E-02	2.60E-02	9.02E-01		
B6-1	111-91-1	SW8270C	9/2/2009	-0.5	-1	1.05E-02	U	1.05E-02	3.33E-02	2.60E-02	9.02E-01		
B6-1	111-91-1	SW8270C	9/2/2009	-0.5	-1	1.59E-01	U	1.59E-01	3.30E-01	2.60E-02	9.02E-01		
B6-2	111-91-1	SW8270C	9/2/2009	-14.5	-15	1.08E-02	U	1.08E-02	3.33E-02	2.60E-02	9.02E-01		
B6-2	111-91-1	SW8270C	9/2/2009	-14.5	-15	1.64E-01	U	1.64E-01	3.30E-01	2.60E-02	9.02E-01		
B7 0-1'	111-91-1	SW8270C	11/11/2009	0	-1	1.01E-02	U	1.01E-02	3.30E-02	2.60E-02	9.02E-01		
B7 14-15'	111-91-1	SW8270C	11/11/2009	-14	-15	1.04E-02	U	1.04E-02	3.30E-02	2.60E-02	9.02E-01		
B8-1	111-91-1	SW8270C	9/2/2009	-1	-1.5	1.62E-01	U	1.62E-01	3.30E-01	2.60E-02	9.02E-01		
B8-1	111-91-1	SW8270C	9/2/2009	-1	-1.5	1.07E-02	U	1.07E-02	3.33E-02	2.60E-02	9.02E-01		
B8-2	111-91-1	SW8270C	9/2/2009	-14	-15	1.04E-02	U	1.04E-02	3.33E-02	2.60E-02	9.02E-01		
B8-2	111-91-1	SW8270C	9/2/2009	-14	-15	1.58E-01	U	1.58E-01	3.30E-01	2.60E-02	9.02E-01		
B9 0-1'	111-91-1	SW8270C	11/11/2009	0	-1	1.07E-02	U	1.07E-02	3.30E-02	2.60E-02	9.02E-01		
B9 14-15'	111-91-1	SW8270C	11/11/2009	-14	-15	1.04E-02	U	1.04E-02	3.30E-02	2.60E-02	9.02E-01		

Bis(2-chloroethyl)ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	111-44-4	SW8270C	8/31/2009	0	-1	1.67E-01	U	1.67E-01	3.30E-01	2.15E-01	3.16E-01		
B1 0-1'	111-44-4	SW8270C	11/11/2009	0	-1	1.50E-02	U	1.50E-03	3.30E-02	2.15E-01	3.16E-01		
B1 0-1 R	111-44-4	SW8270C	8/31/2009	0	-1	1.46E-02	U	1.46E-02	1.00E-01	2.15E-01	3.16E-01		
B1 0-1' R	111-44-4	SW8270C	11/11/2009	0	-1	1.50E-02	U	1.50E-03	3.30E-02	2.15E-01	3.16E-01		
B1 14-15'	111-44-4	SW8270C	11/11/2009	-14	-15	1.38E-02	U	1.38E-02	3.30E-02	2.15E-01	3.16E-01		
B1 14-15' R	111-44-4	SW8270C	11/11/2009	-14	-15	1.38E-02	U	1.38E-02	3.30E-02	2.15E-01	3.16E-01		
B10-1	111-44-4	SW8270C	9/2/2009	-2	-3	2.00E-01	U	2.00E-01	3.30E-01	2.15E-01	3.16E-01		
B10-1 R	111-44-4	SW8270C	9/2/2009	-2	-3	1.64E-02	U	1.64E-02	1.00E-01	2.15E-01	3.16E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Bis(2-chloroethyl)ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-2	111-44-4	SW8270C	9/2/2009	-13	-14	1.70E-01	U	1.70E-01	3.30E-01	2.15E-01	3.16E-01		
B10-2 R	111-44-4	SW8270C	9/2/2009	-13	-14	1.47E-02	U	1.47E-02	1.00E-01	2.15E-01	3.16E-01		
B2 1-1.5	111-44-4	SW8270C	9/1/2009	-1	-1.5	1.58E-01	U	1.58E-01	3.30E-01	2.15E-01	3.16E-01		
B2 1-1.5 R	111-44-4	SW8270C	9/1/2009	-1	-1.5	1.40E-02	U	1.40E-02	1.00E-01	2.15E-01	3.16E-01		
B2 21-22.5	111-44-4	SW8270C	9/1/2009	-21	-22.5	1.87E-01	U	1.87E-01	3.30E-01	2.15E-01	3.16E-01		
B2 21-22.5	111-44-4	SW8270C	9/1/2009	-21	-22.5	1.57E-02	U	1.57E-02	1.00E-01	2.15E-01	3.16E-01		
B3 12-13	111-44-4	SW8270C	8/31/2009	-12	-13	1.51E-01	U	1.51E-01	3.30E-01	2.15E-01	3.16E-01		
B3 12-13 R	111-44-4	SW8270C	8/31/2009	-12	-13	1.33E-02	U	1.33E-02	1.00E-01	2.15E-01	3.16E-01		
B3 2-3	111-44-4	SW8270C	8/31/2009	-2	-3	1.76E-01	U	1.76E-01	3.30E-01	2.15E-01	3.16E-01		
B3 2-3 R	111-44-4	SW8270C	8/31/2009	-2	-3	1.51E-02	U	1.51E-02	1.00E-01	2.15E-01	3.16E-01		
B4 14-14.5	111-44-4	SW8270C	9/1/2009	-14	-14.5	1.69E-01	U	1.69E-01	3.30E-01	2.15E-01	3.16E-01		
B4 14-14.5	111-44-4	SW8270C	9/1/2009	-14	-14.5	1.47E-02	U	1.47E-02	1.00E-01	2.15E-01	3.16E-01		
B4 2-2.5	111-44-4	SW8270C	9/1/2009	-2	-2.5	1.83E-01	U	1.83E-01	3.30E-01	2.15E-01	3.16E-01		
B4 2-2.5 R	111-44-4	SW8270C	9/1/2009	-2	-2.5	1.55E-02	U	1.55E-02	1.00E-01	2.15E-01	3.16E-01		
B5-1	111-44-4	SW8270C	9/2/2009	-1	-1.5	1.80E-01	U	1.80E-01	3.30E-01	2.15E-01	3.16E-01		
B5-1 R	111-44-4	SW8270C	9/2/2009	-1	-1.5	1.54E-02	U	1.56E-02	1.00E-01	2.15E-01	3.16E-01		
B5-2	111-44-4	SW8270C	9/2/2009	-14.5	-15	1.71E-01	U	1.71E-01	3.30E-01	2.15E-01	3.16E-01		
B5-2 R	111-44-4	SW8270C	9/2/2009	-14.5	-15	1.48E-02	U	1.48E-02	1.00E-01	2.15E-01	3.16E-01		
B6-1	111-44-4	SW8270C	9/2/2009	-0.5	-1	1.66E-01	U	1.66E-01	3.30E-01	2.15E-01	3.16E-01		
B6-1 R	111-44-4	SW8270C	9/2/2009	-0.5	-1	1.45E-02	U	1.45E-02	1.00E-01	2.15E-01	3.16E-01		
B6-2	111-44-4	SW8270C	9/2/2009	-14.5	-15	1.71E-01	U	1.71E-01	3.30E-01	2.15E-01	3.16E-01		
B6-2 R	111-44-4	SW8270C	9/2/2009	-14.5	-15	1.48E-02	U	1.48E-02	1.00E-01	2.15E-01	3.16E-01		
B7 0-1'	111-44-4	SW8270C	11/11/2009	0	-1	1.41E-02	U	1.41E-02	3.30E-02	2.15E-01	3.16E-01		
B7 0-1' R	111-44-4	SW8270C	11/11/2009	0	-1	1.41E-02	U	1.41E-02	3.30E-02	2.15E-01	3.16E-01		
B7 14-15'	111-44-4	SW8270C	11/11/2009	-14	-15	1.45E-02	U	1.45E-02	3.30E-02	2.15E-01	3.16E-01		
B7 14-15' R	111-44-4	SW8270C	11/11/2009	-14	-15	1.45E-02	U	1.45E-02	3.30E-02	2.15E-01	3.16E-01		
B8-1	111-44-4	SW8270C	9/2/2009	-1	-1.5	1.69E-01	U	1.69E-01	3.30E-01	2.15E-01	3.16E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Bis(2-chloroethyl)ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8-1 R	111-44-4	SW8270C	9/2/2009	-1	-1.5	1.47E-02	U	1.47E-02	1.00E-01	2.15E-01	3.16E-01		
B8-2	111-44-4	SW8270C	9/2/2009	-14	-15	1.65E-01	U	1.65E-01	3.30E-01	2.15E-01	3.16E-01		
B8-2 R	111-44-4	SW8270C	9/2/2009	-14	-15	1.45E-02	U	1.45E-02	1.00E-01	2.15E-01	3.16E-01		
B9 0-1'	111-44-4	SW8270C	11/11/2009	0	-1	1.47E-02	U	1.47E-02	3.30E-02	2.15E-01	3.16E-01		
B9 0-1' R	111-44-4	SW8270C	11/11/2009	0	-1	1.47E-02	U	1.47E-02	3.30E-02	2.15E-01	3.16E-01		
B9 14-15'	111-44-4	SW8270C	11/11/2009	-14	-15	1.43E-02	U	1.43E-02	3.30E-02	2.15E-01	3.16E-01		
B9 14-15' R	111-44-4	SW8270C	11/11/2009	-14	-15	1.43E-02	U	1.43E-02	3.30E-02	2.15E-01	3.16E-01		

Bis(2-chloroisopropyl)ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	108-60-1	SW8270C	8/31/2009	0	-1	1.71E-01	U	1.71E-01	3.30E-01	4.09E+00	1.55E+02		
B1 0-1'	108-60-1	SW8270C	11/11/2009	0	-1	1.77E-01	U	1.77E-01	3.30E-01	4.09E+00	1.55E+02		
B1 14-15'	108-60-1	SW8270C	11/11/2009	-14	-15	1.59E-01	U	1.59E-01	3.30E-01	4.09E+00	1.55E+02		
B10-1	108-60-1	SW8270C	9/2/2009	-2	-3	2.04E-01	U	2.04E-01	3.30E-01	4.09E+00	1.55E+02		
B10-2	108-60-1	SW8270C	9/2/2009	-13	-14	1.74E-01	U	1.74E-01	3.30E-01	4.09E+00	1.55E+02		
B2 1-1.5	108-60-1	SW8270C	9/1/2009	-1	-1.5	1.62E-01	U	1.62E-01	3.30E-01	4.09E+00	1.55E+02		
B2 21-22.5	108-60-1	SW8270C	9/1/2009	-21	-22.5	1.91E-01	U	1.91E-01	3.30E-01	4.09E+00	1.55E+02		
B3 12-13	108-60-1	SW8270C	8/31/2009	-12	-13	1.54E-01	U	1.54E-01	3.30E-01	4.09E+00	1.55E+02		
B3 2-3	108-60-1	SW8270C	8/31/2009	-2	-3	1.80E-01	U	1.80E-01	3.30E-01	4.09E+00	1.55E+02		
B4 14-14.5	108-60-1	SW8270C	9/1/2009	-14	-14.5	1.72E-01	U	1.73E-01	3.30E-01	4.09E+00	1.55E+02		
B4 2-2.5	108-60-1	SW8270C	9/1/2009	-2	-2.5	1.86E-01	U	1.86E-01	3.30E-01	4.09E+00	1.55E+02		
B5-1	108-60-1	SW8270C	9/2/2009	-1	-1.5	1.83E-01	U	1.83E-01	3.30E-01	4.09E+00	1.55E+02		
B5-2	108-60-1	SW8270C	9/2/2009	-14.5	-15	1.75E-01	U	1.75E-01	3.30E-01	4.09E+00	1.55E+02		
B6-1	108-60-1	SW8270C	9/2/2009	-0.5	-1	1.69E-01	U	1.69E-01	3.30E-01	4.09E+00	1.55E+02		
B6-2	108-60-1	SW8270C	9/2/2009	-14.5	-15	1.75E-01	U	1.75E-01	3.30E-01	4.09E+00	1.55E+02		
B7 0-1'	108-60-1	SW8270C	11/11/2009	0	-1	1.63E-01	U	1.63E-01	3.30E-01	4.09E+00	1.55E+02		
B7 14-15'	108-60-1	SW8270C	11/11/2009	-14	-15	1.68E-01	U	1.68E-01	3.30E-01	4.09E+00	1.55E+02		
B8-1	108-60-1	SW8270C	9/2/2009	-1	-1.5	1.73E-01	U	1.73E-01	3.30E-01	4.09E+00	1.55E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Bis(2-chloroisopropyl)ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8-2	108-60-1	SW8270C	9/2/2009	-14	-15	1.68E-01	U	1.68E-01	3.30E-01	4.09E+00	1.55E+02		
B9 0-1'	108-60-1	SW8270C	11/11/2009	0	-1	1.72E-01	U	1.72E-01	3.30E-01	4.09E+00	1.55E+02		
B9 14-15'	108-60-1	SW8270C	11/11/2009	-14	-15	1.67E-01	U	1.67E-01	3.30E-01	4.09E+00	1.55E+02		

Bis(2-ethylhexyl)phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	117-81-7	SW8270C	8/31/2009	0	-1	1.57E-01	U	1.57E-01	3.30E-01	6.00E-01	6.53E+01		
B1 0-1'	117-81-7	SW8270C	11/11/2009	0	-1	1.62E-01	U	1.62E-01	3.30E-01	6.00E-01	6.53E+01		
B1 14-15'	117-81-7	SW8270C	11/11/2009	-14	-15	1.46E-01	U	1.46E-01	3.30E-01	6.00E-01	6.53E+01		
B10-1	117-81-7	SW8270C	9/2/2009	-2	-3	1.87E-01	U	1.87E-01	3.30E-01	6.00E-01	6.53E+01		
B10-2	117-81-7	SW8270C	9/2/2009	-13	-14	1.59E-01	U	1.59E-01	3.30E-01	6.00E-01	6.53E+01		
B2 1-1.5	117-81-7	SW8270C	9/1/2009	-1	-1.5	1.48E-01	U	1.48E-01	3.30E-01	6.00E-01	6.53E+01		
B2 21-22.5	117-81-7	SW8270C	9/1/2009	-21	-22.5	1.76E-01	U	1.76E-01	3.30E-01	6.00E-01	6.53E+01		
B3 12-13	117-81-7	SW8270C	8/31/2009	-12	-13	1.41E-01	U	1.41E-01	3.30E-01	6.00E-01	6.53E+01		
B3 2-3	117-81-7	SW8270C	8/31/2009	-2	-3	1.65E-01	U	1.65E-01	3.30E-01	6.00E-01	6.53E+01		
B4 14-14.5	117-81-7	SW8270C	9/1/2009	-14	-14.5	1.59E-01	U	1.58E-01	3.30E-01	6.00E-01	6.53E+01		
B4 2-2.5	117-81-7	SW8270C	9/1/2009	-2	-2.5	1.71E-01	U	1.71E-01	3.30E-01	6.00E-01	6.53E+01		
B5-1	117-81-7	SW8270C	9/2/2009	-1	-1.5	1.68E-01	U	1.68E-01	3.30E-01	6.00E-01	6.53E+01		
B5-2	117-81-7	SW8270C	9/2/2009	-14.5	-15	1.60E-01	U	1.60E-01	3.30E-01	6.00E-01	6.53E+01		
B6-1	117-81-7	SW8270C	9/2/2009	-0.5	-1	1.56E-01	U	1.56E-01	3.30E-01	6.00E-01	6.53E+01		
B6-2	117-81-7	SW8270C	9/2/2009	-14.5	-15	1.60E-01	U	1.60E-01	3.30E-01	6.00E-01	6.53E+01		
B7 0-1'	117-81-7	SW8270C	11/11/2009	0	-1	1.50E-01	U	1.50E-01	3.30E-01	6.00E-01	6.53E+01		
B7 14-15'	117-81-7	SW8270C	11/11/2009	-14	-15	1.55E-01	U	1.54E-01	3.30E-01	6.00E-01	6.53E+01		
B8-1	117-81-7	SW8270C	9/2/2009	-1	-1.5	1.59E-01	U	1.59E-01	3.30E-01	6.00E-01	6.53E+01		
B8-2	117-81-7	SW8270C	9/2/2009	-14	-15	1.54E-01	U	1.54E-01	3.30E-01	6.00E-01	6.53E+01		
B9 0-1'	117-81-7	SW8270C	11/11/2009	0	-1	1.58E-01	U	1.58E-01	3.30E-01	6.00E-01	6.53E+01		
B9 14-15'	117-81-7	SW8270C	11/11/2009	-14	-15	1.54E-01	U	1.54E-01	3.30E-01	6.00E-01	6.53E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Bromobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	108-86-1	SW8260B	8/31/2009	0	-1	1.24E-03	U	1.24E-03	5.00E-03	2.04E+02	1.59E+02		
B1 0-1'	108-86-1	SW8260B	11/11/2009	0	-1	1.86E-03	U	1.86E-03	5.00E-03	2.04E+02	1.59E+02		
B1 14-15'	108-86-1	SW8260B	11/11/2009	-14	-15	1.36E-03	U	1.36E-03	5.00E-03	2.04E+02	1.59E+02		
B10-1	108-86-1	SW8260B	9/2/2009	-2	-3	1.48E-03	U	1.48E-03	5.00E-03	2.04E+02	1.59E+02		
B10-2	108-86-1	SW8260B	9/2/2009	-13	-14	1.26E-03	U	1.26E-03	5.00E-03	2.04E+02	1.59E+02		
B2 1-1.5	108-86-1	SW8260B	9/1/2009	-1	-1.5	1.18E-03	U	1.18E-03	5.00E-03	2.04E+02	1.59E+02		
B2 21-22.5	108-86-1	SW8260B	9/1/2009	-21	-22.5	1.39E-03	U	1.39E-03	5.00E-03	2.04E+02	1.59E+02		
B3 12-13	108-86-1	SW8260B	8/31/2009	-12	-13	1.12E-03	U	1.12E-03	5.00E-03	2.04E+02	1.59E+02		
B3 2-3	108-86-1	SW8260B	8/31/2009	-2	-3	1.31E-03	U	1.31E-03	5.00E-03	2.04E+02	1.59E+02		
B4 14.5-15	108-86-1	SW8260B	9/1/2009	-14.5	-15	1.27E-03	U	1.27E-03	5.00E-03	2.04E+02	1.59E+02		
B4 2-2.5	108-86-1	SW8260B	9/1/2009	-2	-2.5	1.36E-03	U	1.36E-03	5.00E-03	2.04E+02	1.59E+02		
B5-1	108-86-1	SW8260B	9/2/2009	-1	-1.5	1.33E-03	U	1.33E-03	5.00E-03	2.04E+02	1.59E+02		
B5-2	108-86-1	SW8260B	9/2/2009	-14.5	-15	1.27E-03	U	1.27E-03	5.00E-03	2.04E+02	1.59E+02		
B6-1	108-86-1	SW8260B	9/2/2009	-0.5	-1	1.23E-03	U	1.23E-03	5.00E-03	2.04E+02	1.59E+02		
B6-2	108-86-1	SW8260B	9/2/2009	-14.5	-15	1.27E-03	U	1.27E-03	5.00E-03	2.04E+02	1.59E+02		
B7 0-1'	108-86-1	SW8260B	11/11/2009	0	-1	1.47E-03	U	1.47E-03	5.00E-03	2.04E+02	1.59E+02		
B7 14-15'	108-86-1	SW8260B	11/11/2009	-14	-15	1.60E-03	U	1.60E-03	5.00E-03	2.04E+02	1.59E+02		
B8-1	108-86-1	SW8260B	9/2/2009	-1	-1.5	1.26E-03	U	1.26E-03	5.00E-03	2.04E+02	1.59E+02		
B8-2	108-86-1	SW8260B	9/2/2009	-14	-15	1.22E-03	U	1.22E-03	5.00E-03	2.04E+02	1.59E+02		
B8-3	108-86-1	SW8260B	9/2/2009	-8	-8.5	1.33E-03	U	1.33E-03	5.00E-03	2.04E+02	1.59E+02		
B9 0-1'	108-86-1	SW8260B	11/11/2009	0	-1	1.72E-03	U	1.72E-03	5.00E-03	2.04E+02	1.59E+02		
B9 14-15'	108-86-1	SW8260B	11/11/2009	-14	-15	1.58E-03	U	1.58E-03	5.00E-03	2.04E+02	1.59E+02		

Bromochloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	74-97-5	SW8260B	8/31/2009	0	-1	1.13E-03	U	1.13E-03	5.00E-03	4.09E+02	3.44E+02		
B1 0-1'	74-97-5	SW8260B	11/11/2009	0	-1	1.69E-03	U	1.69E-03	5.00E-03	4.09E+02	3.44E+02		
B1 14-15'	74-97-5	SW8260B	11/11/2009	-14	-15	1.23E-03	U	1.23E-03	5.00E-03	4.09E+02	3.44E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Bromochloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-1	74-97-5	SW8260B	9/2/2009	-2	-3	1.35E-03	U	1.35E-03	5.00E-03	4.09E+02	3.44E+02		
B10-2	74-97-5	SW8260B	9/2/2009	-13	-14	1.15E-03	U	1.15E-03	5.00E-03	4.09E+02	3.44E+02		
B2 1-1.5	74-97-5	SW8260B	9/1/2009	-1	-1.5	1.07E-03	U	1.07E-03	5.00E-03	4.09E+02	3.44E+02		
B2 21-22.5	74-97-5	SW8260B	9/1/2009	-21	-22.5	1.26E-03	U	1.26E-03	5.00E-03	4.09E+02	3.44E+02		
B3 12-13	74-97-5	SW8260B	8/31/2009	-12	-13	1.01E-03	U	1.01E-03	5.00E-03	4.09E+02	3.44E+02		
B3 2-3	74-97-5	SW8260B	8/31/2009	-2	-3	1.19E-03	U	1.19E-03	5.00E-03	4.09E+02	3.44E+02		
B4 14.5-15	74-97-5	SW8260B	9/1/2009	-14.5	-15	1.15E-03	U	1.15E-03	5.00E-03	4.09E+02	3.44E+02		
B4 2-2.5	74-97-5	SW8260B	9/1/2009	-2	-2.5	1.23E-03	U	1.23E-03	5.00E-03	4.09E+02	3.44E+02		
B5-1	74-97-5	SW8260B	9/2/2009	-1	-1.5	1.21E-03	U	1.21E-03	5.00E-03	4.09E+02	3.44E+02		
B5-2	74-97-5	SW8260B	9/2/2009	-14.5	-15	1.15E-03	U	1.15E-03	5.00E-03	4.09E+02	3.44E+02		
B6-1	74-97-5	SW8260B	9/2/2009	-0.5	-1	1.12E-03	U	1.12E-03	5.00E-03	4.09E+02	3.44E+02		
B6-2	74-97-5	SW8260B	9/2/2009	-14.5	-15	1.15E-03	U	1.15E-03	5.00E-03	4.09E+02	3.44E+02		
B7 0-1'	74-97-5	SW8260B	11/11/2009	0	-1	1.33E-03	U	1.33E-03	5.00E-03	4.09E+02	3.44E+02		
B7 14-15'	74-97-5	SW8260B	11/11/2009	-14	-15	1.45E-03	U	1.45E-03	5.00E-03	4.09E+02	3.44E+02		
B8-1	74-97-5	SW8260B	9/2/2009	-1	-1.5	1.14E-03	U	1.14E-03	5.00E-03	4.09E+02	3.44E+02		
B8-2	74-97-5	SW8260B	9/2/2009	-14	-15	1.11E-03	U	1.11E-03	5.00E-03	4.09E+02	3.44E+02		
B8-3	74-97-5	SW8260B	9/2/2009	-8	-8.5	1.20E-03	U	1.20E-03	5.00E-03	4.09E+02	3.44E+02		
B9 0-1'	74-97-5	SW8260B	11/11/2009	0	-1	1.57E-03	U	1.57E-03	5.00E-03	4.09E+02	3.44E+02		
B9 14-15'	74-97-5	SW8260B	11/11/2009	-14	-15	1.42E-03	U	1.42E-03	5.00E-03	4.09E+02	3.44E+02		

Bromodichloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	75-27-4	SW8260B	8/31/2009	0	-1	1.05E-03	U	1.05E-03	5.00E-03	4.62E-01	9.23E+01		
B1 0-1'	75-27-4	SW8260B	11/11/2009	0	-1	1.56E-03	U	1.56E-03	5.00E-03	4.62E-01	9.23E+01		
B1 14-15'	75-27-4	SW8260B	11/11/2009	-14	-15	1.14E-03	U	1.14E-03	5.00E-03	4.62E-01	9.23E+01		
B10-1	75-27-4	SW8260B	9/2/2009	-2	-3	1.25E-03	U	1.25E-03	5.00E-03	4.62E-01	9.23E+01		
B10-2	75-27-4	SW8260B	9/2/2009	-13	-14	1.06E-03	U	1.06E-03	5.00E-03	4.62E-01	9.23E+01		
B2 1-1.5	75-27-4	SW8260B	9/1/2009	-1	-1.5	9.88E-04	U	9.88E-04	5.00E-03	4.62E-01	9.23E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Bromodichloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 21-22.5	75-27-4	SW8260B	9/1/2009	-21	-22.5	1.17E-03	U	1.17E-03	5.00E-03	4.62E-01	9.23E+01		
B3 12-13	75-27-4	SW8260B	8/31/2009	-12	-13	9.40E-04	U	9.40E-04	5.00E-03	4.62E-01	9.23E+01		
B3 2-3	75-27-4	SW8260B	8/31/2009	-2	-3	1.10E-03	U	1.10E-03	5.00E-03	4.62E-01	9.23E+01		
B4 14.5-15	75-27-4	SW8260B	9/1/2009	-14.5	-15	1.07E-03	U	1.07E-03	5.00E-03	4.62E-01	9.23E+01		
B4 2-2.5	75-27-4	SW8260B	9/1/2009	-2	-2.5	1.14E-03	U	1.14E-03	5.00E-03	4.62E-01	9.23E+01		
B5-1	75-27-4	SW8260B	9/2/2009	-1	-1.5	1.12E-03	U	1.12E-03	5.00E-03	4.62E-01	9.23E+01		
B5-2	75-27-4	SW8260B	9/2/2009	-14.5	-15	1.07E-03	U	1.07E-03	5.00E-03	4.62E-01	9.23E+01		
B6-1	75-27-4	SW8260B	9/2/2009	-0.5	-1	1.04E-03	U	1.04E-03	5.00E-03	4.62E-01	9.23E+01		
B6-2	75-27-4	SW8260B	9/2/2009	-14.5	-15	1.07E-03	U	1.07E-03	5.00E-03	4.62E-01	9.23E+01		
B7 0-1'	75-27-4	SW8260B	11/11/2009	0	-1	1.23E-03	U	1.23E-03	5.00E-03	4.62E-01	9.23E+01		
B7 14-15'	75-27-4	SW8260B	11/11/2009	-14	-15	1.35E-03	U	1.35E-03	5.00E-03	4.62E-01	9.23E+01		
B8-1	75-27-4	SW8260B	9/2/2009	-1	-1.5	1.06E-03	U	1.06E-03	5.00E-03	4.62E-01	9.23E+01		
B8-2	75-27-4	SW8260B	9/2/2009	-14	-15	1.03E-03	U	1.03E-03	5.00E-03	4.62E-01	9.23E+01		
B8-3	75-27-4	SW8260B	9/2/2009	-8	-8.5	1.11E-03	U	1.11E-03	5.00E-03	4.62E-01	9.23E+01		
B9 0-1'	75-27-4	SW8260B	11/11/2009	0	-1	1.44E-03	U	1.44E-03	5.00E-03	4.62E-01	9.23E+01		
B9 14-15'	75-27-4	SW8260B	11/11/2009	-14	-15	1.32E-03	U	1.32E-03	5.00E-03	4.62E-01	9.23E+01		

Bromoform

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	75-25-2	SW8260B	8/31/2009	0	-1	7.64E-04	U	7.64E-04	5.00E-03	3.62E+00	8.49E+01		
B1 0-1'	75-25-2	SW8260B	11/11/2009	0	-1	1.14E-03	U	1.14E-03	5.00E-03	3.62E+00	8.49E+01		
B1 14-15'	75-25-2	SW8260B	11/11/2009	-14	-15	8.32E-04	U	8.32E-04	5.00E-03	3.62E+00	8.49E+01		
B10-1	75-25-2	SW8260B	9/2/2009	-2	-3	9.11E-04	U	9.11E-04	5.00E-03	3.62E+00	8.49E+01		
B10-2	75-25-2	SW8260B	9/2/2009	-13	-14	7.76E-04	U	7.76E-04	5.00E-03	3.62E+00	8.49E+01		
B2 1-1.5	75-25-2	SW8260B	9/1/2009	-1	-1.5	7.22E-04	U	7.22E-04	5.00E-03	3.62E+00	8.49E+01		
B2 21-22.5	75-25-2	SW8260B	9/1/2009	-21	-22.5	8.54E-04	U	8.54E-04	5.00E-03	3.62E+00	8.49E+01		
B3 12-13	75-25-2	SW8260B	8/31/2009	-12	-13	6.87E-04	U	6.87E-04	5.00E-03	3.62E+00	8.49E+01		
B3 2-3	75-25-2	SW8260B	8/31/2009	-2	-3	8.03E-04	U	8.03E-04	5.00E-03	3.62E+00	8.49E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Bromoform

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 14.5-15	75-25-2	SW8260B	9/1/2009	-14.5	-15	7.80E-04	U	7.80E-04	5.00E-03	3.62E+00	8.49E+01		
B4 2-2.5	75-25-2	SW8260B	9/1/2009	-2	-2.5	8.33E-04	U	8.33E-04	5.00E-03	3.62E+00	8.49E+01		
B5-1	75-25-2	SW8260B	9/2/2009	-1	-1.5	8.19E-04	U	8.19E-04	5.00E-03	3.62E+00	8.49E+01		
B5-2	75-25-2	SW8260B	9/2/2009	-14.5	-15	7.80E-04	U	7.80E-04	5.00E-03	3.62E+00	8.49E+01		
B6-1	75-25-2	SW8260B	9/2/2009	-0.5	-1	7.57E-04	U	7.57E-04	5.00E-03	3.62E+00	8.49E+01		
B6-2	75-25-2	SW8260B	9/2/2009	-14.5	-15	7.80E-04	U	7.80E-04	5.00E-03	3.62E+00	8.49E+01		
B7 0-1'	75-25-2	SW8260B	11/11/2009	0	-1	8.98E-04	U	8.98E-04	5.00E-03	3.62E+00	8.49E+01		
B7 14-15'	75-25-2	SW8260B	11/11/2009	-14	-15	9.84E-04	U	9.84E-04	5.00E-03	3.62E+00	8.49E+01		
B8-1	75-25-2	SW8260B	9/2/2009	-1	-1.5	7.72E-04	U	7.72E-04	5.00E-03	3.62E+00	8.49E+01		
B8-2	75-25-2	SW8260B	9/2/2009	-14	-15	7.51E-04	U	7.51E-04	5.00E-03	3.62E+00	8.49E+01		
B8-3	75-25-2	SW8260B	9/2/2009	-8	-8.5	8.14E-04	U	8.14E-04	5.00E-03	3.62E+00	8.49E+01		
B9 0-1'	75-25-2	SW8260B	11/11/2009	0	-1	1.06E-03	U	1.06E-03	5.00E-03	3.62E+00	8.49E+01		
B9 14-15'	75-25-2	SW8260B	11/11/2009	-14	-15	9.70E-04	U	9.70E-04	5.00E-03	3.62E+00	8.49E+01		

Bromomethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	74-83-9	SW8260B	8/31/2009	0	-1	2.05E-03	U	2.05E-03	5.00E-03	1.43E+01	4.93E+00		
B1 0-1'	74-83-9	SW8260B	11/11/2009	0	-1	2.09E-03	U	2.09E-03	5.00E-03	1.43E+01	4.93E+00		
B1 14-15'	74-83-9	SW8260B	11/11/2009	-14	-15	1.54E-03	U	1.54E-03	5.00E-03	1.43E+01	4.93E+00		
B10-1	74-83-9	SW8260B	9/2/2009	-2	-3	2.44E-03	U	2.44E-03	5.00E-03	1.43E+01	4.93E+00		
B10-2	74-83-9	SW8260B	9/2/2009	-13	-14	2.08E-03	U	2.08E-03	5.00E-03	1.43E+01	4.93E+00		
B2 1-1.5	74-83-9	SW8260B	9/1/2009	-1	-1.5	1.93E-03	U	1.93E-03	5.00E-03	1.43E+01	4.93E+00		
B2 21-22.5	74-83-9	SW8260B	9/1/2009	-21	-22.5	2.29E-03	U	2.29E-03	5.00E-03	1.43E+01	4.93E+00		
B3 12-13	74-83-9	SW8260B	8/31/2009	-12	-13	1.84E-03	U	1.84E-03	5.00E-03	1.43E+01	4.93E+00		
B3 2-3	74-83-9	SW8260B	8/31/2009	-2	-3	2.15E-03	U	2.15E-03	5.00E-03	1.43E+01	4.93E+00		
B4 14.5-15	74-83-9	SW8260B	9/1/2009	-14.5	-15	2.09E-03	U	2.09E-03	5.00E-03	1.43E+01	4.93E+00		
B4 2-2.5	74-83-9	SW8260B	9/1/2009	-2	-2.5	2.23E-03	U	2.23E-03	5.00E-03	1.43E+01	4.93E+00		
B5-1	74-83-9	SW8260B	9/2/2009	-1	-1.5	2.19E-03	U	2.19E-03	5.00E-03	1.43E+01	4.93E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Bromomethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B5-2	74-83-9	SW8260B	9/2/2009	-14.5	-15	2.09E-03	U	2.09E-03	5.00E-03	1.43E+01	4.93E+00		
B6-1	74-83-9	SW8260B	9/2/2009	-0.5	-1	2.03E-03	U	2.03E-03	5.00E-03	1.43E+01	4.93E+00		
B6-2	74-83-9	SW8260B	9/2/2009	-14.5	-15	2.09E-03	U	2.09E-03	5.00E-03	1.43E+01	4.93E+00		
B7 0-1'	74-83-9	SW8260B	11/11/2009	0	-1	1.65E-03	U	1.65E-03	5.00E-03	1.43E+01	4.93E+00		
B7 14-15'	74-83-9	SW8260B	11/11/2009	-14	-15	1.81E-03	U	1.81E-03	5.00E-03	1.43E+01	4.93E+00		
B8-1	74-83-9	SW8260B	9/2/2009	-1	-1.5	2.07E-03	U	2.07E-03	5.00E-03	1.43E+01	4.93E+00		
B8-2	74-83-9	SW8260B	9/2/2009	-14	-15	2.01E-03	U	2.01E-03	5.00E-03	1.43E+01	4.93E+00		
B8-3	74-83-9	SW8260B	9/2/2009	-8	-8.5	2.18E-03	U	2.18E-03	5.00E-03	1.43E+01	4.93E+00		
B9 0-1'	74-83-9	SW8260B	11/11/2009	0	-1	1.95E-03	U	1.95E-03	5.00E-03	1.43E+01	4.93E+00		
B9 14-15'	74-83-9	SW8260B	11/11/2009	-14	-15	1.79E-03	U	1.79E-03	5.00E-03	1.43E+01	4.93E+00		

Butyl benzyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	85-68-7	SW8270C	8/31/2009	0	-1	1.59E-01	U	1.59E-01	3.30E-01	2.04E+03	2.04E+05		
B1 0-1'	85-68-7	SW8270C	11/11/2009	0	-1	1.65E-01	U	1.65E-01	3.30E-01	2.04E+03	2.04E+05		
B1 14-15'	85-68-7	SW8270C	11/11/2009	-14	-15	1.48E-01	U	1.48E-01	3.30E-01	2.04E+03	2.04E+05		
B10-1	85-68-7	SW8270C	9/2/2009	-2	-3	1.90E-01	U	1.90E-01	3.30E-01	2.04E+03	2.04E+05		
B10-2	85-68-7	SW8270C	9/2/2009	-13	-14	1.62E-01	U	1.62E-01	3.30E-01	2.04E+03	2.04E+05		
B2 1-1.5	85-68-7	SW8270C	9/1/2009	-1	-1.5	1.50E-01	U	1.51E-01	3.30E-01	2.04E+03	2.04E+05		
B2 21-22.5	85-68-7	SW8270C	9/1/2009	-21	-22.5	1.78E-01	U	1.78E-01	3.30E-01	2.04E+03	2.04E+05		
B3 12-13	85-68-7	SW8270C	8/31/2009	-12	-13	1.43E-01	U	1.43E-01	3.30E-01	2.04E+03	2.04E+05		
B3 2-3	85-68-7	SW8270C	8/31/2009	-2	-3	1.68E-01	U	1.67E-01	3.30E-01	2.04E+03	2.04E+05		
B4 14-14.5	85-68-7	SW8270C	9/1/2009	-14	-14.5	1.61E-01	U	1.61E-01	3.30E-01	2.04E+03	2.04E+05		
B4 2-2.5	85-68-7	SW8270C	9/1/2009	-2	-2.5	1.74E-01	U	1.74E-01	3.30E-01	2.04E+03	2.04E+05		
B5-1	85-68-7	SW8270C	9/2/2009	-1	-1.5	1.71E-01	U	1.71E-01	3.30E-01	2.04E+03	2.04E+05		
B5-2	85-68-7	SW8270C	9/2/2009	-14.5	-15	1.63E-01	U	1.63E-01	3.30E-01	2.04E+03	2.04E+05		
B6-1	85-68-7	SW8270C	9/2/2009	-0.5	-1	1.58E-01	U	1.58E-01	3.30E-01	2.04E+03	2.04E+05		
B6-2	85-68-7	SW8270C	9/2/2009	-14.5	-15	1.63E-01	U	1.63E-01	3.30E-01	2.04E+03	2.04E+05		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Butyl benzyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 0-1'	85-68-7	SW8270C	11/11/2009	0	-1	1.52E-01	U	1.52E-01	3.30E-01	2.04E+03	2.04E+05		
B7 14-15'	85-68-7	SW8270C	11/11/2009	-14	-15	1.57E-01	U	1.57E-01	3.30E-01	2.04E+03	2.04E+05		
B8-1	85-68-7	SW8270C	9/2/2009	-1	-1.5	1.61E-01	U	1.61E-01	3.30E-01	2.04E+03	2.04E+05		
B8-2	85-68-7	SW8270C	9/2/2009	-14	-15	1.57E-01	U	1.57E-01	3.30E-01	2.04E+03	2.04E+05		
B9 0-1'	85-68-7	SW8270C	11/11/2009	0	-1	1.61E-01	U	1.61E-01	3.30E-01	2.04E+03	2.04E+05		
B9 14-15'	85-68-7	SW8270C	11/11/2009	-14	-15	1.56E-01	U	1.56E-01	3.30E-01	2.04E+03	2.04E+05		

Cadmium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-43-9	SW6010B	8/31/2009	0	-1	8.14E-02	U	8.14E-02	5.00E-01	5.00E-01	1.46E+03	2.26E-01	1.40E+00
B1 0-1'	7440-43-9	SW6010B	11/11/2009	0	-1	8.41E-02	U	8.41E-02	5.00E-01	5.00E-01	1.46E+03	2.26E-01	1.40E+00
B1 14-15'	7440-43-9	SW6010B	11/11/2009	-14	-15	7.57E-02	U	7.57E-02	5.00E-01	5.00E-01	1.46E+03		
B10-1	7440-43-9	SW6010B	9/2/2009	-2	-3	9.71E-02	U	9.71E-02	5.00E-01	5.00E-01	1.46E+03	1.11E-01	4.00E-01
B10-2	7440-43-9	SW6010B	9/2/2009	-13	-14	8.26E-02	U	8.26E-02	5.00E-01	5.00E-01	1.46E+03		
B2 1-1.5	7440-43-9	SW6010B	9/1/2009	-1	-1.5	7.69E-02	U	7.69E-02	5.00E-01	5.00E-01	1.46E+03	1.11E-01	4.00E-01
B2 21-22.5	7440-43-9	SW6010B	9/1/2009	-21	-22.5	9.10E-02	U	9.10E-02	5.00E-01	5.00E-01	1.46E+03		
B3 12-13	7440-43-9	SW6010B	8/31/2009	-12	-13	7.32E-02	U	7.32E-02	5.00E-01	5.00E-01	1.46E+03		
B3 2-3	7440-43-9	SW6010B	8/31/2009	-2	-3	8.56E-02	U	8.56E-02	5.00E-01	5.00E-01	1.46E+03	1.11E-01	4.00E-01
B4 14-14.5	7440-43-9	SW6010B	9/1/2009	-14	-14.5	8.22E-02	U	8.22E-02	5.00E-01	5.00E-01	1.46E+03		
B4 2-2.5	7440-43-9	SW6010B	9/1/2009	-2	-2.5	8.87E-02	U	8.87E-02	5.00E-01	5.00E-01	1.46E+03	1.11E-01	4.00E-01
B5-1	7440-43-9	SW6010B	9/2/2009	-1	-1.5	8.73E-02	U	8.73E-02	5.00E-01	5.00E-01	1.46E+03	1.11E-01	4.00E-01
B5-2	7440-43-9	SW6010B	9/2/2009	-14.5	-15	8.31E-02	U	8.31E-02	5.00E-01	5.00E-01	1.46E+03		
B6-1	7440-43-9	SW6010B	9/2/2009	-0.5	-1	8.06E-02	U	8.06E-02	5.00E-01	5.00E-01	1.46E+03	2.26E-01	1.40E+00
B6-2	7440-43-9	SW6010B	9/2/2009	-14.5	-15	8.31E-02	U	8.31E-02	5.00E-01	5.00E-01	1.46E+03		
B7 0-1'	7440-43-9	SW6010B	11/11/2009	0	-1	7.77E-02	U	7.77E-02	5.00E-01	5.00E-01	1.46E+03	2.26E-01	1.40E+00
B7 14-15'	7440-43-9	SW6010B	11/11/2009	-14	-15	8.01E-02	U	8.01E-02	5.00E-01	5.00E-01	1.46E+03		
B8-1	7440-43-9	SW6010B	9/2/2009	-1	-1.5	8.23E-02	U	8.23E-02	5.00E-01	5.00E-01	1.46E+03	1.11E-01	4.00E-01
B8-2	7440-43-9	SW6010B	9/2/2009	-14	-15	8.00E-02	U	8.00E-02	5.00E-01	5.00E-01	1.46E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Cadmium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B9 0-1'	7440-43-9	SW6010B	11/11/2009	0	-1	8.21E-02	U	8.21E-02	5.00E-01	5.00E-01	1.46E+03	2.26E-01	1.40E+00
B9 14-15'	7440-43-9	SW6010B	11/11/2009	-14	-15	7.97E-02	U	7.97E-02	5.00E-01	5.00E-01	1.46E+03		

Calcium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-70-2	SW6010B	8/31/2009	0	-1	6.80E+02		1.74E+00	5.00E+00			2.26E-01	1.40E+00
B1 0-1'	7440-70-2	SW6010B	11/11/2009	0	-1	7.88E+02		1.80E+00	5.00E+00			2.26E-01	1.40E+00
B1 14-15'	7440-70-2	SW6010B	11/11/2009	-14	-15	8.32E+02		1.62E+00	5.00E+00				
B10-1	7440-70-2	SW6010B	9/2/2009	-2	-3	6.53E+02		2.08E+00	5.00E+00			1.11E-01	4.00E-01
B10-2	7440-70-2	SW6010B	9/2/2009	-13	-14	1.18E+03		1.77E+00	5.00E+00				
B2 1-1.5	7440-70-2	SW6010B	9/1/2009	-1	-1.5	7.25E+02		1.65E+00	5.00E+00			1.11E-01	4.00E-01
B2 21-22.5	7440-70-2	SW6010B	9/1/2009	-21	-22.5	2.18E+03		1.95E+00	5.00E+00				
B3 12-13	7440-70-2	SW6010B	8/31/2009	-12	-13	4.48E+02		1.57E+00	5.00E+00				
B3 2-3	7440-70-2	SW6010B	8/31/2009	-2	-3	2.78E+02		1.83E+00	5.00E+00			1.11E-01	4.00E-01
B4 14-14.5	7440-70-2	SW6010B	9/1/2009	-14	-14.5	1.79E+03		1.76E+00	5.00E+00				
B4 2-2.5	7440-70-2	SW6010B	9/1/2009	-2	-2.5	1.85E+02		1.90E+00	5.00E+00			1.11E-01	4.00E-01
B5-1	7440-70-2	SW6010B	9/2/2009	-1	-1.5	1.35E+03		1.87E+00	5.00E+00			1.11E-01	4.00E-01
B5-2	7440-70-2	SW6010B	9/2/2009	-14.5	-15	2.28E+03		1.78E+00	5.00E+00				
B6-1	7440-70-2	SW6010B	9/2/2009	-0.5	-1	1.13E+03		1.73E+00	5.00E+00			2.26E-01	1.40E+00
B6-2	7440-70-2	SW6010B	9/2/2009	-14.5	-15	2.02E+03		1.78E+00	5.00E+00				
B7 0-1'	7440-70-2	SW6010B	11/11/2009	0	-1	8.99E+02		1.67E+00	5.00E+00			2.26E-01	1.40E+00
B7 14-15'	7440-70-2	SW6010B	11/11/2009	-14	-15	1.70E+02		1.72E+00	5.00E+00				
B8-1	7440-70-2	SW6010B	9/2/2009	-1	-1.5	3.30E+02		1.76E+00	5.00E+00			1.11E-01	4.00E-01
B8-2	7440-70-2	SW6010B	9/2/2009	-14	-15	7.70E+02		1.71E+00	5.00E+00				
B9 0-1'	7440-70-2	SW6010B	11/11/2009	0	-1	4.49E+02		1.76E+00	5.00E+00			2.26E-01	1.40E+00
B9 14-15'	7440-70-2	SW6010B	11/11/2009	-14	-15	8.60E+02		1.71E+00	5.00E+00				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Carbon disulfide

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	75-15-0	SW8260B	8/31/2009	0	-1	1.34E-03	U	1.34E-03	5.00E-03	1.02E+03	1.49E+03		
B1 0-1'	75-15-0	SW8260B	11/11/2009	0	-1	1.42E-03	U	1.42E-03	5.00E-03	1.02E+03	1.49E+03		
B1 14-15'	75-15-0	SW8260B	11/11/2009	-14	-15	1.03E-03	U	1.03E-03	5.00E-03	1.02E+03	1.49E+03		
B10-1	75-15-0	SW8260B	9/2/2009	-2	-3	1.60E-03	U	1.60E-03	5.00E-03	1.02E+03	1.49E+03		
B10-2	75-15-0	SW8260B	9/2/2009	-13	-14	1.36E-03	U	1.36E-03	5.00E-03	1.02E+03	1.49E+03		
B2 1-1.5	75-15-0	SW8260B	9/1/2009	-1	-1.5	1.26E-03	U	1.26E-03	5.00E-03	1.02E+03	1.49E+03		
B2 21-22.5	75-15-0	SW8260B	9/1/2009	-21	-22.5	1.50E-03	U	1.50E-03	5.00E-03	1.02E+03	1.49E+03		
B3 12-13	75-15-0	SW8260B	8/31/2009	-12	-13	1.20E-03	U	1.20E-03	5.00E-03	1.02E+03	1.49E+03		
B3 2-3	75-15-0	SW8260B	8/31/2009	-2	-3	1.41E-03	U	1.41E-03	5.00E-03	1.02E+03	1.49E+03		
B4 14.5-15	75-15-0	SW8260B	9/1/2009	-14.5	-15	1.37E-03	U	1.37E-03	5.00E-03	1.02E+03	1.49E+03		
B4 2-2.5	75-15-0	SW8260B	9/1/2009	-2	-2.5	1.46E-03	U	1.46E-03	5.00E-03	1.02E+03	1.49E+03		
B5-1	75-15-0	SW8260B	9/2/2009	-1	-1.5	1.43E-03	U	1.43E-03	5.00E-03	1.02E+03	1.49E+03		
B5-2	75-15-0	SW8260B	9/2/2009	-14.5	-15	1.37E-03	U	1.37E-03	5.00E-03	1.02E+03	1.49E+03		
B6-1	75-15-0	SW8260B	9/2/2009	-0.5	-1	1.32E-03	U	1.32E-03	5.00E-03	1.02E+03	1.49E+03		
B6-2	75-15-0	SW8260B	9/2/2009	-14.5	-15	1.37E-03	U	1.37E-03	5.00E-03	1.02E+03	1.49E+03		
B7 0-1'	75-15-0	SW8260B	11/11/2009	0	-1	1.11E-03	U	1.11E-03	5.00E-03	1.02E+03	1.49E+03		
B7 14-15'	75-15-0	SW8260B	11/11/2009	-14	-15	1.22E-03	U	1.22E-03	5.00E-03	1.02E+03	1.49E+03		
B8-1	75-15-0	SW8260B	9/2/2009	-1	-1.5	1.35E-03	U	1.35E-03	5.00E-03	1.02E+03	1.49E+03		
B8-2	75-15-0	SW8260B	9/2/2009	-14	-15	1.31E-03	U	1.31E-03	5.00E-03	1.02E+03	1.49E+03		
B8-3	75-15-0	SW8260B	9/2/2009	-8	-8.5	1.43E-03	U	1.43E-03	5.00E-03	1.02E+03	1.49E+03		
B9 0-1'	75-15-0	SW8260B	11/11/2009	0	-1	1.31E-03	U	1.31E-03	5.00E-03	1.02E+03	1.49E+03		
B9 14-15'	75-15-0	SW8260B	11/11/2009	-14	-15	1.21E-03	U	1.21E-03	5.00E-03	1.02E+03	1.49E+03		

Carbon tetrachloride

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	56-23-5	SW8260B	8/31/2009	0	-1	8.48E-04	U	8.48E-04	5.00E-03	5.00E-01	6.30E-01		
B1 0-1'	56-23-5	SW8260B	11/11/2009	0	-1	1.26E-03	U	1.26E-03	5.00E-03	5.00E-01	6.30E-01		
B1 14-15'	56-23-5	SW8260B	11/11/2009	-14	-15	9.24E-04	U	9.24E-04	5.00E-03	5.00E-01	6.30E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Carbon tetrachloride

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-1	56-23-5	SW8260B	9/2/2009	-2	-3	1.01E-03	U	1.01E-03	5.00E-03	5.00E-01	6.30E-01		
B10-2	56-23-5	SW8260B	9/2/2009	-13	-14	8.61E-04	U	8.61E-04	5.00E-03	5.00E-01	6.30E-01		
B2 1-1.5	56-23-5	SW8260B	9/1/2009	-1	-1.5	8.01E-04	U	8.01E-04	5.00E-03	5.00E-01	6.30E-01		
B2 21-22.5	56-23-5	SW8260B	9/1/2009	-21	-22.5	9.48E-04	U	9.48E-04	5.00E-03	5.00E-01	6.30E-01		
B3 12-13	56-23-5	SW8260B	8/31/2009	-12	-13	7.62E-04	U	7.62E-04	5.00E-03	5.00E-01	6.30E-01		
B3 2-3	56-23-5	SW8260B	8/31/2009	-2	-3	8.91E-04	U	8.91E-04	5.00E-03	5.00E-01	6.30E-01		
B4 14.5-15	56-23-5	SW8260B	9/1/2009	-14.5	-15	8.66E-04	U	8.66E-04	5.00E-03	5.00E-01	6.30E-01		
B4 2-2.5	56-23-5	SW8260B	9/1/2009	-2	-2.5	9.24E-04	U	9.24E-04	5.00E-03	5.00E-01	6.30E-01		
B5-1	56-23-5	SW8260B	9/2/2009	-1	-1.5	9.09E-04	U	9.09E-04	5.00E-03	5.00E-01	6.30E-01		
B5-2	56-23-5	SW8260B	9/2/2009	-14.5	-15	8.66E-04	U	8.66E-04	5.00E-03	5.00E-01	6.30E-01		
B6-1	56-23-5	SW8260B	9/2/2009	-0.5	-1	8.40E-04	U	8.40E-04	5.00E-03	5.00E-01	6.30E-01		
B6-2	56-23-5	SW8260B	9/2/2009	-14.5	-15	8.66E-04	U	8.66E-04	5.00E-03	5.00E-01	6.30E-01		
B7 0-1'	56-23-5	SW8260B	11/11/2009	0	-1	9.97E-04	U	9.97E-04	5.00E-03	5.00E-01	6.30E-01		
B7 14-15'	56-23-5	SW8260B	11/11/2009	-14	-15	1.09E-03	U	1.09E-03	5.00E-03	5.00E-01	6.30E-01		
B8-1	56-23-5	SW8260B	9/2/2009	-1	-1.5	8.57E-04	U	8.57E-04	5.00E-03	5.00E-01	6.30E-01		
B8-2	56-23-5	SW8260B	9/2/2009	-14	-15	8.33E-04	U	8.33E-04	5.00E-03	5.00E-01	6.30E-01		
B8-3	56-23-5	SW8260B	9/2/2009	-8	-8.5	9.03E-04	U	9.03E-04	5.00E-03	5.00E-01	6.30E-01		
B9 0-1'	56-23-5	SW8260B	11/11/2009	0	-1	1.17E-03	U	1.17E-03	5.00E-03	5.00E-01	6.30E-01		
B9 14-15'	56-23-5	SW8260B	11/11/2009	-14	-15	1.08E-03	U	1.08E-03	5.00E-03	5.00E-01	6.30E-01		

Chlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	108-90-7	SW8260B	8/31/2009	0	-1	1.13E-03	U	1.13E-03	5.00E-03	1.00E+01	5.91E+02		
B1 0-1'	108-90-7	SW8260B	11/11/2009	0	-1	1.67E-03	U	1.67E-03	5.00E-03	1.00E+01	5.91E+02		
B1 14-15'	108-90-7	SW8260B	11/11/2009	-14	-15	1.23E-03	U	1.23E-03	5.00E-03	1.00E+01	5.91E+02		
B10-1	108-90-7	SW8260B	9/2/2009	-2	-3	1.34E-03	U	1.34E-03	5.00E-03	1.00E+01	5.91E+02		
B10-2	108-90-7	SW8260B	9/2/2009	-13	-14	1.14E-03	U	1.14E-03	5.00E-03	1.00E+01	5.91E+02		
B2 1-1.5	108-90-7	SW8260B	9/1/2009	-1	-1.5	1.06E-03	U	1.06E-03	5.00E-03	1.00E+01	5.91E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Chlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 21-22.5	108-90-7	SW8260B	9/1/2009	-21	-22.5	1.26E-03	U	1.26E-03	5.00E-03	1.00E+01	5.91E+02		
B3 12-13	108-90-7	SW8260B	8/31/2009	-12	-13	1.01E-03	U	1.01E-03	5.00E-03	1.00E+01	5.91E+02		
B3 2-3	108-90-7	SW8260B	8/31/2009	-2	-3	1.18E-03	U	1.18E-03	5.00E-03	1.00E+01	5.91E+02		
B4 14.5-15	108-90-7	SW8260B	9/1/2009	-14.5	-15	1.15E-03	U	1.15E-03	5.00E-03	1.00E+01	5.91E+02		
B4 2-2.5	108-90-7	SW8260B	9/1/2009	-2	-2.5	1.23E-03	U	1.23E-03	5.00E-03	1.00E+01	5.91E+02		
B5-1	108-90-7	SW8260B	9/2/2009	-1	-1.5	1.21E-03	U	1.21E-03	5.00E-03	1.00E+01	5.91E+02		
B5-2	108-90-7	SW8260B	9/2/2009	-14.5	-15	1.15E-03	U	1.15E-03	5.00E-03	1.00E+01	5.91E+02		
B6-1	108-90-7	SW8260B	9/2/2009	-0.5	-1	1.12E-03	U	1.12E-03	5.00E-03	1.00E+01	5.91E+02		
B6-2	108-90-7	SW8260B	9/2/2009	-14.5	-15	1.15E-03	U	1.15E-03	5.00E-03	1.00E+01	5.91E+02		
B7 0-1'	108-90-7	SW8260B	11/11/2009	0	-1	1.32E-03	U	1.32E-03	5.00E-03	1.00E+01	5.91E+02		
B7 14-15'	108-90-7	SW8260B	11/11/2009	-14	-15	1.45E-03	U	1.45E-03	5.00E-03	1.00E+01	5.91E+02		
B8-1	108-90-7	SW8260B	9/2/2009	-1	-1.5	1.14E-03	U	1.14E-03	5.00E-03	1.00E+01	5.91E+02		
B8-2	108-90-7	SW8260B	9/2/2009	-14	-15	1.11E-03	U	1.11E-03	5.00E-03	1.00E+01	5.91E+02		
B8-3	108-90-7	SW8260B	9/2/2009	-8	-8.5	1.20E-03	U	1.20E-03	5.00E-03	1.00E+01	5.91E+02		
B9 0-1'	108-90-7	SW8260B	11/11/2009	0	-1	1.55E-03	U	1.55E-03	5.00E-03	1.00E+01	5.91E+02		
B9 14-15'	108-90-7	SW8260B	11/11/2009	-14	-15	1.42E-03	U	1.42E-03	5.00E-03	1.00E+01	5.91E+02		

Chloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	75-00-3	SW8260B	8/31/2009	0	-1	2.00E-03	U	2.00E-03	5.00E-03	4.09E+03	1.73E+04		
B1 0-1'	75-00-3	SW8260B	11/11/2009	0	-1	1.25E-03	U	1.25E-03	5.00E-03	4.09E+03	1.73E+04		
B1 14-15'	75-00-3	SW8260B	11/11/2009	-14	-15	9.14E-04	U	9.14E-04	5.00E-03	4.09E+03	1.73E+04		
B10-1	75-00-3	SW8260B	9/2/2009	-2	-3	2.39E-03	U	2.39E-03	5.00E-03	4.09E+03	1.73E+04		
B10-2	75-00-3	SW8260B	9/2/2009	-13	-14	2.03E-03	U	2.03E-03	5.00E-03	4.09E+03	1.73E+04		
B2 1-1.5	75-00-3	SW8260B	9/1/2009	-1	-1.5	1.89E-03	U	1.89E-03	5.00E-03	4.09E+03	1.73E+04		
B2 21-22.5	75-00-3	SW8260B	9/1/2009	-21	-22.5	2.24E-03	U	2.24E-03	5.00E-03	4.09E+03	1.73E+04		
B3 12-13	75-00-3	SW8260B	8/31/2009	-12	-13	1.80E-03	U	1.80E-03	5.00E-03	4.09E+03	1.73E+04		
B3 2-3	75-00-3	SW8260B	8/31/2009	-2	-3	2.10E-03	U	2.10E-03	5.00E-03	4.09E+03	1.73E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Chloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 14.5-15	75-00-3	SW8260B	9/1/2009	-14.5	-15	2.04E-03	U	2.04E-03	5.00E-03	4.09E+03	1.73E+04		
B4 2-2.5	75-00-3	SW8260B	9/1/2009	-2	-2.5	2.18E-03	U	2.18E-03	5.00E-03	4.09E+03	1.73E+04		
B5-1	75-00-3	SW8260B	9/2/2009	-1	-1.5	2.14E-03	U	2.14E-03	5.00E-03	4.09E+03	1.73E+04		
B5-2	75-00-3	SW8260B	9/2/2009	-14.5	-15	2.04E-03	U	2.04E-03	5.00E-03	4.09E+03	1.73E+04		
B6-1	75-00-3	SW8260B	9/2/2009	-0.5	-1	1.98E-03	U	1.98E-03	5.00E-03	4.09E+03	1.73E+04		
B6-2	75-00-3	SW8260B	9/2/2009	-14.5	-15	2.04E-03	U	2.04E-03	5.00E-03	4.09E+03	1.73E+04		
B7 0-1'	75-00-3	SW8260B	11/11/2009	0	-1	9.88E-04	U	9.88E-04	5.00E-03	4.09E+03	1.73E+04		
B7 14-15'	75-00-3	SW8260B	11/11/2009	-14	-15	1.08E-03	U	1.08E-03	5.00E-03	4.09E+03	1.73E+04		
B8-1	75-00-3	SW8260B	9/2/2009	-1	-1.5	2.02E-03	U	2.02E-03	5.00E-03	4.09E+03	1.73E+04		
B8-2	75-00-3	SW8260B	9/2/2009	-14	-15	1.97E-03	U	1.97E-03	5.00E-03	4.09E+03	1.73E+04		
B8-3	75-00-3	SW8260B	9/2/2009	-8	-8.5	2.13E-03	U	2.13E-03	5.00E-03	4.09E+03	1.73E+04		
B9 0-1'	75-00-3	SW8260B	11/11/2009	0	-1	1.16E-03	U	1.16E-03	5.00E-03	4.09E+03	1.73E+04		
B9 14-15'	75-00-3	SW8260B	11/11/2009	-14	-15	1.07E-03	U	1.07E-03	5.00E-03	4.09E+03	1.73E+04		

Chloroform

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	67-66-3	SW8260B	8/31/2009	0	-1	1.17E-03	U	1.17E-03	5.00E-03	1.02E+02	5.15E-01		
B1 0-1'	67-66-3	SW8260B	11/11/2009	0	-1	1.74E-03	U	1.74E-03	5.00E-03	1.02E+02	5.15E-01		
B1 14-15'	67-66-3	SW8260B	11/11/2009	-14	-15	1.28E-03	U	1.28E-03	5.00E-03	1.02E+02	5.15E-01		
B10-1	67-66-3	SW8260B	9/2/2009	-2	-3	1.40E-03	U	1.40E-03	5.00E-03	1.02E+02	5.15E-01		
B10-2	67-66-3	SW8260B	9/2/2009	-13	-14	1.19E-03	U	1.19E-03	5.00E-03	1.02E+02	5.15E-01		
B2 1-1.5	67-66-3	SW8260B	9/1/2009	-1	-1.5	1.11E-03	U	1.11E-03	5.00E-03	1.02E+02	5.15E-01		
B2 21-22.5	67-66-3	SW8260B	9/1/2009	-21	-22.5	1.31E-03	U	1.31E-03	5.00E-03	1.02E+02	5.15E-01		
B3 12-13	67-66-3	SW8260B	8/31/2009	-12	-13	1.06E-03	U	1.06E-03	5.00E-03	1.02E+02	5.15E-01		
B3 2-3	67-66-3	SW8260B	8/31/2009	-2	-3	1.23E-03	U	1.23E-03	5.00E-03	1.02E+02	5.15E-01		
B4 14.5-15	67-66-3	SW8260B	9/1/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	1.02E+02	5.15E-01		
B4 2-2.5	67-66-3	SW8260B	9/1/2009	-2	-2.5	1.28E-03	U	1.28E-03	5.00E-03	1.02E+02	5.15E-01		
B5-1	67-66-3	SW8260B	9/2/2009	-1	-1.5	1.26E-03	U	1.26E-03	5.00E-03	1.02E+02	5.15E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Chloroform

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B5-2	67-66-3	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	1.02E+02	5.15E-01		
B6-1	67-66-3	SW8260B	9/2/2009	-0.5	-1	1.16E-03	U	1.16E-03	5.00E-03	1.02E+02	5.15E-01		
B6-2	67-66-3	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	1.02E+02	5.15E-01		
B7 0-1'	67-66-3	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	5.00E-03	1.02E+02	5.15E-01		
B7 14-15'	67-66-3	SW8260B	11/11/2009	-14	-15	1.52E-03	U	1.52E-03	5.00E-03	1.02E+02	5.15E-01		
B8-1	67-66-3	SW8260B	9/2/2009	-1	-1.5	1.19E-03	U	1.19E-03	5.00E-03	1.02E+02	5.15E-01		
B8-2	67-66-3	SW8260B	9/2/2009	-14	-15	1.15E-03	U	1.15E-03	5.00E-03	1.02E+02	5.15E-01		
B8-3	67-66-3	SW8260B	9/2/2009	-8	-8.5	1.25E-03	U	1.25E-03	5.00E-03	1.02E+02	5.15E-01		
B9 0-1'	67-66-3	SW8260B	11/11/2009	0	-1	1.62E-03	U	1.62E-03	5.00E-03	1.02E+02	5.15E-01		
B9 14-15'	67-66-3	SW8260B	11/11/2009	-14	-15	1.49E-03	U	1.49E-03	5.00E-03	1.02E+02	5.15E-01		

Chloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	74-87-3	SW8260B	8/31/2009	0	-1	3.55E-03	U	3.55E-03	5.00E-03	2.20E+01	3.83E+00		
B1 0-1'	74-87-3	SW8260B	11/11/2009	0	-1	1.53E-03	U	1.53E-03	5.00E-03	2.20E+01	3.83E+00		
B1 14-15'	74-87-3	SW8260B	11/11/2009	-14	-15	1.11E-03	U	1.11E-03	5.00E-03	2.20E+01	3.83E+00		
B10-1	74-87-3	SW8260B	9/2/2009	-2	-3	4.23E-03	U	4.23E-03	5.00E-03	2.20E+01	3.83E+00		
B10-2	74-87-3	SW8260B	9/2/2009	-13	-14	3.60E-03	U	3.60E-03	5.00E-03	2.20E+01	3.83E+00		
B2 1-1.5	74-87-3	SW8260B	9/1/2009	-1	-1.5	3.35E-03	U	3.35E-03	5.00E-03	2.20E+01	3.83E+00		
B2 21-22.5	74-87-3	SW8260B	9/1/2009	-21	-22.5	3.97E-03	U	3.97E-03	5.00E-03	2.20E+01	3.83E+00		
B3 12-13	74-87-3	SW8260B	8/31/2009	-12	-13	3.19E-03	U	3.19E-03	5.00E-03	2.20E+01	3.83E+00		
B3 2-3	74-87-3	SW8260B	8/31/2009	-2	-3	3.73E-03	U	3.73E-03	5.00E-03	2.20E+01	3.83E+00		
B4 14.5-15	74-87-3	SW8260B	9/1/2009	-14.5	-15	3.62E-03	U	3.62E-03	5.00E-03	2.20E+01	3.83E+00		
B4 2-2.5	74-87-3	SW8260B	9/1/2009	-2	-2.5	3.87E-03	U	3.87E-03	5.00E-03	2.20E+01	3.83E+00		
B5-1	74-87-3	SW8260B	9/2/2009	-1	-1.5	3.80E-03	U	3.80E-03	5.00E-03	2.20E+01	3.83E+00		
B5-2	74-87-3	SW8260B	9/2/2009	-14.5	-15	3.62E-03	U	3.62E-03	5.00E-03	2.20E+01	3.83E+00		
B6-1	74-87-3	SW8260B	9/2/2009	-0.5	-1	3.51E-03	U	3.51E-03	5.00E-03	2.20E+01	3.83E+00		
B6-2	74-87-3	SW8260B	9/2/2009	-14.5	-15	3.62E-03	U	3.62E-03	5.00E-03	2.20E+01	3.83E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Chloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 0-1'	74-87-3	SW8260B	11/11/2009	0	-1	1.21E-03	U	1.21E-03	5.00E-03	2.20E+01	3.83E+00		
B7 14-15'	74-87-3	SW8260B	11/11/2009	-14	-15	1.33E-03	U	1.33E-03	5.00E-03	2.20E+01	3.83E+00		
B8-1	74-87-3	SW8260B	9/2/2009	-1	-1.5	3.58E-03	U	3.58E-03	5.00E-03	2.20E+01	3.83E+00		
B8-2	74-87-3	SW8260B	9/2/2009	-14	-15	3.49E-03	U	3.49E-03	5.00E-03	2.20E+01	3.83E+00		
B8-3	74-87-3	SW8260B	9/2/2009	-8	-8.5	3.78E-03	U	3.78E-03	5.00E-03	2.20E+01	3.83E+00		
B9 0-1'	74-87-3	SW8260B	11/11/2009	0	-1	1.42E-03	U	1.42E-03	5.00E-03	2.20E+01	3.83E+00		
B9 14-15'	74-87-3	SW8260B	11/11/2009	-14	-15	1.30E-03	U	1.30E-03	5.00E-03	2.20E+01	3.83E+00		

Chromium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-47-3	SW6010B	8/31/2009	0	-1	2.72E+01		2.57E-01	1.00E+00	2.40E+03	3.50E+05	1.33E+01	3.67E+01
B1 0-1'	7440-47-3	SW6010B	11/11/2009	0	-1	2.07E+01		2.66E-01	1.00E+00	2.40E+03	3.50E+05	1.33E+01	3.67E+01
B1 14-15'	7440-47-3	SW6010B	11/11/2009	-14	-15	7.37E+00		2.39E-01	1.00E+00	2.40E+03	3.50E+05		
B10-1	7440-47-3	SW6010B	9/2/2009	-2	-3	2.27E+01		3.07E-01	1.00E+00	2.40E+03	3.50E+05	1.64E+01	3.86E+01
B10-2	7440-47-3	SW6010B	9/2/2009	-13	-14	9.13E+00		2.61E-01	1.00E+00	2.40E+03	3.50E+05		
B2 1-1.5	7440-47-3	SW6010B	9/1/2009	-1	-1.5	2.19E+01		2.43E-01	1.00E+00	2.40E+03	3.50E+05	1.64E+01	3.86E+01
B2 21-22.5	7440-47-3	SW6010B	9/1/2009	-21	-22.5	1.64E+01		2.87E-01	1.00E+00	2.40E+03	3.50E+05		
B3 12-13	7440-47-3	SW6010B	8/31/2009	-12	-13	8.94E+00		2.31E-01	1.00E+00	2.40E+03	3.50E+05		
B3 2-3	7440-47-3	SW6010B	8/31/2009	-2	-3	2.75E+01		2.70E-01	1.00E+00	2.40E+03	3.50E+05	1.64E+01	3.86E+01
B4 14-14.5	7440-47-3	SW6010B	9/1/2009	-14	-14.5	2.10E+01		2.59E-01	1.00E+00	2.40E+03	3.50E+05		
B4 2-2.5	7440-47-3	SW6010B	9/1/2009	-2	-2.5	2.84E+01		2.80E-01	1.00E+00	2.40E+03	3.50E+05	1.64E+01	3.86E+01
B5-1	7440-47-3	SW6010B	9/2/2009	-1	-1.5	2.22E+01		2.76E-01	1.00E+00	2.40E+03	3.50E+05	1.64E+01	3.86E+01
B5-2	7440-47-3	SW6010B	9/2/2009	-14.5	-15	3.16E+01		2.62E-01	1.00E+00	2.40E+03	3.50E+05		
B6-1	7440-47-3	SW6010B	9/2/2009	-0.5	-1	1.90E+01		2.55E-01	1.00E+00	2.40E+03	3.50E+05	1.33E+01	3.67E+01
B6-2	7440-47-3	SW6010B	9/2/2009	-14.5	-15	1.91E+01		2.62E-01	1.00E+00	2.40E+03	3.50E+05		
B7 0-1'	7440-47-3	SW6010B	11/11/2009	0	-1	7.74E+00		2.45E-01	1.00E+00	2.40E+03	3.50E+05	1.33E+01	3.67E+01
B7 14-15'	7440-47-3	SW6010B	11/11/2009	-14	-15	8.14E+00		2.53E-01	1.00E+00	2.40E+03	3.50E+05		
B8-1	7440-47-3	SW6010B	9/2/2009	-1	-1.5	1.88E+01		2.60E-01	1.00E+00	2.40E+03	3.50E+05	1.64E+01	3.86E+01

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Chromium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8-2	7440-47-3	SW6010B	9/2/2009	-14	-15	1.06E+01		2.53E-01	1.00E+00	2.40E+03	3.50E+05		
B9 0-1'	7440-47-3	SW6010B	11/11/2009	0	-1	1.51E+01		2.59E-01	1.00E+00	2.40E+03	3.50E+05	1.33E+01	3.67E+01
B9 14-15'	7440-47-3	SW6010B	11/11/2009	-14	-15	7.62E+00		2.52E-01	1.00E+00	2.40E+03	3.50E+05		

Chromium, Hexavalent

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	18540-29-	SW7196A	8/31/2009	0	-1	4.88E+00	U	2.44E-01	5.00E-01	1.00E+01	1.23E+03		
B1 0-1'	18540-29-	SW7196A	11/11/2009	0	-1	6.63E+00	U	3.32E-01	1.00E+00	1.00E+01	1.23E+03		
B1 14-15'	18540-29-	SW7196A	11/11/2009	-14	-15	5.39E+00	U	2.69E-01	1.00E+00	1.00E+01	1.23E+03		
B10-1	18540-29-	SW7196A	9/2/2009	-2	-3	5.83E+00	U	2.91E-01	5.00E-01	1.00E+01	1.23E+03		
B10-2	18540-29-	SW7196A	9/2/2009	-13	-14	4.96E+00	U	2.48E-01	5.00E-01	1.00E+01	1.23E+03		
B2 1-1.5	18540-29-	SW7196A	9/1/2009	-1	-1.5	4.62E+00	U	2.31E-01	5.00E-01	1.00E+01	1.23E+03		
B2 21-22.5	18540-29-	SW7196A	9/1/2009	-21	-22.5	5.46E+00	U	2.73E-01	5.00E-01	1.00E+01	1.23E+03		
B3 12-13	18540-29-	SW7196A	8/31/2009	-12	-13	4.39E+00	U	2.20E-01	5.00E-01	1.00E+01	1.23E+03		
B3 2-3	18540-29-	SW7196A	8/31/2009	-2	-3	5.13E+00	U	2.57E-01	5.00E-01	1.00E+01	1.23E+03		
B4 14-14.5	18540-29-	SW7196A	9/1/2009	-14	-14.5	4.93E+00	U	2.46E-01	5.00E-01	1.00E+01	1.23E+03		
B4 2-2.5	18540-29-	SW7196A	9/1/2009	-2	-2.5	5.32E+00	U	2.66E-01	5.00E-01	1.00E+01	1.23E+03		
B5-1	18540-29-	SW7196A	9/2/2009	-1	-1.5	5.24E+00	U	2.62E-01	5.00E-01	1.00E+01	1.23E+03		
B5-2	18540-29-	SW7196A	9/2/2009	-14.5	-15	4.99E+00	U	2.49E-01	5.00E-01	1.00E+01	1.23E+03		
B6-1	18540-29-	SW7196A	9/2/2009	-0.5	-1	4.84E+00	U	2.42E-01	5.00E-01	1.00E+01	1.23E+03		
B6-2	18540-29-	SW7196A	9/2/2009	-14.5	-15	4.99E+00	U	2.49E-01	5.00E-01	1.00E+01	1.23E+03		
B7 0-1'	18540-29-	SW7196A	11/11/2009	0	-1	2.83E-01	U	2.83E-01	1.00E+00	1.00E+01	1.23E+03		
B7 14-15'	18540-29-	SW7196A	11/11/2009	-14	-15	3.01E-01	U	3.01E-01	1.00E+00	1.00E+01	1.23E+03		
B8-1	18540-29-	SW7196A	9/2/2009	-1	-1.5	4.94E+00	U	2.47E-01	5.00E-01	1.00E+01	1.23E+03		
B8-2	18540-29-	SW7196A	9/2/2009	-14	-15	4.80E+00	U	2.40E-01	5.00E-01	1.00E+01	1.23E+03		
B9 0-1'	18540-29-	SW7196A	11/11/2009	0	-1	3.17E-01	U	3.17E-01	1.00E+00	1.00E+01	1.23E+03		
B9 14-15'	18540-29-	SW7196A	11/11/2009	-14	-15	2.98E-01	U	2.98E-01	1.00E+00	1.00E+01	1.23E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Chrysene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	218-01-9	SW8270C	8/31/2009	0	-1	1.40E-01	U	1.40E-01	3.30E-01	3.92E+00	3.41E+02		
B1 0-1'	218-01-9	SW8270C	11/11/2009	0	-1	1.44E-01	U	1.44E-01	3.30E-01	3.92E+00	3.41E+02		
B1 14-15'	218-01-9	SW8270C	11/11/2009	-14	-15	1.30E-01	U	1.30E-01	3.30E-01	3.92E+00	3.41E+02		
B10-1	218-01-9	SW8270C	9/2/2009	-2	-3	1.66E-01	U	1.66E-01	3.30E-01	3.92E+00	3.41E+02		
B10-2	218-01-9	SW8270C	9/2/2009	-13	-14	1.42E-01	U	1.42E-01	3.30E-01	3.92E+00	3.41E+02		
B2 1-1.5	218-01-9	SW8270C	9/1/2009	-1	-1.5	1.32E-01	U	1.32E-01	3.30E-01	3.92E+00	3.41E+02		
B2 21-22.5	218-01-9	SW8270C	9/1/2009	-21	-22.5	1.56E-01	U	1.56E-01	3.30E-01	3.92E+00	3.41E+02		
B3 12-13	218-01-9	SW8270C	8/31/2009	-12	-13	1.26E-01	U	1.25E-01	3.30E-01	3.92E+00	3.41E+02		
B3 2-3	218-01-9	SW8270C	8/31/2009	-2	-3	1.47E-01	U	1.47E-01	3.30E-01	3.92E+00	3.41E+02		
B4 14-14.5	218-01-9	SW8270C	9/1/2009	-14	-14.5	1.41E-01	U	1.41E-01	3.30E-01	3.92E+00	3.41E+02		
B4 2-2.5	218-01-9	SW8270C	9/1/2009	-2	-2.5	1.52E-01	U	1.52E-01	3.30E-01	3.92E+00	3.41E+02		
B5-1	218-01-9	SW8270C	9/2/2009	-1	-1.5	1.50E-01	U	1.50E-01	3.30E-01	3.92E+00	3.41E+02		
B5-2	218-01-9	SW8270C	9/2/2009	-14.5	-15	1.42E-01	U	1.43E-01	3.30E-01	3.92E+00	3.41E+02		
B6-1	218-01-9	SW8270C	9/2/2009	-0.5	-1	1.38E-01	U	1.38E-01	3.30E-01	3.92E+00	3.41E+02		
B6-2	218-01-9	SW8270C	9/2/2009	-14.5	-15	1.42E-01	U	1.43E-01	3.30E-01	3.92E+00	3.41E+02		
B7 0-1'	218-01-9	SW8270C	11/11/2009	0	-1	1.33E-01	U	1.33E-01	3.30E-01	3.92E+00	3.41E+02		
B7 14-15'	218-01-9	SW8270C	11/11/2009	-14	-15	1.37E-01	U	1.37E-01	3.30E-01	3.92E+00	3.41E+02		
B8-1	218-01-9	SW8270C	9/2/2009	-1	-1.5	1.41E-01	U	1.41E-01	3.30E-01	3.92E+00	3.41E+02		
B8-2	218-01-9	SW8270C	9/2/2009	-14	-15	1.37E-01	U	1.37E-01	3.30E-01	3.92E+00	3.41E+02		
B9 0-1'	218-01-9	SW8270C	11/11/2009	0	-1	1.41E-01	U	1.41E-01	3.30E-01	3.92E+00	3.41E+02		
B9 14-15'	218-01-9	SW8270C	11/11/2009	-14	-15	1.37E-01	U	1.37E-01	3.30E-01	3.92E+00	3.41E+02		

cis-1,2-Dichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	156-59-2	SW8260B	8/31/2009	0	-1	1.06E-03	U	1.06E-03	5.00E-03	7.00E+00	2.45E+03		
B1 0-1'	156-59-2	SW8260B	11/11/2009	0	-1	1.59E-03	U	1.59E-03	5.00E-03	7.00E+00	2.45E+03		
B1 14-15'	156-59-2	SW8260B	11/11/2009	-14	-15	1.16E-03	U	1.16E-03	5.00E-03	7.00E+00	2.45E+03		
B10-1	156-59-2	SW8260B	9/2/2009	-2	-3	1.27E-03	U	1.27E-03	5.00E-03	7.00E+00	2.45E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

cis-1,2-Dichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-2	156-59-2	SW8260B	9/2/2009	-13	-14	1.08E-03	U	1.08E-03	5.00E-03	7.00E+00	2.45E+03		
B2 1-1.5	156-59-2	SW8260B	9/1/2009	-1	-1.5	1.00E-03	U	1.00E-03	5.00E-03	7.00E+00	2.45E+03		
B2 21-22.5	156-59-2	SW8260B	9/1/2009	-21	-22.5	1.19E-03	U	1.19E-03	5.00E-03	7.00E+00	2.45E+03		
B3 12-13	156-59-2	SW8260B	8/31/2009	-12	-13	9.56E-04	U	9.56E-04	5.00E-03	7.00E+00	2.45E+03		
B3 2-3	156-59-2	SW8260B	8/31/2009	-2	-3	1.12E-03	U	1.12E-03	5.00E-03	7.00E+00	2.45E+03		
B4 14.5-15	156-59-2	SW8260B	9/1/2009	-14.5	-15	1.09E-03	U	1.09E-03	5.00E-03	7.00E+00	2.45E+03		
B4 2-2.5	156-59-2	SW8260B	9/1/2009	-2	-2.5	1.16E-03	U	1.16E-03	5.00E-03	7.00E+00	2.45E+03		
B5-1	156-59-2	SW8260B	9/2/2009	-1	-1.5	1.14E-03	U	1.14E-03	5.00E-03	7.00E+00	2.45E+03		
B5-2	156-59-2	SW8260B	9/2/2009	-14.5	-15	1.09E-03	U	1.09E-03	5.00E-03	7.00E+00	2.45E+03		
B6-1	156-59-2	SW8260B	9/2/2009	-0.5	-1	1.05E-03	U	1.05E-03	5.00E-03	7.00E+00	2.45E+03		
B6-2	156-59-2	SW8260B	9/2/2009	-14.5	-15	1.09E-03	U	1.09E-03	5.00E-03	7.00E+00	2.45E+03		
B7 0-1'	156-59-2	SW8260B	11/11/2009	0	-1	1.24E-03	U	1.24E-03	5.00E-03	7.00E+00	2.45E+03		
B7 14-15'	156-59-2	SW8260B	11/11/2009	-14	-15	1.37E-03	U	1.37E-03	5.00E-03	7.00E+00	2.45E+03		
B8-1	156-59-2	SW8260B	9/2/2009	-1	-1.5	1.07E-03	U	1.07E-03	5.00E-03	7.00E+00	2.45E+03		
B8-2	156-59-2	SW8260B	9/2/2009	-14	-15	1.04E-03	U	1.04E-03	5.00E-03	7.00E+00	2.45E+03		
B8-3	156-59-2	SW8260B	9/2/2009	-8	-8.5	1.13E-03	U	1.13E-03	5.00E-03	7.00E+00	2.45E+03		
B9 0-1'	156-59-2	SW8260B	11/11/2009	0	-1	1.47E-03	U	1.47E-03	5.00E-03	7.00E+00	2.45E+03		
B9 14-15'	156-59-2	SW8260B	11/11/2009	-14	-15	1.34E-03	U	1.34E-03	5.00E-03	7.00E+00	2.45E+03		

cis-1,3-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	10061-01-	SW8260B	8/31/2009	0	-1	1.17E-03	U	1.17E-03	5.00E-03	5.30E-01	3.42E+01		
B1 0-1'	10061-01-	SW8260B	11/11/2009	0	-1	6.07E-04	U	6.07E-04	1.00E-03	5.30E-01	3.42E+01		
B1 0-1'	10061-01-	SW8260B	11/11/2009	0	-1	1.74E-03	U	1.74E-03	5.00E-03	5.30E-01	3.42E+01		
B1 14-15'	10061-01-	SW8260B	11/11/2009	-14	-15	4.91E-04	U	4.91E-04	1.00E-03	5.30E-01	3.42E+01		
B1 14-15'	10061-01-	SW8260B	11/11/2009	-14	-15	1.28E-03	U	1.28E-03	5.00E-03	5.30E-01	3.42E+01		
B10-1	10061-01-	SW8260B	9/2/2009	-2	-3	1.40E-03	U	1.40E-03	5.00E-03	5.30E-01	3.42E+01		
B10-2	10061-01-	SW8260B	9/2/2009	-13	-14	1.19E-03	U	1.19E-03	5.00E-03	5.30E-01	3.42E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

cis-1,3-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 1-1.5	10061-01-	SW8260B	9/1/2009	-1	-1.5	1.11E-03	U	1.11E-03	5.00E-03	5.30E-01	3.42E+01		
B2 21-22.5	10061-01-	SW8260B	9/1/2009	-21	-22.5	1.31E-03	U	1.31E-03	5.00E-03	5.30E-01	3.42E+01		
B3 12-13	10061-01-	SW8260B	8/31/2009	-12	-13	1.06E-03	U	1.06E-03	5.00E-03	5.30E-01	3.42E+01		
B3 2-3	10061-01-	SW8260B	8/31/2009	-2	-3	1.23E-03	U	1.23E-03	5.00E-03	5.30E-01	3.42E+01		
B4 14.5-15	10061-01-	SW8260B	9/1/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	5.30E-01	3.42E+01		
B4 2-2.5	10061-01-	SW8260B	9/1/2009	-2	-2.5	1.28E-03	U	1.28E-03	5.00E-03	5.30E-01	3.42E+01		
B5-1	10061-01-	SW8260B	9/2/2009	-1	-1.5	1.26E-03	U	1.26E-03	5.00E-03	5.30E-01	3.42E+01		
B5-2	10061-01-	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	5.30E-01	3.42E+01		
B6-1	10061-01-	SW8260B	9/2/2009	-0.5	-1	1.16E-03	U	1.16E-03	5.00E-03	5.30E-01	3.42E+01		
B6-2	10061-01-	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	5.00E-03	5.30E-01	3.42E+01		
B7 0-1'	10061-01-	SW8260B	11/11/2009	0	-1	5.17E-04	U	5.17E-04	1.00E-03	5.30E-01	3.42E+01		
B7 0-1'	10061-01-	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	5.00E-03	5.30E-01	3.42E+01		
B7 14-15'	10061-01-	SW8260B	11/11/2009	-14	-15	1.52E-03	U	1.52E-03	5.00E-03	5.30E-01	3.42E+01		
B7 14-15'	10061-01-	SW8260B	11/11/2009	-14	-15	5.50E-04	U	5.50E-04	1.00E-03	5.30E-01	3.42E+01		
B8-1	10061-01-	SW8260B	9/2/2009	-1	-1.5	1.19E-03	U	1.19E-03	5.00E-03	5.30E-01	3.42E+01		
B8-2	10061-01-	SW8260B	9/2/2009	-14	-15	1.15E-03	U	1.15E-03	5.00E-03	5.30E-01	3.42E+01		
B8-3	10061-01-	SW8260B	9/2/2009	-8	-8.5	1.25E-03	U	1.25E-03	5.00E-03	5.30E-01	3.42E+01		
B9 0-1'	10061-01-	SW8260B	11/11/2009	0	-1	1.62E-03	U	1.62E-03	5.00E-03	5.30E-01	3.42E+01		
B9 0-1'	10061-01-	SW8260B	11/11/2009	0	-1	5.77E-04	U	5.77E-04	1.00E-03	5.30E-01	3.42E+01		
B9 14-15'	10061-01-	SW8260B	11/11/2009	-14	-15	1.49E-03	U	1.49E-03	5.00E-03	5.30E-01	3.42E+01		
B9 14-15'	10061-01-	SW8260B	11/11/2009	-14	-15	5.44E-04	U	5.44E-04	1.00E-03	5.30E-01	3.42E+01		

Cobalt

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-48-4	SW6010B	8/31/2009	0	-1	1.03E+01		4.30E-01	1.00E+00	6.13E+02	1.11E+05	4.77E+00	6.13E+00
B1 0-1'	7440-48-4	SW6010B	11/11/2009	0	-1	4.22E+00		4.45E-01	1.00E+00	6.13E+02	1.11E+05	4.77E+00	6.13E+00
B1 14-15'	7440-48-4	SW6010B	11/11/2009	-14	-15	2.47E+00		4.00E-01	1.00E+00	6.13E+02	1.11E+05		
B10-1	7440-48-4	SW6010B	9/2/2009	-2	-3	4.52E+00		5.13E-01	1.00E+00	6.13E+02	1.11E+05	3.34E+00	6.92E+00

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Cobalt

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-2	7440-48-4	SW6010B	9/2/2009	-13	-14	2.08E+01		4.37E-01	1.00E+00	6.13E+02	1.11E+05		
B2 1-1.5	7440-48-4	SW6010B	9/1/2009	-1	-1.5	4.54E+00		4.07E-01	1.00E+00	6.13E+02	1.11E+05	3.34E+00	6.92E+00
B2 21-22.5	7440-48-4	SW6010B	9/1/2009	-21	-22.5	2.30E+01		4.81E-01	1.00E+00	6.13E+02	1.11E+05		
B3 12-13	7440-48-4	SW6010B	8/31/2009	-12	-13	7.32E+00		3.87E-01	1.00E+00	6.13E+02	1.11E+05		
B3 2-3	7440-48-4	SW6010B	8/31/2009	-2	-3	5.18E+00		4.52E-01	1.00E+00	6.13E+02	1.11E+05	3.34E+00	6.92E+00
B4 14-14.5	7440-48-4	SW6010B	9/1/2009	-14	-14.5	1.47E+01		4.34E-01	1.00E+00	6.13E+02	1.11E+05		
B4 2-2.5	7440-48-4	SW6010B	9/1/2009	-2	-2.5	7.16E+00		4.69E-01	1.00E+00	6.13E+02	1.11E+05	3.34E+00	6.92E+00
B5-1	7440-48-4	SW6010B	9/2/2009	-1	-1.5	7.79E+00		4.61E-01	1.00E+00	6.13E+02	1.11E+05	3.34E+00	6.92E+00
B5-2	7440-48-4	SW6010B	9/2/2009	-14.5	-15	7.85E+00		4.39E-01	1.00E+00	6.13E+02	1.11E+05		
B6-1	7440-48-4	SW6010B	9/2/2009	-0.5	-1	6.01E+00		4.26E-01	1.00E+00	6.13E+02	1.11E+05	4.77E+00	6.13E+00
B6-2	7440-48-4	SW6010B	9/2/2009	-14.5	-15	9.26E+00		4.39E-01	1.00E+00	6.13E+02	1.11E+05		
B7 0-1'	7440-48-4	SW6010B	11/11/2009	0	-1	2.34E+00		4.11E-01	1.00E+00	6.13E+02	1.11E+05	4.77E+00	6.13E+00
B7 14-15'	7440-48-4	SW6010B	11/11/2009	-14	-15	5.76E+00		4.23E-01	1.00E+00	6.13E+02	1.11E+05		
B8-1	7440-48-4	SW6010B	9/2/2009	-1	-1.5	3.04E+00		4.35E-01	1.00E+00	6.13E+02	1.11E+05	3.34E+00	6.92E+00
B8-2	7440-48-4	SW6010B	9/2/2009	-14	-15	5.11E+01		4.23E-01	1.00E+00	6.13E+02	1.11E+05		
B9 0-1'	7440-48-4	SW6010B	11/11/2009	0	-1	6.94E+00		4.34E-01	1.00E+00	6.13E+02	1.11E+05	4.77E+00	6.13E+00
B9 14-15'	7440-48-4	SW6010B	11/11/2009	-14	-15	4.40E+00		4.21E-01	1.00E+00	6.13E+02	1.11E+05		

Copper

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-50-8	SW6010B	8/31/2009	0	-1	5.34E+00		5.20E-01	1.50E+00	1.30E+02	7.43E+04	2.85E+00	7.47E+00
B1 0-1'	7440-50-8	SW6010B	11/11/2009	0	-1	5.79E+00		5.37E-01	1.00E+00	1.30E+02	7.43E+04	2.85E+00	7.47E+00
B1 14-15'	7440-50-8	SW6010B	11/11/2009	-14	-15	2.45E+00		4.84E-01	1.00E+00	1.30E+02	7.43E+04		
B10-1	7440-50-8	SW6010B	9/2/2009	-2	-3	3.99E+00		6.20E-01	1.50E+00	1.30E+02	7.43E+04	5.26E+00	1.18E+01
B10-2	7440-50-8	SW6010B	9/2/2009	-13	-14	2.62E+00		5.28E-01	1.50E+00	1.30E+02	7.43E+04		
B2 1-1.5	7440-50-8	SW6010B	9/1/2009	-1	-1.5	5.87E+00		4.91E-01	1.50E+00	1.30E+02	7.43E+04	5.26E+00	1.18E+01
B2 21-22.5	7440-50-8	SW6010B	9/1/2009	-21	-22.5	1.33E+01		5.81E-01	1.50E+00	1.30E+02	7.43E+04		
B3 12-13	7440-50-8	SW6010B	8/31/2009	-12	-13	2.95E+00		4.67E-01	1.50E+00	1.30E+02	7.43E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Copper

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B3 2-3	7440-50-8	SW6010B	8/31/2009	-2	-3	4.65E+00		5.46E-01	1.50E+00	1.30E+02	7.43E+04	5.26E+00	1.18E+01
B4 14-14.5	7440-50-8	SW6010B	9/1/2009	-14	-14.5	1.01E+01		5.25E-01	1.50E+00	1.30E+02	7.43E+04		
B4 2-2.5	7440-50-8	SW6010B	9/1/2009	-2	-2.5	6.46E+00		5.67E-01	1.50E+00	1.30E+02	7.43E+04	5.26E+00	1.18E+01
B5-1	7440-50-8	SW6010B	9/2/2009	-1	-1.5	4.89E+00		5.57E-01	1.50E+00	1.30E+02	7.43E+04	5.26E+00	1.18E+01
B5-2	7440-50-8	SW6010B	9/2/2009	-14.5	-15	1.12E+01		5.31E-01	1.50E+00	1.30E+02	7.43E+04		
B6-1	7440-50-8	SW6010B	9/2/2009	-0.5	-1	7.13E+00		5.15E-01	1.50E+00	1.30E+02	7.43E+04	2.85E+00	7.47E+00
B6-2	7440-50-8	SW6010B	9/2/2009	-14.5	-15	1.25E+01		5.31E-01	1.50E+00	1.30E+02	7.43E+04		
B7 0-1'	7440-50-8	SW6010B	11/11/2009	0	-1	3.05E+00		4.96E-01	1.00E+00	1.30E+02	7.43E+04	2.85E+00	7.47E+00
B7 14-15'	7440-50-8	SW6010B	11/11/2009	-14	-15	5.11E-01	U	5.11E-01	1.00E+00	1.30E+02	7.43E+04		
B8-1	7440-50-8	SW6010B	9/2/2009	-1	-1.5	3.37E+00		5.25E-01	1.50E+00	1.30E+02	7.43E+04	5.26E+00	1.18E+01
B8-2	7440-50-8	SW6010B	9/2/2009	-14	-15	4.63E+00		5.11E-01	1.50E+00	1.30E+02	7.43E+04		
B9 0-1'	7440-50-8	SW6010B	11/11/2009	0	-1	5.24E-01	U	5.24E-01	1.00E+00	1.30E+02	7.43E+04	2.85E+00	7.47E+00
B9 14-15'	7440-50-8	SW6010B	11/11/2009	-14	-15	3.63E+00		5.09E-01	1.00E+00	1.30E+02	7.43E+04		

Cyanide

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	57-12-5	SW9010A	8/31/2009	0	-1	4.30E-01	U	4.30E-01	1.00E+00	2.00E+01	3.72E+04		
B1 0-1'	57-12-5	SW9010A	11/11/2009	0	-1	5.35E+00	U	5.35E+00	1.00E+01	2.00E+01	3.72E+04		
B1 14-15'	57-12-5	SW9010A	11/11/2009	-14	-15	4.33E+00	U	4.33E+00	1.00E+01	2.00E+01	3.72E+04		
B10-1	57-12-5	SW9010A	9/2/2009	-2	-3	5.13E-01	U	5.13E-01	1.00E+00	2.00E+01	3.72E+04		
B10-2	57-12-5	SW9010A	9/2/2009	-13	-14	4.37E-01	U	4.37E-01	1.00E+00	2.00E+01	3.72E+04		
B2 1-1.5	57-12-5	SW9010A	9/1/2009	-1	-1.5	4.07E-01	U	4.07E-01	1.00E+00	2.00E+01	3.72E+04		
B2 21-22.5	57-12-5	SW9010A	9/1/2009	-21	-22.5	4.81E-01	U	4.81E-01	1.00E+00	2.00E+01	3.72E+04		
B3 12-13	57-12-5	SW9010A	8/31/2009	-12	-13	3.87E-01	U	3.87E-01	1.00E+00	2.00E+01	3.72E+04		
B3 2-3	57-12-5	SW9010A	8/31/2009	-2	-3	4.52E-01	U	4.52E-01	1.00E+00	2.00E+01	3.72E+04		
B4 14-14.5	57-12-5	SW9010A	9/1/2009	-14	-14.5	4.34E-01	U	4.34E-01	1.00E+00	2.00E+01	3.72E+04		
B4 2-2.5	57-12-5	SW9010A	9/1/2009	-2	-2.5	4.69E-01	U	4.69E-01	1.00E+00	2.00E+01	3.72E+04		
B5-1	57-12-5	SW9010A	9/2/2009	-1	-1.5	4.61E-01	U	4.61E-01	1.00E+00	2.00E+01	3.72E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Cyanide

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B5-2	57-12-5	SW9010A	9/2/2009	-14.5	-15	4.39E-01	U	4.39E-01	1.00E+00	2.00E+01	3.72E+04		
B6-1	57-12-5	SW9010A	9/2/2009	-0.5	-1	4.26E-01	U	4.26E-01	1.00E+00	2.00E+01	3.72E+04		
B6-2	57-12-5	SW9010A	9/2/2009	-14.5	-15	4.39E-01	U	4.39E-01	1.00E+00	2.00E+01	3.72E+04		
B7 0-1'	57-12-5	SW9010A	11/11/2009	0	-1	4.56E+00	U	4.56E+00	1.00E+01	2.00E+01	3.72E+04		
B7 14-15'	57-12-5	SW9010A	11/11/2009	-14	-15	4.84E+00	U	4.84E+00	1.00E+01	2.00E+01	3.72E+04		
B8-1	57-12-5	SW9010A	9/2/2009	-1	-1.5	4.35E-01	U	4.35E-01	1.00E+00	2.00E+01	3.72E+04		
B8-2	57-12-5	SW9010A	9/2/2009	-14	-15	4.23E-01	U	4.23E-01	1.00E+00	2.00E+01	3.72E+04		
B9 0-1'	57-12-5	SW9010A	11/11/2009	0	-1	5.09E+00	U	5.09E+00	1.00E+01	2.00E+01	3.72E+04		
B9 14-15'	57-12-5	SW9010A	11/11/2009	-14	-15	4.79E+00	U	4.79E+00	1.00E+01	2.00E+01	3.72E+04		

Dibenz(a,h)anthracene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	53-70-3	SW8270C	8/31/2009	0	-1	9.17E-03	U	9.17E-03	3.33E-02	2.00E-02	3.41E-01		
B1 0-1'	53-70-3	SW8270C	11/11/2009	0	-1	1.11E-01	U	1.11E-01	3.30E-01	2.00E-02	3.41E-01		
B1 0-1'	53-70-3	SW8270C	11/11/2009	0	-1	9.50E-03	U	9.50E-03	3.00E-02	2.00E-02	3.41E-01		
B1 14-15'	53-70-3	SW8270C	11/11/2009	-14	-15	8.50E-03	U	8.55E-03	3.00E-02	2.00E-02	3.41E-01		
B1 14-15'	53-70-3	SW8270C	11/11/2009	-14	-15	1.00E-01	U	1.00E-01	3.30E-01	2.00E-02	3.41E-01		
B10-1	53-70-3	SW8270C	9/2/2009	-2	-3	1.09E-02	U	1.09E-02	3.33E-02	2.00E-02	3.41E-01		
B10-2	53-70-3	SW8270C	9/2/2009	-13	-14	9.32E-03	U	9.32E-03	3.33E-02	2.00E-02	3.41E-01		
B2 1-1.5	53-70-3	SW8270C	9/1/2009	-1	-1.5	8.67E-03	U	8.67E-03	3.33E-02	2.00E-02	3.41E-01		
B2 21-22.5	53-70-3	SW8270C	9/1/2009	-21	-22.5	1.03E-02	U	1.03E-02	3.33E-02	2.00E-02	3.41E-01		
B3 12-13	53-70-3	SW8270C	8/31/2009	-12	-13	8.25E-03	U	8.25E-03	3.33E-02	2.00E-02	3.41E-01		
B3 2-3	53-70-3	SW8270C	8/31/2009	-2	-3	9.65E-03	U	9.65E-03	3.33E-02	2.00E-02	3.41E-01		
B4 14-14.5	53-70-3	SW8270C	9/1/2009	-14	-14.5	9.26E-03	U	9.26E-03	3.33E-02	2.00E-02	3.41E-01		
B4 2-2.5	53-70-3	SW8270C	9/1/2009	-2	-2.5	1.00E-02	U	1.00E-02	3.33E-02	2.00E-02	3.41E-01		
B5-1	53-70-3	SW8270C	9/2/2009	-1	-1.5	9.84E-03	U	9.84E-03	3.33E-02	2.00E-02	3.41E-01		
B5-2	53-70-3	SW8270C	9/2/2009	-14.5	-15	9.37E-03	U	9.37E-03	3.33E-02	2.00E-02	3.41E-01		
B6-1	53-70-3	SW8270C	9/2/2009	-0.5	-1	9.09E-03	U	9.09E-03	3.33E-02	2.00E-02	3.41E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Dibenz(a,h)anthracene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6-2	53-70-3	SW8270C	9/2/2009	-14.5	-15	9.37E-03	U	9.37E-03	3.33E-02	2.00E-02	3.41E-01		
B7 0-1'	53-70-3	SW8270C	11/11/2009	0	-1	8.80E-03	U	8.77E-03	3.00E-02	2.00E-02	3.41E-01		
B7 0-1'	53-70-3	SW8270C	11/11/2009	0	-1	1.03E-01	U	1.03E-01	3.30E-01	2.00E-02	3.41E-01		
B7 14-15'	53-70-3	SW8270C	11/11/2009	-14	-15	9.00E-03	U	9.04E-03	3.00E-02	2.00E-02	3.41E-01		
B7 14-15'	53-70-3	SW8270C	11/11/2009	-14	-15	1.06E-01	U	1.06E-01	3.30E-01	2.00E-02	3.41E-01		
B8-1	53-70-3	SW8270C	9/2/2009	-1	-1.5	9.27E-03	U	9.27E-03	3.33E-02	2.00E-02	3.41E-01		
B8-2	53-70-3	SW8270C	9/2/2009	-14	-15	9.02E-03	U	9.02E-03	3.33E-02	2.00E-02	3.41E-01		
B9 0-1'	53-70-3	SW8270C	11/11/2009	0	-1	1.08E-01	U	1.08E-01	3.30E-01	2.00E-02	3.41E-01		
B9 0-1'	53-70-3	SW8270C	11/11/2009	0	-1	9.30E-03	U	9.26E-03	3.00E-02	2.00E-02	3.41E-01		
B9 14-15'	53-70-3	SW8270C	11/11/2009	-14	-15	9.00E-03	U	9.00E-03	3.00E-02	2.00E-02	3.41E-01		
B9 14-15'	53-70-3	SW8270C	11/11/2009	-14	-15	1.05E-01	U	1.05E-01	3.30E-01	2.00E-02	3.41E-01		

Dibenzofuran

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	132-64-9	SW8270C	8/31/2009	0	-1	1.45E-01	U	1.45E-01	3.30E-01	4.09E+01	4.09E+03		
B1 0-1'	132-64-9	SW8270C	11/11/2009	0	-1	1.50E-01	U	1.50E-01	3.30E-01	4.09E+01	4.09E+03		
B1 14-15'	132-64-9	SW8270C	11/11/2009	-14	-15	1.35E-01	U	1.35E-01	3.30E-01	4.09E+01	4.09E+03		
B10-1	132-64-9	SW8270C	9/2/2009	-2	-3	1.73E-01	U	1.73E-01	3.30E-01	4.09E+01	4.09E+03		
B10-2	132-64-9	SW8270C	9/2/2009	-13	-14	1.48E-01	U	1.48E-01	3.30E-01	4.09E+01	4.09E+03		
B2 1-1.5	132-64-9	SW8270C	9/1/2009	-1	-1.5	1.37E-01	U	1.37E-01	3.30E-01	4.09E+01	4.09E+03		
B2 21-22.5	132-64-9	SW8270C	9/1/2009	-21	-22.5	1.63E-01	U	1.63E-01	3.30E-01	4.09E+01	4.09E+03		
B3 12-13	132-64-9	SW8270C	8/31/2009	-12	-13	1.31E-01	U	1.31E-01	3.30E-01	4.09E+01	4.09E+03		
B3 2-3	132-64-9	SW8270C	8/31/2009	-2	-3	1.53E-01	U	1.53E-01	3.30E-01	4.09E+01	4.09E+03		
B4 14-14.5	132-64-9	SW8270C	9/1/2009	-14	-14.5	1.47E-01	U	1.47E-01	3.30E-01	4.09E+01	4.09E+03		
B4 2-2.5	132-64-9	SW8270C	9/1/2009	-2	-2.5	1.58E-01	U	1.58E-01	3.30E-01	4.09E+01	4.09E+03		
B5-1	132-64-9	SW8270C	9/2/2009	-1	-1.5	1.56E-01	U	1.56E-01	3.30E-01	4.09E+01	4.09E+03		
B5-2	132-64-9	SW8270C	9/2/2009	-14.5	-15	1.48E-01	U	1.48E-01	3.30E-01	4.09E+01	4.09E+03		
B6-1	132-64-9	SW8270C	9/2/2009	-0.5	-1	1.44E-01	U	1.44E-01	3.30E-01	4.09E+01	4.09E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Dibenzofuran

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6-2	132-64-9	SW8270C	9/2/2009	-14.5	-15	1.48E-01	U	1.48E-01	3.30E-01	4.09E+01	4.09E+03		
B7 0-1'	132-64-9	SW8270C	11/11/2009	0	-1	1.39E-01	U	1.39E-01	3.30E-01	4.09E+01	4.09E+03		
B7 14-15'	132-64-9	SW8270C	11/11/2009	-14	-15	1.43E-01	U	1.43E-01	3.30E-01	4.09E+01	4.09E+03		
B8-1	132-64-9	SW8270C	9/2/2009	-1	-1.5	1.47E-01	U	1.47E-01	3.30E-01	4.09E+01	4.09E+03		
B8-2	132-64-9	SW8270C	9/2/2009	-14	-15	1.43E-01	U	1.43E-01	3.30E-01	4.09E+01	4.09E+03		
B9 0-1'	132-64-9	SW8270C	11/11/2009	0	-1	1.46E-01	U	1.47E-01	3.30E-01	4.09E+01	4.09E+03		
B9 14-15'	132-64-9	SW8270C	11/11/2009	-14	-15	1.42E-01	U	1.42E-01	3.30E-01	4.09E+01	4.09E+03		

Dibromochloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	124-48-1	SW8260B	8/31/2009	0	-1	9.17E-04	U	9.17E-04	5.00E-03	3.41E+00	6.81E+02		
B1 0-1'	124-48-1	SW8260B	11/11/2009	0	-1	1.37E-03	U	1.37E-03	5.00E-03	3.41E+00	6.81E+02		
B1 14-15'	124-48-1	SW8260B	11/11/2009	-14	-15	1.00E-03	U	1.00E-03	5.00E-03	3.41E+00	6.81E+02		
B10-1	124-48-1	SW8260B	9/2/2009	-2	-3	1.09E-03	U	1.09E-03	5.00E-03	3.41E+00	6.81E+02		
B10-2	124-48-1	SW8260B	9/2/2009	-13	-14	9.32E-04	U	9.32E-04	5.00E-03	3.41E+00	6.81E+02		
B2 1-1.5	124-48-1	SW8260B	9/1/2009	-1	-1.5	8.67E-04	U	8.67E-04	5.00E-03	3.41E+00	6.81E+02		
B2 21-22.5	124-48-1	SW8260B	9/1/2009	-21	-22.5	1.03E-03	U	1.03E-03	5.00E-03	3.41E+00	6.81E+02		
B3 12-13	124-48-1	SW8260B	8/31/2009	-12	-13	8.25E-04	U	8.25E-04	5.00E-03	3.41E+00	6.81E+02		
B3 2-3	124-48-1	SW8260B	8/31/2009	-2	-3	9.64E-04	U	9.65E-04	5.00E-03	3.41E+00	6.81E+02		
B4 14.5-15	124-48-1	SW8260B	9/1/2009	-14.5	-15	9.37E-04	U	9.37E-04	5.00E-03	3.41E+00	6.81E+02		
B4 2-2.5	124-48-1	SW8260B	9/1/2009	-2	-2.5	1.00E-03	U	1.00E-03	5.00E-03	3.41E+00	6.81E+02		
B5-1	124-48-1	SW8260B	9/2/2009	-1	-1.5	9.84E-04	U	9.84E-04	5.00E-03	3.41E+00	6.81E+02		
B5-2	124-48-1	SW8260B	9/2/2009	-14.5	-15	9.37E-04	U	9.37E-04	5.00E-03	3.41E+00	6.81E+02		
B6-1	124-48-1	SW8260B	9/2/2009	-0.5	-1	9.09E-04	U	9.09E-04	5.00E-03	3.41E+00	6.81E+02		
B6-2	124-48-1	SW8260B	9/2/2009	-14.5	-15	9.37E-04	U	9.37E-04	5.00E-03	3.41E+00	6.81E+02		
B7 0-1'	124-48-1	SW8260B	11/11/2009	0	-1	1.08E-03	U	1.08E-03	5.00E-03	3.41E+00	6.81E+02		
B7 14-15'	124-48-1	SW8260B	11/11/2009	-14	-15	1.18E-03	U	1.18E-03	5.00E-03	3.41E+00	6.81E+02		
B8-1	124-48-1	SW8260B	9/2/2009	-1	-1.5	9.27E-04	U	9.27E-04	5.00E-03	3.41E+00	6.81E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Dibromochloromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8-2	124-48-1	SW8260B	9/2/2009	-14	-15	9.02E-04	U	9.02E-04	5.00E-03	3.41E+00	6.81E+02		
B8-3	124-48-1	SW8260B	9/2/2009	-8	-8.5	9.78E-04	U	9.78E-04	5.00E-03	3.41E+00	6.81E+02		
B9 0-1'	124-48-1	SW8260B	11/11/2009	0	-1	1.27E-03	U	1.27E-03	5.00E-03	3.41E+00	6.81E+02		
B9 14-15'	124-48-1	SW8260B	11/11/2009	-14	-15	1.16E-03	U	1.16E-03	5.00E-03	3.41E+00	6.81E+02		

Dibromomethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	74-95-3	SW8260B	8/31/2009	0	-1	1.56E-03	U	1.56E-03	5.00E-03	3.82E+01	2.66E+02		
B1 0-1'	74-95-3	SW8260B	11/11/2009	0	-1	2.33E-03	U	2.33E-03	5.00E-03	3.82E+01	2.66E+02		
B1 14-15'	74-95-3	SW8260B	11/11/2009	-14	-15	1.70E-03	U	1.70E-03	5.00E-03	3.82E+01	2.66E+02		
B10-1	74-95-3	SW8260B	9/2/2009	-2	-3	1.86E-03	U	1.86E-03	5.00E-03	3.82E+01	2.66E+02		
B10-2	74-95-3	SW8260B	9/2/2009	-13	-14	1.58E-03	U	1.58E-03	5.00E-03	3.82E+01	2.66E+02		
B2 1-1.5	74-95-3	SW8260B	9/1/2009	-1	-1.5	1.47E-03	U	1.47E-03	5.00E-03	3.82E+01	2.66E+02		
B2 21-22.5	74-95-3	SW8260B	9/1/2009	-21	-22.5	1.74E-03	U	1.74E-03	5.00E-03	3.82E+01	2.66E+02		
B3 12-13	74-95-3	SW8260B	8/31/2009	-12	-13	1.40E-03	U	1.40E-03	5.00E-03	3.82E+01	2.66E+02		
B3 2-3	74-95-3	SW8260B	8/31/2009	-2	-3	1.64E-03	U	1.64E-03	5.00E-03	3.82E+01	2.66E+02		
B4 14.5-15	74-95-3	SW8260B	9/1/2009	-14.5	-15	1.59E-03	U	1.59E-03	5.00E-03	3.82E+01	2.66E+02		
B4 2-2.5	74-95-3	SW8260B	9/1/2009	-2	-2.5	1.70E-03	U	1.70E-03	5.00E-03	3.82E+01	2.66E+02		
B5-1	74-95-3	SW8260B	9/2/2009	-1	-1.5	1.67E-03	U	1.67E-03	5.00E-03	3.82E+01	2.66E+02		
B5-2	74-95-3	SW8260B	9/2/2009	-14.5	-15	1.59E-03	U	1.59E-03	5.00E-03	3.82E+01	2.66E+02		
B6-1	74-95-3	SW8260B	9/2/2009	-0.5	-1	1.54E-03	U	1.54E-03	5.00E-03	3.82E+01	2.66E+02		
B6-2	74-95-3	SW8260B	9/2/2009	-14.5	-15	1.59E-03	U	1.59E-03	5.00E-03	3.82E+01	2.66E+02		
B7 0-1'	74-95-3	SW8260B	11/11/2009	0	-1	1.83E-03	U	1.83E-03	5.00E-03	3.82E+01	2.66E+02		
B7 14-15'	74-95-3	SW8260B	11/11/2009	-14	-15	2.00E-03	U	2.00E-03	5.00E-03	3.82E+01	2.66E+02		
B8-1	74-95-3	SW8260B	9/2/2009	-1	-1.5	1.57E-03	U	1.57E-03	5.00E-03	3.82E+01	2.66E+02		
B8-2	74-95-3	SW8260B	9/2/2009	-14	-15	1.53E-03	U	1.53E-03	5.00E-03	3.82E+01	2.66E+02		
B8-3	74-95-3	SW8260B	9/2/2009	-8	-8.5	1.66E-03	U	1.66E-03	5.00E-03	3.82E+01	2.66E+02		
B9 0-1'	74-95-3	SW8260B	11/11/2009	0	-1	2.16E-03	U	2.16E-03	5.00E-03	3.82E+01	2.66E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Dibromomethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B9 14-15'	74-95-3	SW8260B	11/11/2009	-14	-15	1.98E-03	U	1.98E-03	5.00E-03	3.82E+01	2.66E+02		

Dichlorodifluoromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	75-71-8	SW8260B	8/31/2009	0	-1	1.95E-03	U	1.95E-03	5.00E-03	2.04E+03	3.13E+03		
B1 0-1'	75-71-8	SW8260B	11/11/2009	0	-1	2.92E-03	U	2.92E-03	5.00E-03	2.04E+03	3.13E+03		
B1 14-15'	75-71-8	SW8260B	11/11/2009	-14	-15	2.13E-03	U	2.13E-03	5.00E-03	2.04E+03	3.13E+03		
B10-1	75-71-8	SW8260B	9/2/2009	-2	-3	2.33E-03	U	2.33E-03	5.00E-03	2.04E+03	3.13E+03		
B10-2	75-71-8	SW8260B	9/2/2009	-13	-14	1.98E-03	U	1.98E-03	5.00E-03	2.04E+03	3.13E+03		
B2 1-1.5	75-71-8	SW8260B	9/1/2009	-1	-1.5	1.85E-03	U	1.85E-03	5.00E-03	2.04E+03	3.13E+03		
B2 21-22.5	75-71-8	SW8260B	9/1/2009	-21	-22.5	2.18E-03	U	2.18E-03	5.00E-03	2.04E+03	3.13E+03		
B3 12-13	75-71-8	SW8260B	8/31/2009	-12	-13	1.76E-03	U	1.76E-03	5.00E-03	2.04E+03	3.13E+03		
B3 2-3	75-71-8	SW8260B	8/31/2009	-2	-3	2.05E-03	U	2.05E-03	5.00E-03	2.04E+03	3.13E+03		
B4 14.5-15	75-71-8	SW8260B	9/1/2009	-14.5	-15	2.00E-03	U	2.00E-03	5.00E-03	2.04E+03	3.13E+03		
B4 2-2.5	75-71-8	SW8260B	9/1/2009	-2	-2.5	2.13E-03	U	2.13E-03	5.00E-03	2.04E+03	3.13E+03		
B5-1	75-71-8	SW8260B	9/2/2009	-1	-1.5	2.09E-03	U	2.09E-03	5.00E-03	2.04E+03	3.13E+03		
B5-2	75-71-8	SW8260B	9/2/2009	-14.5	-15	2.00E-03	U	2.00E-03	5.00E-03	2.04E+03	3.13E+03		
B6-1	75-71-8	SW8260B	9/2/2009	-0.5	-1	1.94E-03	U	1.94E-03	5.00E-03	2.04E+03	3.13E+03		
B6-2	75-71-8	SW8260B	9/2/2009	-14.5	-15	2.00E-03	U	2.00E-03	5.00E-03	2.04E+03	3.13E+03		
B7 0-1'	75-71-8	SW8260B	11/11/2009	0	-1	2.31E-03	U	2.31E-03	5.00E-03	2.04E+03	3.13E+03		
B7 14-15'	75-71-8	SW8260B	11/11/2009	-14	-15	2.52E-03	U	2.52E-03	5.00E-03	2.04E+03	3.13E+03		
B8-1	75-71-8	SW8260B	9/2/2009	-1	-1.5	1.97E-03	U	1.97E-03	5.00E-03	2.04E+03	3.13E+03		
B8-2	75-71-8	SW8260B	9/2/2009	-14	-15	1.92E-03	U	1.92E-03	5.00E-03	2.04E+03	3.13E+03		
B8-3	75-71-8	SW8260B	9/2/2009	-8	-8.5	2.08E-03	U	2.08E-03	5.00E-03	2.04E+03	3.13E+03		
B9 0-1'	75-71-8	SW8260B	11/11/2009	0	-1	2.71E-03	U	2.71E-03	5.00E-03	2.04E+03	3.13E+03		
B9 14-15'	75-71-8	SW8260B	11/11/2009	-14	-15	2.48E-03	U	2.48E-03	5.00E-03	2.04E+03	3.13E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Diethyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	84-66-2	SW8270C	8/31/2009	0	-1	1.44E-01	U	1.44E-01	3.30E-01	8.18E+03	8.18E+05		
B1 0-1'	84-66-2	SW8270C	11/11/2009	0	-1	1.49E-01	U	1.49E-01	3.30E-01	8.18E+03	8.18E+05		
B1 14-15'	84-66-2	SW8270C	11/11/2009	-14	-15	1.34E-01	U	1.34E-01	3.30E-01	8.18E+03	8.18E+05		
B10-1	84-66-2	SW8270C	9/2/2009	-2	-3	1.72E-01	U	1.72E-01	3.30E-01	8.18E+03	8.18E+05		
B10-2	84-66-2	SW8270C	9/2/2009	-13	-14	1.46E-01	U	1.46E-01	3.30E-01	8.18E+03	8.18E+05		
B2 1-1.5	84-66-2	SW8270C	9/1/2009	-1	-1.5	1.36E-01	U	1.36E-01	3.30E-01	8.18E+03	8.18E+05		
B2 21-22.5	84-66-2	SW8270C	9/1/2009	-21	-22.5	1.61E-01	U	1.61E-01	3.30E-01	8.18E+03	8.18E+05		
B3 12-13	84-66-2	SW8270C	8/31/2009	-12	-13	1.30E-01	U	1.30E-01	3.30E-01	8.18E+03	8.18E+05		
B3 2-3	84-66-2	SW8270C	8/31/2009	-2	-3	1.52E-01	U	1.52E-01	3.30E-01	8.18E+03	8.18E+05		
B4 14-14.5	84-66-2	SW8270C	9/1/2009	-14	-14.5	1.45E-01	U	1.46E-01	3.30E-01	8.18E+03	8.18E+05		
B4 2-2.5	84-66-2	SW8270C	9/1/2009	-2	-2.5	1.57E-01	U	1.57E-01	3.30E-01	8.18E+03	8.18E+05		
B5-1	84-66-2	SW8270C	9/2/2009	-1	-1.5	1.55E-01	U	1.55E-01	3.30E-01	8.18E+03	8.18E+05		
B5-2	84-66-2	SW8270C	9/2/2009	-14.5	-15	1.47E-01	U	1.47E-01	3.30E-01	8.18E+03	8.18E+05		
B6-1	84-66-2	SW8270C	9/2/2009	-0.5	-1	1.43E-01	U	1.43E-01	3.30E-01	8.18E+03	8.18E+05		
B6-2	84-66-2	SW8270C	9/2/2009	-14.5	-15	1.47E-01	U	1.47E-01	3.30E-01	8.18E+03	8.18E+05		
B7 0-1'	84-66-2	SW8270C	11/11/2009	0	-1	1.38E-01	U	1.38E-01	3.30E-01	8.18E+03	8.18E+05		
B7 14-15'	84-66-2	SW8270C	11/11/2009	-14	-15	1.42E-01	U	1.42E-01	3.30E-01	8.18E+03	8.18E+05		
B8-1	84-66-2	SW8270C	9/2/2009	-1	-1.5	1.46E-01	U	1.46E-01	3.30E-01	8.18E+03	8.18E+05		
B8-2	84-66-2	SW8270C	9/2/2009	-14	-15	1.42E-01	U	1.42E-01	3.30E-01	8.18E+03	8.18E+05		
B9 0-1'	84-66-2	SW8270C	11/11/2009	0	-1	1.45E-01	U	1.45E-01	3.30E-01	8.18E+03	8.18E+05		
B9 14-15'	84-66-2	SW8270C	11/11/2009	-14	-15	1.41E-01	U	1.41E-01	3.30E-01	8.18E+03	8.18E+05		

Dimethyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	131-11-3	SW8270C	8/31/2009	0	-1	1.49E-01	U	1.49E-01	3.30E-01	8.18E+03	8.18E+05		
B1 0-1'	131-11-3	SW8270C	11/11/2009	0	-1	1.54E-01	U	1.54E-01	3.30E-01	8.18E+03	8.18E+05		
B1 14-15'	131-11-3	SW8270C	11/11/2009	-14	-15	1.39E-01	U	1.38E-01	3.30E-01	8.18E+03	8.18E+05		
B10-1	131-11-3	SW8270C	9/2/2009	-2	-3	1.77E-01	U	1.78E-01	3.30E-01	8.18E+03	8.18E+05		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Dimethyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-2	131-11-3	SW8270C	9/2/2009	-13	-14	1.51E-01	U	1.51E-01	3.30E-01	8.18E+03	8.18E+05		
B2 1-1.5	131-11-3	SW8270C	9/1/2009	-1	-1.5	1.41E-01	U	1.41E-01	3.30E-01	8.18E+03	8.18E+05		
B2 21-22.5	131-11-3	SW8270C	9/1/2009	-21	-22.5	1.66E-01	U	1.66E-01	3.30E-01	8.18E+03	8.18E+05		
B3 12-13	131-11-3	SW8270C	8/31/2009	-12	-13	1.34E-01	U	1.34E-01	3.30E-01	8.18E+03	8.18E+05		
B3 2-3	131-11-3	SW8270C	8/31/2009	-2	-3	1.57E-01	U	1.56E-01	3.30E-01	8.18E+03	8.18E+05		
B4 14-14.5	131-11-3	SW8270C	9/1/2009	-14	-14.5	1.50E-01	U	1.50E-01	3.30E-01	8.18E+03	8.18E+05		
B4 2-2.5	131-11-3	SW8270C	9/1/2009	-2	-2.5	1.62E-01	U	1.62E-01	3.30E-01	8.18E+03	8.18E+05		
B5-1	131-11-3	SW8270C	9/2/2009	-1	-1.5	1.60E-01	U	1.60E-01	3.30E-01	8.18E+03	8.18E+05		
B5-2	131-11-3	SW8270C	9/2/2009	-14.5	-15	1.52E-01	U	1.52E-01	3.30E-01	8.18E+03	8.18E+05		
B6-1	131-11-3	SW8270C	9/2/2009	-0.5	-1	1.47E-01	U	1.47E-01	3.30E-01	8.18E+03	8.18E+05		
B6-2	131-11-3	SW8270C	9/2/2009	-14.5	-15	1.52E-01	U	1.52E-01	3.30E-01	8.18E+03	8.18E+05		
B7 0-1'	131-11-3	SW8270C	11/11/2009	0	-1	1.42E-01	U	1.42E-01	3.30E-01	8.18E+03	8.18E+05		
B7 14-15'	131-11-3	SW8270C	11/11/2009	-14	-15	1.46E-01	U	1.46E-01	3.30E-01	8.18E+03	8.18E+05		
B8-1	131-11-3	SW8270C	9/2/2009	-1	-1.5	1.50E-01	U	1.50E-01	3.30E-01	8.18E+03	8.18E+05		
B8-2	131-11-3	SW8270C	9/2/2009	-14	-15	1.46E-01	U	1.46E-01	3.30E-01	8.18E+03	8.18E+05		
B9 0-1'	131-11-3	SW8270C	11/11/2009	0	-1	1.50E-01	U	1.50E-01	3.30E-01	8.18E+03	8.18E+05		
B9 14-15'	131-11-3	SW8270C	11/11/2009	-14	-15	1.46E-01	U	1.46E-01	3.30E-01	8.18E+03	8.18E+05		

Di-n-butyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	84-74-2	SW8270C	8/31/2009	0	-1	1.46E-01	U	1.47E-01	3.30E-01	1.02E+03	1.02E+05		
B1 0-1'	84-74-2	SW8270C	11/11/2009	0	-1	1.51E-01	U	1.51E-01	3.30E-01	1.02E+03	1.02E+05		
B1 14-15'	84-74-2	SW8270C	11/11/2009	-14	-15	1.36E-01	U	1.36E-01	3.30E-01	1.02E+03	1.02E+05		
B10-1	84-74-2	SW8270C	9/2/2009	-2	-3	1.75E-01	U	1.75E-01	3.30E-01	1.02E+03	1.02E+05		
B10-2	84-74-2	SW8270C	9/2/2009	-13	-14	1.49E-01	U	1.49E-01	3.30E-01	1.02E+03	1.02E+05		
B2 1-1.5	84-74-2	SW8270C	9/1/2009	-1	-1.5	1.39E-01	U	1.38E-01	3.30E-01	1.02E+03	1.02E+05		
B2 21-22.5	84-74-2	SW8270C	9/1/2009	-21	-22.5	1.64E-01	U	1.64E-01	3.30E-01	1.02E+03	1.02E+05		
B3 12-13	84-74-2	SW8270C	8/31/2009	-12	-13	1.32E-01	U	1.32E-01	3.30E-01	1.02E+03	1.02E+05		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Di-n-butyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B3 2-3	84-74-2	SW8270C	8/31/2009	-2	-3	1.54E-01	U	1.54E-01	3.30E-01	1.02E+03	1.02E+05		
B4 14-14.5	84-74-2	SW8270C	9/1/2009	-14	-14.5	1.48E-01	U	1.48E-01	3.30E-01	1.02E+03	1.02E+05		
B4 2-2.5	84-74-2	SW8270C	9/1/2009	-2	-2.5	1.60E-01	U	1.60E-01	3.30E-01	1.02E+03	1.02E+05		
B5-1	84-74-2	SW8270C	9/2/2009	-1	-1.5	1.57E-01	U	1.57E-01	3.30E-01	1.02E+03	1.02E+05		
B5-2	84-74-2	SW8270C	9/2/2009	-14.5	-15	1.50E-01	U	1.50E-01	3.30E-01	1.02E+03	1.02E+05		
B6-1	84-74-2	SW8270C	9/2/2009	-0.5	-1	1.45E-01	U	1.45E-01	3.30E-01	1.02E+03	1.02E+05		
B6-2	84-74-2	SW8270C	9/2/2009	-14.5	-15	1.50E-01	U	1.50E-01	3.30E-01	1.02E+03	1.02E+05		
B7 0-1'	84-74-2	SW8270C	11/11/2009	0	-1	1.40E-01	U	1.40E-01	3.30E-01	1.02E+03	1.02E+05		
B7 14-15'	84-74-2	SW8270C	11/11/2009	-14	-15	1.44E-01	U	1.44E-01	3.30E-01	1.02E+03	1.02E+05		
B8-1	84-74-2	SW8270C	9/2/2009	-1	-1.5	1.48E-01	U	1.48E-01	3.30E-01	1.02E+03	1.02E+05		
B8-2	84-74-2	SW8270C	9/2/2009	-14	-15	1.44E-01	U	1.44E-01	3.30E-01	1.02E+03	1.02E+05		
B9 0-1'	84-74-2	SW8270C	11/11/2009	0	-1	1.48E-01	U	1.48E-01	3.30E-01	1.02E+03	1.02E+05		
B9 14-15'	84-74-2	SW8270C	11/11/2009	-14	-15	1.43E-01	U	1.44E-01	3.30E-01	1.02E+03	1.02E+05		

Di-n-octyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	117-84-0	SW8270C	8/31/2009	0	-1	1.94E-01	U	1.94E-01	3.30E-01	2.04E+02	1.97E+04		
B1 0-1'	117-84-0	SW8270C	11/11/2009	0	-1	2.01E-01	U	2.01E-01	3.30E-01	2.04E+02	1.97E+04		
B1 14-15'	117-84-0	SW8270C	11/11/2009	-14	-15	1.81E-01	U	1.81E-01	3.30E-01	2.04E+02	1.97E+04		
B10-1	117-84-0	SW8270C	9/2/2009	-2	-3	2.32E-01	U	2.32E-01	3.30E-01	2.04E+02	1.97E+04		
B10-2	117-84-0	SW8270C	9/2/2009	-13	-14	1.97E-01	U	1.97E-01	3.30E-01	2.04E+02	1.97E+04		
B2 1-1.5	117-84-0	SW8270C	9/1/2009	-1	-1.5	1.84E-01	U	1.84E-01	3.30E-01	2.04E+02	1.97E+04		
B2 21-22.5	117-84-0	SW8270C	9/1/2009	-21	-22.5	2.17E-01	U	2.17E-01	3.30E-01	2.04E+02	1.97E+04		
B3 12-13	117-84-0	SW8270C	8/31/2009	-12	-13	1.75E-01	U	1.75E-01	3.30E-01	2.04E+02	1.97E+04		
B3 2-3	117-84-0	SW8270C	8/31/2009	-2	-3	2.04E-01	U	2.04E-01	3.30E-01	2.04E+02	1.97E+04		
B4 14-14.5	117-84-0	SW8270C	9/1/2009	-14	-14.5	1.96E-01	U	1.96E-01	3.30E-01	2.04E+02	1.97E+04		
B4 2-2.5	117-84-0	SW8270C	9/1/2009	-2	-2.5	2.12E-01	U	2.12E-01	3.30E-01	2.04E+02	1.97E+04		
B5-1	117-84-0	SW8270C	9/2/2009	-1	-1.5	2.08E-01	U	2.08E-01	3.30E-01	2.04E+02	1.97E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Di-n-octyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B5-2	117-84-0	SW8270C	9/2/2009	-14.5	-15	1.98E-01	U	1.98E-01	3.30E-01	2.04E+02	1.97E+04		
B6-1	117-84-0	SW8270C	9/2/2009	-0.5	-1	1.92E-01	U	1.92E-01	3.30E-01	2.04E+02	1.97E+04		
B6-2	117-84-0	SW8270C	9/2/2009	-14.5	-15	1.98E-01	U	1.98E-01	3.30E-01	2.04E+02	1.97E+04		
B7 0-1'	117-84-0	SW8270C	11/11/2009	0	-1	1.85E-01	U	1.85E-01	3.30E-01	2.04E+02	1.97E+04		
B7 14-15'	117-84-0	SW8270C	11/11/2009	-14	-15	1.91E-01	U	1.91E-01	3.30E-01	2.04E+02	1.97E+04		
B8-1	117-84-0	SW8270C	9/2/2009	-1	-1.5	1.96E-01	U	1.96E-01	3.30E-01	2.04E+02	1.97E+04		
B8-2	117-84-0	SW8270C	9/2/2009	-14	-15	1.91E-01	U	1.91E-01	3.30E-01	2.04E+02	1.97E+04		
B9 0-1'	117-84-0	SW8270C	11/11/2009	0	-1	1.96E-01	U	1.96E-01	3.30E-01	2.04E+02	1.97E+04		
B9 14-15'	117-84-0	SW8270C	11/11/2009	-14	-15	1.90E-01	U	1.90E-01	3.30E-01	2.04E+02	1.97E+04		

Ethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	100-41-4	SW8260B	8/31/2009	0	-1	9.29E-04	U	9.29E-04	5.00E-03	7.00E+01	6.91E+03		
B1 0-1'	100-41-4	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	5.00E-03	7.00E+01	6.91E+03		
B1 14-15'	100-41-4	SW8260B	11/11/2009	-14	-15	1.01E-03	U	1.01E-03	5.00E-03	7.00E+01	6.91E+03		
B10-1	100-41-4	SW8260B	9/2/2009	-2	-3	1.11E-03	U	1.11E-03	5.00E-03	7.00E+01	6.91E+03		
B10-2	100-41-4	SW8260B	9/2/2009	-13	-14	9.43E-04	U	9.43E-04	5.00E-03	7.00E+01	6.91E+03		
B2 1-1.5	100-41-4	SW8260B	9/1/2009	-1	-1.5	8.78E-04	U	8.78E-04	5.00E-03	7.00E+01	6.91E+03		
B2 21-22.5	100-41-4	SW8260B	9/1/2009	-21	-22.5	1.04E-03	U	1.04E-03	5.00E-03	7.00E+01	6.91E+03		
B3 12-13	100-41-4	SW8260B	8/31/2009	-12	-13	8.35E-04	U	8.36E-04	5.00E-03	7.00E+01	6.91E+03		
B3 2-3	100-41-4	SW8260B	8/31/2009	-2	-3	9.77E-04	U	9.77E-04	5.00E-03	7.00E+01	6.91E+03		
B4 14.5-15	100-41-4	SW8260B	9/1/2009	-14.5	-15	9.49E-04	U	9.49E-04	5.00E-03	7.00E+01	6.91E+03		
B4 2-2.5	100-41-4	SW8260B	9/1/2009	-2	-2.5	1.01E-03	U	1.01E-03	5.00E-03	7.00E+01	6.91E+03		
B5-1	100-41-4	SW8260B	9/2/2009	-1	-1.5	9.96E-04	U	9.96E-04	5.00E-03	7.00E+01	6.91E+03		
B5-2	100-41-4	SW8260B	9/2/2009	-14.5	-15	9.49E-04	U	9.49E-04	5.00E-03	7.00E+01	6.91E+03		
B6-1	100-41-4	SW8260B	9/2/2009	-0.5	-1	9.20E-04	U	9.21E-04	5.00E-03	7.00E+01	6.91E+03		
B6-2	100-41-4	SW8260B	9/2/2009	-14.5	-15	9.49E-04	U	9.49E-04	5.00E-03	7.00E+01	6.91E+03		
B7 0-1'	100-41-4	SW8260B	11/11/2009	0	-1	1.09E-03	U	1.09E-03	5.00E-03	7.00E+01	6.91E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Ethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 14-15'	100-41-4	SW8260B	11/11/2009	-14	-15	1.20E-03	U	1.20E-03	5.00E-03	7.00E+01	6.91E+03		
B8-1	100-41-4	SW8260B	9/2/2009	-1	-1.5	9.39E-04	U	9.39E-04	5.00E-03	7.00E+01	6.91E+03		
B8-2	100-41-4	SW8260B	9/2/2009	-14	-15	9.13E-04	U	9.13E-04	5.00E-03	7.00E+01	6.91E+03		
B8-3	100-41-4	SW8260B	9/2/2009	-8	-8.5	9.90E-04	U	9.90E-04	5.00E-03	7.00E+01	6.91E+03		
B9 0-1'	100-41-4	SW8260B	11/11/2009	0	-1	1.29E-03	U	1.29E-03	5.00E-03	7.00E+01	6.91E+03		
B9 14-15'	100-41-4	SW8260B	11/11/2009	-14	-15	1.18E-03	U	1.18E-03	5.00E-03	7.00E+01	6.91E+03		

Fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	206-44-0	SW8270C	8/31/2009	0	-1	1.01E-01	U	1.01E-01	3.30E-01	4.09E+02	3.55E+04		
B1 0-1'	206-44-0	SW8270C	11/11/2009	0	-1	1.04E-01	U	1.04E-01	3.30E-01	4.09E+02	3.55E+04		
B1 14-15'	206-44-0	SW8270C	11/11/2009	-14	-15	9.38E-02	U	9.38E-02	3.30E-01	4.09E+02	3.55E+04		
B10-1	206-44-0	SW8270C	9/2/2009	-2	-3	1.20E-01	U	1.20E-01	3.30E-01	4.09E+02	3.55E+04		
B10-2	206-44-0	SW8270C	9/2/2009	-13	-14	1.02E-01	U	1.02E-01	3.30E-01	4.09E+02	3.55E+04		
B2 1-1.5	206-44-0	SW8270C	9/1/2009	-1	-1.5	9.53E-02	U	9.53E-02	3.30E-01	4.09E+02	3.55E+04		
B2 21-22.5	206-44-0	SW8270C	9/1/2009	-21	-22.5	1.13E-01	U	1.13E-01	3.30E-01	4.09E+02	3.55E+04		
B3 12-13	206-44-0	SW8270C	8/31/2009	-12	-13	9.07E-02	U	9.07E-02	3.30E-01	4.09E+02	3.55E+04		
B3 2-3	206-44-0	SW8270C	8/31/2009	-2	-3	1.06E-01	U	1.06E-01	3.30E-01	4.09E+02	3.55E+04		
B4 14-14.5	206-44-0	SW8270C	9/1/2009	-14	-14.5	1.02E-01	U	1.02E-01	3.30E-01	4.09E+02	3.55E+04		
B4 2-2.5	206-44-0	SW8270C	9/1/2009	-2	-2.5	1.10E-01	U	1.10E-01	3.30E-01	4.09E+02	3.55E+04		
B5-1	206-44-0	SW8270C	9/2/2009	-1	-1.5	1.08E-01	U	1.08E-01	3.30E-01	4.09E+02	3.55E+04		
B5-2	206-44-0	SW8270C	9/2/2009	-14.5	-15	1.03E-01	U	1.03E-01	3.30E-01	4.09E+02	3.55E+04		
B6-1	206-44-0	SW8270C	9/2/2009	-0.5	-1	9.99E-02	U	9.99E-02	3.30E-01	4.09E+02	3.55E+04		
B6-2	206-44-0	SW8270C	9/2/2009	-14.5	-15	1.03E-01	U	1.03E-01	3.30E-01	4.09E+02	3.55E+04		
B7 0-1'	206-44-0	SW8270C	11/11/2009	0	-1	9.62E-02	U	9.62E-02	3.30E-01	4.09E+02	3.55E+04		
B7 14-15'	206-44-0	SW8270C	11/11/2009	-14	-15	9.92E-02	U	9.92E-02	3.30E-01	4.09E+02	3.55E+04		
B8-1	206-44-0	SW8270C	9/2/2009	-1	-1.5	1.02E-01	U	1.02E-01	3.30E-01	4.09E+02	3.55E+04		
B8-2	206-44-0	SW8270C	9/2/2009	-14	-15	9.91E-02	U	9.91E-02	3.30E-01	4.09E+02	3.55E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B9 0-1'	206-44-0	SW8270C	11/11/2009	0	-1	1.02E-01	U	1.02E-01	3.30E-01	4.09E+02	3.55E+04		
B9 14-15'	206-44-0	SW8270C	11/11/2009	-14	-15	9.87E-02	U	9.87E-02	3.30E-01	4.09E+02	3.55E+04		

Fluorene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	86-73-7	SW8270C	8/31/2009	0	-1	1.46E-01	U	1.47E-01	3.30E-01	4.09E+02	3.55E+04		
B1 0-1'	86-73-7	SW8270C	11/11/2009	0	-1	1.51E-01	U	1.51E-01	3.30E-01	4.09E+02	3.55E+04		
B1 14-15'	86-73-7	SW8270C	11/11/2009	-14	-15	1.36E-01	U	1.36E-01	3.30E-01	4.09E+02	3.55E+04		
B10-1	86-73-7	SW8270C	9/2/2009	-2	-3	1.75E-01	U	1.75E-01	3.30E-01	4.09E+02	3.55E+04		
B10-2	86-73-7	SW8270C	9/2/2009	-13	-14	1.49E-01	U	1.49E-01	3.30E-01	4.09E+02	3.55E+04		
B2 1-1.5	86-73-7	SW8270C	9/1/2009	-1	-1.5	1.39E-01	U	1.38E-01	3.30E-01	4.09E+02	3.55E+04		
B2 21-22.5	86-73-7	SW8270C	9/1/2009	-21	-22.5	1.64E-01	U	1.64E-01	3.30E-01	4.09E+02	3.55E+04		
B3 12-13	86-73-7	SW8270C	8/31/2009	-12	-13	1.32E-01	U	1.32E-01	3.30E-01	4.09E+02	3.55E+04		
B3 2-3	86-73-7	SW8270C	8/31/2009	-2	-3	1.54E-01	U	1.54E-01	3.30E-01	4.09E+02	3.55E+04		
B4 14-14.5	86-73-7	SW8270C	9/1/2009	-14	-14.5	1.48E-01	U	1.48E-01	3.30E-01	4.09E+02	3.55E+04		
B4 2-2.5	86-73-7	SW8270C	9/1/2009	-2	-2.5	1.60E-01	U	1.60E-01	3.30E-01	4.09E+02	3.55E+04		
B5-1	86-73-7	SW8270C	9/2/2009	-1	-1.5	1.57E-01	U	1.57E-01	3.30E-01	4.09E+02	3.55E+04		
B5-2	86-73-7	SW8270C	9/2/2009	-14.5	-15	1.50E-01	U	1.50E-01	3.30E-01	4.09E+02	3.55E+04		
B6-1	86-73-7	SW8270C	9/2/2009	-0.5	-1	1.45E-01	U	1.45E-01	3.30E-01	4.09E+02	3.55E+04		
B6-2	86-73-7	SW8270C	9/2/2009	-14.5	-15	1.50E-01	U	1.50E-01	3.30E-01	4.09E+02	3.55E+04		
B7 0-1'	86-73-7	SW8270C	11/11/2009	0	-1	1.40E-01	U	1.40E-01	3.30E-01	4.09E+02	3.55E+04		
B7 14-15'	86-73-7	SW8270C	11/11/2009	-14	-15	1.44E-01	U	1.44E-01	3.30E-01	4.09E+02	3.55E+04		
B8-1	86-73-7	SW8270C	9/2/2009	-1	-1.5	1.48E-01	U	1.48E-01	3.30E-01	4.09E+02	3.55E+04		
B8-2	86-73-7	SW8270C	9/2/2009	-14	-15	1.44E-01	U	1.44E-01	3.30E-01	4.09E+02	3.55E+04		
B9 0-1'	86-73-7	SW8270C	11/11/2009	0	-1	1.48E-01	U	1.48E-01	3.30E-01	4.09E+02	3.55E+04		
B9 14-15'	86-73-7	SW8270C	11/11/2009	-14	-15	1.43E-01	U	1.44E-01	3.30E-01	4.09E+02	3.55E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Hexachlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	118-74-1	SW8270C	8/31/2009	0	-1	8.72E-02	U	8.72E-02	3.30E-01	1.00E-01	1.01E+00		
B1 0-1	118-74-1	SW8270C	8/31/2009	0	-1	1.51E-02	U	1.51E-02	3.33E-02	1.00E-01	1.01E+00		
B1 0-1'	118-74-1	SW8270C	11/11/2009	0	-1	1.56E-02	U	1.56E-02	3.30E-02	1.00E-01	1.01E+00		
B1 14-15'	118-74-1	SW8270C	11/11/2009	-14	-15	1.41E-02	U	1.41E-02	3.30E-02	1.00E-01	1.01E+00		
B10-1	118-74-1	SW8270C	9/2/2009	-2	-3	1.80E-02	U	1.80E-02	3.33E-02	1.00E-01	1.01E+00		
B10-1	118-74-1	SW8270C	9/2/2009	-2	-3	1.04E-01	U	1.04E-01	3.30E-01	1.00E-01	1.01E+00		
B10-2	118-74-1	SW8270C	9/2/2009	-13	-14	8.85E-02	U	8.85E-02	3.30E-01	1.00E-01	1.01E+00		
B10-2	118-74-1	SW8270C	9/2/2009	-13	-14	1.53E-02	U	1.53E-02	3.33E-02	1.00E-01	1.01E+00		
B2 1-1.5	118-74-1	SW8270C	9/1/2009	-1	-1.5	8.24E-02	U	8.24E-02	3.30E-01	1.00E-01	1.01E+00		
B2 1-1.5	118-74-1	SW8270C	9/1/2009	-1	-1.5	1.43E-02	U	1.43E-02	3.33E-02	1.00E-01	1.01E+00		
B2 21-22.5	118-74-1	SW8270C	9/1/2009	-21	-22.5	1.69E-02	U	1.69E-02	3.33E-02	1.00E-01	1.01E+00		
B2 21-22.5	118-74-1	SW8270C	9/1/2009	-21	-22.5	9.75E-02	U	9.75E-02	3.30E-01	1.00E-01	1.01E+00		
B3 12-13	118-74-1	SW8270C	8/31/2009	-12	-13	1.36E-02	U	1.36E-02	3.33E-02	1.00E-01	1.01E+00		
B3 12-13	118-74-1	SW8270C	8/31/2009	-12	-13	7.84E-02	U	7.84E-02	3.30E-01	1.00E-01	1.01E+00		
B3 2-3	118-74-1	SW8270C	8/31/2009	-2	-3	9.17E-02	U	9.17E-02	3.30E-01	1.00E-01	1.01E+00		
B3 2-3	118-74-1	SW8270C	8/31/2009	-2	-3	1.59E-02	U	1.59E-02	3.33E-02	1.00E-01	1.01E+00		
B4 14-14.5	118-74-1	SW8270C	9/1/2009	-14	-14.5	8.80E-02	U	8.80E-02	3.30E-01	1.00E-01	1.01E+00		
B4 14-14.5	118-74-1	SW8270C	9/1/2009	-14	-14.5	1.53E-02	U	1.53E-02	3.33E-02	1.00E-01	1.01E+00		
B4 2-2.5	118-74-1	SW8270C	9/1/2009	-2	-2.5	9.51E-02	U	9.51E-02	3.30E-01	1.00E-01	1.01E+00		
B4 2-2.5	118-74-1	SW8270C	9/1/2009	-2	-2.5	1.65E-02	U	1.65E-02	3.33E-02	1.00E-01	1.01E+00		
B5-1	118-74-1	SW8270C	9/2/2009	-1	-1.5	9.35E-02	U	9.35E-02	3.30E-01	1.00E-01	1.01E+00		
B5-1	118-74-1	SW8270C	9/2/2009	-1	-1.5	1.62E-02	U	1.62E-02	3.33E-02	1.00E-01	1.01E+00		
B5-2	118-74-1	SW8270C	9/2/2009	-14.5	-15	1.54E-02	U	1.54E-02	3.33E-02	1.00E-01	1.01E+00		
B5-2	118-74-1	SW8270C	9/2/2009	-14.5	-15	8.91E-02	U	8.91E-02	3.30E-01	1.00E-01	1.01E+00		
B6-1	118-74-1	SW8270C	9/2/2009	-0.5	-1	1.50E-02	U	1.50E-02	3.33E-02	1.00E-01	1.01E+00		
B6-1	118-74-1	SW8270C	9/2/2009	-0.5	-1	8.64E-02	U	8.64E-02	3.30E-01	1.00E-01	1.01E+00		
B6-2	118-74-1	SW8270C	9/2/2009	-14.5	-15	8.91E-02	U	8.91E-02	3.30E-01	1.00E-01	1.01E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Hexachlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6-2	118-74-1	SW8270C	9/2/2009	-14.5	-15	1.54E-02	U	1.54E-02	3.33E-02	1.00E-01	1.01E+00		
B7 0-1'	118-74-1	SW8270C	11/11/2009	0	-1	1.44E-02	U	1.44E-02	3.30E-02	1.00E-01	1.01E+00		
B7 14-15'	118-74-1	SW8270C	11/11/2009	-14	-15	1.49E-02	U	1.49E-02	3.30E-02	1.00E-01	1.01E+00		
B8-1	118-74-1	SW8270C	9/2/2009	-1	-1.5	8.81E-02	U	8.81E-02	3.30E-01	1.00E-01	1.01E+00		
B8-1	118-74-1	SW8270C	9/2/2009	-1	-1.5	1.53E-02	U	1.53E-02	3.33E-02	1.00E-01	1.01E+00		
B8-2	118-74-1	SW8270C	9/2/2009	-14	-15	8.57E-02	U	8.57E-02	3.30E-01	1.00E-01	1.01E+00		
B8-2	118-74-1	SW8270C	9/2/2009	-14	-15	1.49E-02	U	1.49E-02	3.33E-02	1.00E-01	1.01E+00		
B9 0-1'	118-74-1	SW8270C	11/11/2009	0	-1	1.52E-02	U	1.52E-02	3.30E-02	1.00E-01	1.01E+00		
B9 14-15'	118-74-1	SW8270C	11/11/2009	-14	-15	1.48E-02	U	1.48E-02	3.30E-02	1.00E-01	1.01E+00		

Hexachlorobutadiene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	87-68-3	SW8260B	8/31/2009	0	-1	2.19E-03	U	2.19E-03	5.00E-03	2.04E+00	3.23E+01		
B1 0-1	87-68-3	SW8270C	8/31/2009	0	-1	1.29E-01	U	1.29E-01	3.30E-01	2.04E+00	3.23E+01		
B1 0-1'	87-68-3	SW8270C	11/11/2009	0	-1	1.33E-01	U	1.33E-01	3.30E-01	2.04E+00	3.23E+01		
B1 0-1'	87-68-3	SW8260B	11/11/2009	0	-1	3.27E-03	U	3.27E-03	5.00E-03	2.04E+00	3.23E+01		
B1 14-15'	87-68-3	SW8260B	11/11/2009	-14	-15	2.38E-03	U	2.38E-03	5.00E-03	2.04E+00	3.23E+01		
B1 14-15'	87-68-3	SW8270C	11/11/2009	-14	-15	1.20E-01	U	1.20E-01	3.30E-01	2.04E+00	3.23E+01		
B10-1	87-68-3	SW8270C	9/2/2009	-2	-3	1.54E-01	U	1.54E-01	3.30E-01	2.04E+00	3.23E+01		
B10-1	87-68-3	SW8260B	9/2/2009	-2	-3	2.61E-03	U	2.61E-03	5.00E-03	2.04E+00	3.23E+01		
B10-2	87-68-3	SW8260B	9/2/2009	-13	-14	2.22E-03	U	2.22E-03	5.00E-03	2.04E+00	3.23E+01		
B10-2	87-68-3	SW8270C	9/2/2009	-13	-14	1.31E-01	U	1.31E-01	3.30E-01	2.04E+00	3.23E+01		
B2 1-1.5	87-68-3	SW8270C	9/1/2009	-1	-1.5	1.22E-01	U	1.22E-01	3.30E-01	2.04E+00	3.23E+01		
B2 1-1.5	87-68-3	SW8260B	9/1/2009	-1	-1.5	2.07E-03	U	2.07E-03	5.00E-03	2.04E+00	3.23E+01		
B2 21-22.5	87-68-3	SW8270C	9/1/2009	-21	-22.5	1.44E-01	U	1.44E-01	3.30E-01	2.04E+00	3.23E+01		
B2 21-22.5	87-68-3	SW8260B	9/1/2009	-21	-22.5	2.44E-03	U	2.44E-03	5.00E-03	2.04E+00	3.23E+01		
B3 12-13	87-68-3	SW8270C	8/31/2009	-12	-13	1.16E-01	U	1.16E-01	3.30E-01	2.04E+00	3.23E+01		
B3 12-13	87-68-3	SW8260B	8/31/2009	-12	-13	1.97E-03	U	1.97E-03	5.00E-03	2.04E+00	3.23E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Hexachlorobutadiene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B3 2-3	87-68-3	SW8270C	8/31/2009	-2	-3	1.36E-01	U	1.36E-01	3.30E-01	2.04E+00	3.23E+01		
B3 2-3	87-68-3	SW8260B	8/31/2009	-2	-3	2.30E-03	U	2.30E-03	5.00E-03	2.04E+00	3.23E+01		
B4 14.5-15	87-68-3	SW8260B	9/1/2009	-14.5	-15	2.23E-03	U	2.23E-03	5.00E-03	2.04E+00	3.23E+01		
B4 14-14.5	87-68-3	SW8270C	9/1/2009	-14	-14.5	1.30E-01	U	1.30E-01	3.30E-01	2.04E+00	3.23E+01		
B4 2-2.5	87-68-3	SW8270C	9/1/2009	-2	-2.5	1.41E-01	U	1.41E-01	3.30E-01	2.04E+00	3.23E+01		
B4 2-2.5	87-68-3	SW8260B	9/1/2009	-2	-2.5	2.38E-03	U	2.38E-03	5.00E-03	2.04E+00	3.23E+01		
B5-1	87-68-3	SW8270C	9/2/2009	-1	-1.5	1.38E-01	U	1.38E-01	3.30E-01	2.04E+00	3.23E+01		
B5-1	87-68-3	SW8260B	9/2/2009	-1	-1.5	2.34E-03	U	2.34E-03	5.00E-03	2.04E+00	3.23E+01		
B5-2	87-68-3	SW8270C	9/2/2009	-14.5	-15	1.32E-01	U	1.32E-01	3.30E-01	2.04E+00	3.23E+01		
B5-2	87-68-3	SW8260B	9/2/2009	-14.5	-15	2.23E-03	U	2.23E-03	5.00E-03	2.04E+00	3.23E+01		
B6-1	87-68-3	SW8270C	9/2/2009	-0.5	-1	1.28E-01	U	1.28E-01	3.30E-01	2.04E+00	3.23E+01		
B6-1	87-68-3	SW8260B	9/2/2009	-0.5	-1	2.17E-03	U	2.17E-03	5.00E-03	2.04E+00	3.23E+01		
B6-2	87-68-3	SW8260B	9/2/2009	-14.5	-15	2.23E-03	U	2.23E-03	5.00E-03	2.04E+00	3.23E+01		
B6-2	87-68-3	SW8270C	9/2/2009	-14.5	-15	1.32E-01	U	1.32E-01	3.30E-01	2.04E+00	3.23E+01		
B7 0-1'	87-68-3	SW8270C	11/11/2009	0	-1	1.23E-01	U	1.23E-01	3.30E-01	2.04E+00	3.23E+01		
B7 0-1'	87-68-3	SW8260B	11/11/2009	0	-1	2.58E-03	U	2.58E-03	5.00E-03	2.04E+00	3.23E+01		
B7 14-15'	87-68-3	SW8270C	11/11/2009	-14	-15	1.27E-01	U	1.27E-01	3.30E-01	2.04E+00	3.23E+01		
B7 14-15'	87-68-3	SW8260B	11/11/2009	-14	-15	2.81E-03	U	2.81E-03	5.00E-03	2.04E+00	3.23E+01		
B8-1	87-68-3	SW8260B	9/2/2009	-1	-1.5	2.21E-03	U	2.21E-03	5.00E-03	2.04E+00	3.23E+01		
B8-1	87-68-3	SW8270C	9/2/2009	-1	-1.5	1.30E-01	U	1.30E-01	3.30E-01	2.04E+00	3.23E+01		
B8-2	87-68-3	SW8270C	9/2/2009	-14	-15	1.27E-01	U	1.27E-01	3.30E-01	2.04E+00	3.23E+01		
B8-2	87-68-3	SW8260B	9/2/2009	-14	-15	2.15E-03	U	2.15E-03	5.00E-03	2.04E+00	3.23E+01		
B8-3	87-68-3	SW8260B	9/2/2009	-8	-8.5	2.33E-03	U	2.33E-03	5.00E-03	2.04E+00	3.23E+01		
B9 0-1'	87-68-3	SW8270C	11/11/2009	0	-1	1.30E-01	U	1.30E-01	3.30E-01	2.04E+00	3.23E+01		
B9 0-1'	87-68-3	SW8260B	11/11/2009	0	-1	3.02E-03	U	3.02E-03	5.00E-03	2.04E+00	3.23E+01		
B9 14-15'	87-68-3	SW8270C	11/11/2009	-14	-15	1.26E-01	U	1.26E-01	3.30E-01	2.04E+00	3.23E+01		
B9 14-15'	87-68-3	SW8260B	11/11/2009	-14	-15	2.78E-03	U	2.78E-03	5.00E-03	2.04E+00	3.23E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Hexachlorocyclopentadiene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	77-47-4	SW8270C	8/31/2009	0	-1	1.43E-01	U	1.43E-01	3.30E-01	5.00E+00	1.44E+01		
B1 0-1'	77-47-4	SW8270C	11/11/2009	0	-1	1.48E-01	U	1.48E-01	3.30E-01	5.00E+00	1.44E+01		
B1 14-15'	77-47-4	SW8270C	11/11/2009	-14	-15	1.33E-01	U	1.33E-01	3.30E-01	5.00E+00	1.44E+01		
B10-1	77-47-4	SW8270C	9/2/2009	-2	-3	1.71E-01	U	1.71E-01	3.30E-01	5.00E+00	1.44E+01		
B10-2	77-47-4	SW8270C	9/2/2009	-13	-14	1.45E-01	U	1.45E-01	3.30E-01	5.00E+00	1.44E+01		
B2 1-1.5	77-47-4	SW8270C	9/1/2009	-1	-1.5	1.35E-01	U	1.35E-01	3.30E-01	5.00E+00	1.44E+01		
B2 21-22.5	77-47-4	SW8270C	9/1/2009	-21	-22.5	1.60E-01	U	1.60E-01	3.30E-01	5.00E+00	1.44E+01		
B3 12-13	77-47-4	SW8270C	8/31/2009	-12	-13	1.29E-01	U	1.29E-01	3.30E-01	5.00E+00	1.44E+01		
B3 2-3	77-47-4	SW8270C	8/31/2009	-2	-3	1.50E-01	U	1.50E-01	3.30E-01	5.00E+00	1.44E+01		
B4 14-14.5	77-47-4	SW8270C	9/1/2009	-14	-14.5	1.44E-01	U	1.44E-01	3.30E-01	5.00E+00	1.44E+01		
B4 2-2.5	77-47-4	SW8270C	9/1/2009	-2	-2.5	1.56E-01	U	1.56E-01	3.30E-01	5.00E+00	1.44E+01		
B5-1	77-47-4	SW8270C	9/2/2009	-1	-1.5	1.53E-01	U	1.53E-01	3.30E-01	5.00E+00	1.44E+01		
B5-2	77-47-4	SW8270C	9/2/2009	-14.5	-15	1.46E-01	U	1.46E-01	3.30E-01	5.00E+00	1.44E+01		
B6-1	77-47-4	SW8270C	9/2/2009	-0.5	-1	1.42E-01	U	1.42E-01	3.30E-01	5.00E+00	1.44E+01		
B6-2	77-47-4	SW8270C	9/2/2009	-14.5	-15	1.46E-01	U	1.46E-01	3.30E-01	5.00E+00	1.44E+01		
B7 0-1'	77-47-4	SW8270C	11/11/2009	0	-1	1.37E-01	U	1.37E-01	3.30E-01	5.00E+00	1.44E+01		
B7 14-15'	77-47-4	SW8270C	11/11/2009	-14	-15	1.41E-01	U	1.41E-01	3.30E-01	5.00E+00	1.44E+01		
B8-1	77-47-4	SW8270C	9/2/2009	-1	-1.5	1.44E-01	U	1.45E-01	3.30E-01	5.00E+00	1.44E+01		
B8-2	77-47-4	SW8270C	9/2/2009	-14	-15	1.41E-01	U	1.41E-01	3.30E-01	5.00E+00	1.44E+01		
B9 0-1'	77-47-4	SW8270C	11/11/2009	0	-1	1.44E-01	U	1.44E-01	3.30E-01	5.00E+00	1.44E+01		
B9 14-15'	77-47-4	SW8270C	11/11/2009	-14	-15	1.40E-01	U	1.40E-01	3.30E-01	5.00E+00	1.44E+01		

Hexachloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	67-72-1	SW8270C	8/31/2009	0	-1	1.03E-01	U	1.03E-01	3.30E-01	1.02E+01	7.46E+02		
B1 0-1'	67-72-1	SW8270C	11/11/2009	0	-1	1.07E-01	U	1.07E-01	3.30E-01	1.02E+01	7.46E+02		
B1 14-15'	67-72-1	SW8270C	11/11/2009	-14	-15	9.61E-02	U	9.61E-02	3.30E-01	1.02E+01	7.46E+02		
B10-1	67-72-1	SW8270C	9/2/2009	-2	-3	1.23E-01	U	1.23E-01	3.30E-01	1.02E+01	7.46E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Hexachloroethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-2	67-72-1	SW8270C	9/2/2009	-13	-14	1.05E-01	U	1.05E-01	3.30E-01	1.02E+01	7.46E+02		
B2 1-1.5	67-72-1	SW8270C	9/1/2009	-1	-1.5	9.76E-02	U	9.76E-02	3.30E-01	1.02E+01	7.46E+02		
B2 21-22.5	67-72-1	SW8270C	9/1/2009	-21	-22.5	1.16E-01	U	1.15E-01	3.30E-01	1.02E+01	7.46E+02		
B3 12-13	67-72-1	SW8270C	8/31/2009	-12	-13	9.29E-02	U	9.29E-02	3.30E-01	1.02E+01	7.46E+02		
B3 2-3	67-72-1	SW8270C	8/31/2009	-2	-3	1.09E-01	U	1.09E-01	3.30E-01	1.02E+01	7.46E+02		
B4 14-14.5	67-72-1	SW8270C	9/1/2009	-14	-14.5	1.04E-01	U	1.04E-01	3.30E-01	1.02E+01	7.46E+02		
B4 2-2.5	67-72-1	SW8270C	9/1/2009	-2	-2.5	1.13E-01	U	1.13E-01	3.30E-01	1.02E+01	7.46E+02		
B5-1	67-72-1	SW8270C	9/2/2009	-1	-1.5	1.11E-01	U	1.11E-01	3.30E-01	1.02E+01	7.46E+02		
B5-2	67-72-1	SW8270C	9/2/2009	-14.5	-15	1.06E-01	U	1.05E-01	3.30E-01	1.02E+01	7.46E+02		
B6-1	67-72-1	SW8270C	9/2/2009	-0.5	-1	1.02E-01	U	1.02E-01	3.30E-01	1.02E+01	7.46E+02		
B6-2	67-72-1	SW8270C	9/2/2009	-14.5	-15	1.06E-01	U	1.05E-01	3.30E-01	1.02E+01	7.46E+02		
B7 0-1'	67-72-1	SW8270C	11/11/2009	0	-1	9.86E-02	U	9.86E-02	3.30E-01	1.02E+01	7.46E+02		
B7 14-15'	67-72-1	SW8270C	11/11/2009	-14	-15	1.02E-01	U	1.02E-01	3.30E-01	1.02E+01	7.46E+02		
B8-1	67-72-1	SW8270C	9/2/2009	-1	-1.5	1.04E-01	U	1.04E-01	3.30E-01	1.02E+01	7.46E+02		
B8-2	67-72-1	SW8270C	9/2/2009	-14	-15	1.02E-01	U	1.01E-01	3.30E-01	1.02E+01	7.46E+02		
B9 0-1'	67-72-1	SW8270C	11/11/2009	0	-1	1.04E-01	U	1.04E-01	3.30E-01	1.02E+01	7.46E+02		
B9 14-15'	67-72-1	SW8270C	11/11/2009	-14	-15	1.01E-01	U	1.01E-01	3.30E-01	1.02E+01	7.46E+02		

HMX

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 1-2 FT	2691-41-0	SW-846 8	8/31/2009	-1	-2	9.35E-01	U	9.35E-01	1.00E-01	5.11E+02	1.33E+04		
B1 13-14	2691-41-0	SW-846 8	8/31/2009	-13	-14	9.35E-01	U	9.35E-01	1.00E-01	5.11E+02	1.33E+04		
B10 1 - 2	2691-41-0	SW-846 8	9/2/2009	-1	-2	1.11E+00	U	1.11E+00	1.00E-01	5.11E+02	1.33E+04		
B10 11.5 - 1	2691-41-0	SW-846 8	9/2/2009	-11.5	-12	1.15E+00	U	1.15E+00	1.00E-01	5.11E+02	1.33E+04		
B2 0.5-1.0	2691-41-0	SW-846 8	9/1/2009	-0.5	-1	9.35E-01	U	9.35E-01	1.00E-01	5.11E+02	1.33E+04		
B2 21-21.5	2691-41-0	SW-846 8	9/1/2009	-21	-21.5	9.35E-01	U	9.35E-01	1.00E-01	5.11E+02	1.33E+04		
B3 0-1	2691-41-0	SW-846 8	8/31/2009	0	-1	9.35E-01	U	9.35E-01	1.00E-01	5.11E+02	1.33E+04		
B3 14-15	2691-41-0	SW-846 8	8/31/2009	-14	-15	9.35E-01	U	9.35E-01	1.00E-01	5.11E+02	1.33E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

HMX

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 13-14	2691-41-0	SW-846 8	9/1/2009	-13	-14	9.35E-01	U	9.35E-01	1.00E-01	5.11E+02	1.33E+04		
B4 3-3.5	2691-41-0	SW-846 8	9/1/2009	-3	-3.5	9.35E-01	U	9.35E-01	1.00E-01	5.11E+02	1.33E+04		
B5 14 - 14.	2691-41-0	SW-846 8	9/2/2009	-14	-14.5	1.10E+00	U	1.10E+00	1.00E-01	5.11E+02	1.33E+04		
B5 0.5 - 1 M	2691-41-0	SW-846 8	9/2/2009	-0.5	-1	1.14E+00	U	1.14E+00	1.00E-01	5.11E+02	1.33E+04		
B6 1 - 1.5	2691-41-0	SW-846 8	9/2/2009	-1	-1.5	1.10E+00	U	1.10E+00	1.00E-01	5.11E+02	1.33E+04		
B6 14 - 14.5	2691-41-0	SW-846 8	9/2/2009	-14	-14.5	1.08E+00	U	1.08E+00	1.00E-01	5.11E+02	1.33E+04		
B7 0-1 FT	2691-41-0	SW-846 8	8/31/2009	0	-1	9.35E-01	U	9.35E-01	1.00E-01	5.11E+02	1.33E+04		
B7 14-15	2691-41-0	SW-846 8	8/31/2009	-14	-15	9.35E-01	U	9.35E-01	1.00E-01	5.11E+02	1.33E+04		
B8 13 - 14	2691-41-0	SW-846 8	9/2/2009	-13	-14	1.06E+00	U	1.06E+00	1.00E-01	5.11E+02	1.33E+04		
B8 2.75 - 3	2691-41-0	SW-846 8	9/2/2009	-2.75	-3	1.17E+00	U	1.17E+00	1.00E-01	5.11E+02	1.33E+04		
B9 14-15	2691-41-0	SW-846 8	8/31/2009	-14	-15	9.35E-01	U	9.35E-01	1.00E-01	5.11E+02	1.33E+04		
B9-0-2 FT	2691-41-0	SW-846 8	8/31/2009	0	-2	9.35E-01	U	9.35E-01	1.00E-01	5.11E+02	1.33E+04		

Indeno(1,2,3-cd)pyrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	193-39-5	SW8270C	8/31/2009	0	-1	1.84E-02	U	1.84E-02	3.33E-02	1.73E+04	3.41E+00		
B1 0-1	193-39-5	SW8270C	8/31/2009	0	-1	1.12E-01	U	1.12E-01	3.30E-01	1.73E+04	3.41E+00		
B1 0-1'	193-39-5	SW8270C	11/11/2009	0	-1	1.16E-01	U	1.16E-01	3.30E-01	1.73E+04	3.41E+00		
B1 0-1'	193-39-5	SW8270C	11/11/2009	0	-1	2.40E-02	U	2.40E-02	3.00E-02	1.73E+04	3.41E+00		
B1 14-15'	193-39-5	SW8270C	11/11/2009	-14	-15	2.16E-02	U	2.16E-02	3.00E-02	1.73E+04	3.41E+00		
B1 14-15'	193-39-5	SW8270C	11/11/2009	-14	-15	1.04E-01	U	1.04E-01	3.30E-01	1.73E+04	3.41E+00		
B10-1	193-39-5	SW8270C	9/2/2009	-2	-3	2.19E-02	U	2.19E-02	3.33E-02	1.73E+04	3.41E+00		
B10-1	193-39-5	SW8270C	9/2/2009	-2	-3	1.34E-01	U	1.34E-01	3.30E-01	1.73E+04	3.41E+00		
B10-2	193-39-5	SW8270C	9/2/2009	-13	-14	1.14E-01	U	1.14E-01	3.30E-01	1.73E+04	3.41E+00		
B10-2	193-39-5	SW8270C	9/2/2009	-13	-14	1.87E-02	U	1.87E-02	3.33E-02	1.73E+04	3.41E+00		
B2 1-1.5	193-39-5	SW8270C	9/1/2009	-1	-1.5	1.74E-02	U	1.74E-02	3.33E-02	1.73E+04	3.41E+00		
B2 1-1.5	193-39-5	SW8270C	9/1/2009	-1	-1.5	1.06E-01	U	1.06E-01	3.30E-01	1.73E+04	3.41E+00		
B2 21-22.5	193-39-5	SW8270C	9/1/2009	-21	-22.5	1.25E-01	U	1.25E-01	3.30E-01	1.73E+04	3.41E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Indeno(1,2,3-cd)pyrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 21-22.5	193-39-5	SW8270C	9/1/2009	-21	-22.5	2.05E-02	U	2.05E-02	3.33E-02	1.73E+04	3.41E+00		
B3 12-13	193-39-5	SW8270C	8/31/2009	-12	-13	1.01E-01	U	1.01E-01	3.30E-01	1.73E+04	3.41E+00		
B3 12-13	193-39-5	SW8270C	8/31/2009	-12	-13	1.65E-02	U	1.65E-02	3.33E-02	1.73E+04	3.41E+00		
B3 2-3	193-39-5	SW8270C	8/31/2009	-2	-3	1.93E-02	U	1.93E-02	3.33E-02	1.73E+04	3.41E+00		
B3 2-3	193-39-5	SW8270C	8/31/2009	-2	-3	1.18E-01	U	1.18E-01	3.30E-01	1.73E+04	3.41E+00		
B4 14-14.5	193-39-5	SW8270C	9/1/2009	-14	-14.5	1.13E-01	U	1.13E-01	3.30E-01	1.73E+04	3.41E+00		
B4 14-14.5	193-39-5	SW8270C	9/1/2009	-14	-14.5	1.85E-02	U	1.85E-02	3.33E-02	1.73E+04	3.41E+00		
B4 2-2.5	193-39-5	SW8270C	9/1/2009	-2	-2.5	1.22E-01	U	1.22E-01	3.30E-01	1.73E+04	3.41E+00		
B4 2-2.5	193-39-5	SW8270C	9/1/2009	-2	-2.5	2.00E-02	U	2.00E-02	3.33E-02	1.73E+04	3.41E+00		
B5-1	193-39-5	SW8270C	9/2/2009	-1	-1.5	1.97E-02	U	1.97E-02	3.33E-02	1.73E+04	3.41E+00		
B5-1	193-39-5	SW8270C	9/2/2009	-1	-1.5	1.20E-01	U	1.20E-01	3.30E-01	1.73E+04	3.41E+00		
B5-2	193-39-5	SW8270C	9/2/2009	-14.5	-15	1.88E-02	U	1.88E-02	3.33E-02	1.73E+04	3.41E+00		
B5-2	193-39-5	SW8270C	9/2/2009	-14.5	-15	1.14E-01	U	1.14E-01	3.30E-01	1.73E+04	3.41E+00		
B6-1	193-39-5	SW8270C	9/2/2009	-0.5	-1	1.82E-02	U	1.82E-02	3.33E-02	1.73E+04	3.41E+00		
B6-1	193-39-5	SW8270C	9/2/2009	-0.5	-1	1.11E-01	U	1.11E-01	3.30E-01	1.73E+04	3.41E+00		
B6-2	193-39-5	SW8270C	9/2/2009	-14.5	-15	1.14E-01	U	1.14E-01	3.30E-01	1.73E+04	3.41E+00		
B6-2	193-39-5	SW8270C	9/2/2009	-14.5	-15	1.88E-02	U	1.88E-02	3.33E-02	1.73E+04	3.41E+00		
B7 0-1'	193-39-5	SW8270C	11/11/2009	0	-1	2.22E-02	U	2.22E-02	3.00E-02	1.73E+04	3.41E+00		
B7 0-1'	193-39-5	SW8270C	11/11/2009	0	-1	1.07E-01	U	1.07E-01	3.30E-01	1.73E+04	3.41E+00		
B7 14-15'	193-39-5	SW8270C	11/11/2009	-14	-15	1.10E-01	U	1.10E-01	3.30E-01	1.73E+04	3.41E+00		
B7 14-15'	193-39-5	SW8270C	11/11/2009	-14	-15	2.29E-02	U	2.29E-02	3.00E-02	1.73E+04	3.41E+00		
B8-1	193-39-5	SW8270C	9/2/2009	-1	-1.5	1.86E-02	U	1.86E-02	3.33E-02	1.73E+04	3.41E+00		
B8-1	193-39-5	SW8270C	9/2/2009	-1	-1.5	1.13E-01	U	1.13E-01	3.30E-01	1.73E+04	3.41E+00		
B8-2	193-39-5	SW8270C	9/2/2009	-14	-15	1.81E-02	U	1.81E-02	3.33E-02	1.73E+04	3.41E+00		
B8-2	193-39-5	SW8270C	9/2/2009	-14	-15	1.10E-01	U	1.10E-01	3.30E-01	1.73E+04	3.41E+00		
B9 0-1'	193-39-5	SW8270C	11/11/2009	0	-1	1.13E-01	U	1.13E-01	3.30E-01	1.73E+04	3.41E+00		
B9 0-1'	193-39-5	SW8270C	11/11/2009	0	-1	2.34E-02	U	2.34E-02	3.00E-02	1.73E+04	3.41E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Indeno(1,2,3-cd)pyrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B9 14-15'	193-39-5	SW8270C	11/11/2009	-14	-15	1.10E-01	U	1.10E-01	3.30E-01	1.73E+04	3.41E+00		
B9 14-15'	193-39-5	SW8270C	11/11/2009	-14	-15	2.28E-02	U	2.28E-02	3.00E-02	1.73E+04	3.41E+00		

Iodomethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	74-88-4	SW8260B	8/31/2009	0	-1	1.20E-03	U	1.20E-03	5.00E-03	1.43E+01	2.58E+01		
B1 0-1'	74-88-4	SW8260B	11/11/2009	0	-1	1.79E-03	U	1.79E-03	5.00E-03	1.43E+01	2.58E+01		
B1 14-15'	74-88-4	SW8260B	11/11/2009	-14	-15	1.30E-03	U	1.30E-03	5.00E-03	1.43E+01	2.58E+01		
B10-1	74-88-4	SW8260B	9/2/2009	-2	-3	1.43E-03	U	1.43E-03	5.00E-03	1.43E+01	2.58E+01		
B10-2	74-88-4	SW8260B	9/2/2009	-13	-14	1.22E-03	U	1.22E-03	5.00E-03	1.43E+01	2.58E+01		
B2 1-1.5	74-88-4	SW8260B	9/1/2009	-1	-1.5	1.13E-03	U	1.13E-03	5.00E-03	1.43E+01	2.58E+01		
B2 21-22.5	74-88-4	SW8260B	9/1/2009	-21	-22.5	1.34E-03	U	1.34E-03	5.00E-03	1.43E+01	2.58E+01		
B3 12-13	74-88-4	SW8260B	8/31/2009	-12	-13	1.08E-03	U	1.08E-03	5.00E-03	1.43E+01	2.58E+01		
B3 2-3	74-88-4	SW8260B	8/31/2009	-2	-3	1.26E-03	U	1.26E-03	5.00E-03	1.43E+01	2.58E+01		
B4 14.5-15	74-88-4	SW8260B	9/1/2009	-14.5	-15	1.22E-03	U	1.22E-03	5.00E-03	1.43E+01	2.58E+01		
B4 2-2.5	74-88-4	SW8260B	9/1/2009	-2	-2.5	1.31E-03	U	1.31E-03	5.00E-03	1.43E+01	2.58E+01		
B5-1	74-88-4	SW8260B	9/2/2009	-1	-1.5	1.28E-03	U	1.28E-03	5.00E-03	1.43E+01	2.58E+01		
B5-2	74-88-4	SW8260B	9/2/2009	-14.5	-15	1.22E-03	U	1.22E-03	5.00E-03	1.43E+01	2.58E+01		
B6-1	74-88-4	SW8260B	9/2/2009	-0.5	-1	1.19E-03	U	1.19E-03	5.00E-03	1.43E+01	2.58E+01		
B6-2	74-88-4	SW8260B	9/2/2009	-14.5	-15	1.22E-03	U	1.22E-03	5.00E-03	1.43E+01	2.58E+01		
B7 0-1'	74-88-4	SW8260B	11/11/2009	0	-1	1.41E-03	U	1.41E-03	5.00E-03	1.43E+01	2.58E+01		
B7 14-15'	74-88-4	SW8260B	11/11/2009	-14	-15	1.54E-03	U	1.54E-03	5.00E-03	1.43E+01	2.58E+01		
B8-1	74-88-4	SW8260B	9/2/2009	-1	-1.5	1.21E-03	U	1.21E-03	5.00E-03	1.43E+01	2.58E+01		
B8-2	74-88-4	SW8260B	9/2/2009	-14	-15	1.18E-03	U	1.18E-03	5.00E-03	1.43E+01	2.58E+01		
B8-3	74-88-4	SW8260B	9/2/2009	-8	-8.5	1.28E-03	U	1.28E-03	5.00E-03	1.43E+01	2.58E+01		
B9 0-1'	74-88-4	SW8260B	11/11/2009	0	-1	1.66E-03	U	1.66E-03	5.00E-03	1.43E+01	2.58E+01		
B9 14-15'	74-88-4	SW8260B	11/11/2009	-14	-15	1.51E-03	U	1.51E-03	5.00E-03	1.43E+01	2.58E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Iron

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7439-89-6	SW6010B	8/31/2009	0	-1	2.09E+04		1.14E+00	5.00E+00			9.14E+03	2.38E+04
B1 0-1'	7439-89-6	SW6010B	11/11/2009	0	-1	2.62E+04		1.19E+00	2.00E+00			9.14E+03	2.38E+04
B1 14-15'	7439-89-6	SW6010B	11/11/2009	-14	-15	8.82E+03		1.07E+00	2.00E+00				
B10-1	7439-89-6	SW6010B	9/2/2009	-2	-3	2.40E+04		1.36E+00	5.00E+00			1.72E+04	4.10E+04
B10-2	7439-89-6	SW6010B	9/2/2009	-13	-14	7.57E+03		1.16E+00	5.00E+00				
B2 1-1.5	7439-89-6	SW6010B	9/1/2009	-1	-1.5	2.79E+04		1.08E+00	5.00E+00			1.72E+04	4.10E+04
B2 21-22.5	7439-89-6	SW6010B	9/1/2009	-21	-22.5	1.91E+04		1.28E+00	5.00E+00				
B3 12-13	7439-89-6	SW6010B	8/31/2009	-12	-13	1.09E+04		1.03E+00	5.00E+00				
B3 2-3	7439-89-6	SW6010B	8/31/2009	-2	-3	2.89E+04		1.20E+00	5.00E+00			1.72E+04	4.10E+04
B4 14-14.5	7439-89-6	SW6010B	9/1/2009	-14	-14.5	2.99E+04		1.15E+00	5.00E+00				
B4 2-2.5	7439-89-6	SW6010B	9/1/2009	-2	-2.5	2.93E+04		1.24E+00	5.00E+00			1.72E+04	4.10E+04
B5-1	7439-89-6	SW6010B	9/2/2009	-1	-1.5	2.60E+04		1.22E+00	5.00E+00			1.72E+04	4.10E+04
B5-2	7439-89-6	SW6010B	9/2/2009	-14.5	-15	3.08E+04		1.17E+00	5.00E+00				
B6-1	7439-89-6	SW6010B	9/2/2009	-0.5	-1	1.59E+04		1.13E+00	5.00E+00			9.14E+03	2.38E+04
B6-2	7439-89-6	SW6010B	9/2/2009	-14.5	-15	3.77E+04		1.17E+00	5.00E+00				
B7 0-1'	7439-89-6	SW6010B	11/11/2009	0	-1	1.17E+04		1.09E+00	2.00E+00			9.14E+03	2.38E+04
B7 14-15'	7439-89-6	SW6010B	11/11/2009	-14	-15	9.27E+03		1.13E+00	2.00E+00				
B8-1	7439-89-6	SW6010B	9/2/2009	-1	-1.5	2.46E+04		1.15E+00	5.00E+00			1.72E+04	4.10E+04
B8-2	7439-89-6	SW6010B	9/2/2009	-14	-15	1.84E+04		1.12E+00	5.00E+00				
B9 0-1'	7439-89-6	SW6010B	11/11/2009	0	-1	1.42E+04		1.16E+00	2.00E+00			9.14E+03	2.38E+04
B9 14-15'	7439-89-6	SW6010B	11/11/2009	-14	-15	1.16E+04		1.12E+00	2.00E+00				

Isophorone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	78-59-1	SW8270C	8/31/2009	0	-1	1.06E-01	U	1.06E-01	3.30E-01	3.01E+02	3.01E+04		
B1 0-1'	78-59-1	SW8270C	11/11/2009	0	-1	1.10E-01	U	1.10E-01	3.30E-01	3.01E+02	3.01E+04		
B1 14-15'	78-59-1	SW8270C	11/11/2009	-14	-15	9.89E-02	U	9.89E-02	3.30E-01	3.01E+02	3.01E+04		
B10-1	78-59-1	SW8270C	9/2/2009	-2	-3	1.27E-01	U	1.27E-01	3.30E-01	3.01E+02	3.01E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Isophorone

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-2	78-59-1	SW8270C	9/2/2009	-13	-14	1.08E-01	U	1.08E-01	3.30E-01	3.01E+02	3.01E+04		
B2 1-1.5	78-59-1	SW8270C	9/1/2009	-1	-1.5	1.00E-01	U	1.00E-01	3.30E-01	3.01E+02	3.01E+04		
B2 21-22.5	78-59-1	SW8270C	9/1/2009	-21	-22.5	1.19E-01	U	1.19E-01	3.30E-01	3.01E+02	3.01E+04		
B3 12-13	78-59-1	SW8270C	8/31/2009	-12	-13	9.56E-02	U	9.56E-02	3.30E-01	3.01E+02	3.01E+04		
B3 2-3	78-59-1	SW8270C	8/31/2009	-2	-3	1.12E-01	U	1.12E-01	3.30E-01	3.01E+02	3.01E+04		
B4 14-14.5	78-59-1	SW8270C	9/1/2009	-14	-14.5	1.07E-01	U	1.07E-01	3.30E-01	3.01E+02	3.01E+04		
B4 2-2.5	78-59-1	SW8270C	9/1/2009	-2	-2.5	1.16E-01	U	1.16E-01	3.30E-01	3.01E+02	3.01E+04		
B5-1	78-59-1	SW8270C	9/2/2009	-1	-1.5	1.14E-01	U	1.14E-01	3.30E-01	3.01E+02	3.01E+04		
B5-2	78-59-1	SW8270C	9/2/2009	-14.5	-15	1.09E-01	U	1.09E-01	3.30E-01	3.01E+02	3.01E+04		
B6-1	78-59-1	SW8270C	9/2/2009	-0.5	-1	1.05E-01	U	1.05E-01	3.30E-01	3.01E+02	3.01E+04		
B6-2	78-59-1	SW8270C	9/2/2009	-14.5	-15	1.09E-01	U	1.09E-01	3.30E-01	3.01E+02	3.01E+04		
B7 0-1'	78-59-1	SW8270C	11/11/2009	0	-1	1.02E-01	U	1.01E-01	3.30E-01	3.01E+02	3.01E+04		
B7 14-15'	78-59-1	SW8270C	11/11/2009	-14	-15	1.05E-01	U	1.05E-01	3.30E-01	3.01E+02	3.01E+04		
B8-1	78-59-1	SW8270C	9/2/2009	-1	-1.5	1.07E-01	U	1.07E-01	3.30E-01	3.01E+02	3.01E+04		
B8-2	78-59-1	SW8270C	9/2/2009	-14	-15	1.05E-01	U	1.04E-01	3.30E-01	3.01E+02	3.01E+04		
B9 0-1'	78-59-1	SW8270C	11/11/2009	0	-1	1.07E-01	U	1.07E-01	3.30E-01	3.01E+02	3.01E+04		
B9 14-15'	78-59-1	SW8270C	11/11/2009	-14	-15	1.04E-01	U	1.04E-01	3.30E-01	3.01E+02	3.01E+04		

Isopropylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	98-82-8	SW8260B	8/31/2009	0	-1	1.22E-03	U	1.22E-03	5.00E-03	1.02E+03	8.96E+03		
B1 0-1'	98-82-8	SW8260B	11/11/2009	0	-1	1.81E-03	U	1.81E-03	5.00E-03	1.02E+03	8.96E+03		
B1 14-15'	98-82-8	SW8260B	11/11/2009	-14	-15	1.33E-03	U	1.33E-03	5.00E-03	1.02E+03	8.96E+03		
B10-1	98-82-8	SW8260B	9/2/2009	-2	-3	1.46E-03	U	1.46E-03	5.00E-03	1.02E+03	8.96E+03		
B10-2	98-82-8	SW8260B	9/2/2009	-13	-14	1.24E-03	U	1.24E-03	5.00E-03	1.02E+03	8.96E+03		
B2 1-1.5	98-82-8	SW8260B	9/1/2009	-1	-1.5	1.15E-03	U	1.15E-03	5.00E-03	1.02E+03	8.96E+03		
B2 21-22.5	98-82-8	SW8260B	9/1/2009	-21	-22.5	1.37E-03	U	1.37E-03	5.00E-03	1.02E+03	8.96E+03		
B3 12-13	98-82-8	SW8260B	8/31/2009	-12	-13	1.10E-03	U	1.10E-03	5.00E-03	1.02E+03	8.96E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Isopropylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B3 2-3	98-82-8	SW8260B	8/31/2009	-2	-3	1.28E-03	U	1.28E-03	5.00E-03	1.02E+03	8.96E+03		
B4 14.5-15	98-82-8	SW8260B	9/1/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	1.02E+03	8.96E+03		
B4 2-2.5	98-82-8	SW8260B	9/1/2009	-2	-2.5	1.33E-03	U	1.33E-03	5.00E-03	1.02E+03	8.96E+03		
B5-1	98-82-8	SW8260B	9/2/2009	-1	-1.5	1.31E-03	U	1.31E-03	5.00E-03	1.02E+03	8.96E+03		
B5-2	98-82-8	SW8260B	9/2/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	1.02E+03	8.96E+03		
B6-1	98-82-8	SW8260B	9/2/2009	-0.5	-1	1.21E-03	U	1.21E-03	5.00E-03	1.02E+03	8.96E+03		
B6-2	98-82-8	SW8260B	9/2/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	1.02E+03	8.96E+03		
B7 0-1'	98-82-8	SW8260B	11/11/2009	0	-1	1.44E-03	U	1.44E-03	5.00E-03	1.02E+03	8.96E+03		
B7 14-15'	98-82-8	SW8260B	11/11/2009	-14	-15	1.57E-03	U	1.57E-03	5.00E-03	1.02E+03	8.96E+03		
B8-1	98-82-8	SW8260B	9/2/2009	-1	-1.5	1.23E-03	U	1.23E-03	5.00E-03	1.02E+03	8.96E+03		
B8-2	98-82-8	SW8260B	9/2/2009	-14	-15	1.20E-03	U	1.20E-03	5.00E-03	1.02E+03	8.96E+03		
B8-3	98-82-8	SW8260B	9/2/2009	-8	-8.5	1.30E-03	U	1.30E-03	5.00E-03	1.02E+03	8.96E+03		
B9 0-1'	98-82-8	SW8260B	11/11/2009	0	-1	1.69E-03	U	1.69E-03	5.00E-03	1.02E+03	8.96E+03		
B9 14-15'	98-82-8	SW8260B	11/11/2009	-14	-15	1.56E-03	U	1.56E-03	5.00E-03	1.02E+03	8.96E+03		

Lead

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7439-92-1	SW6010B	8/31/2009	0	-1	1.36E+01		5.23E-01	1.00E+00	5.49E+02	1.00E+03	1.37E+01	2.76E+01
B1 0-1'	7439-92-1	SW6010B	11/11/2009	0	-1	1.25E+01		5.41E-01	1.50E+00	5.49E+02	1.00E+03	1.37E+01	2.76E+01
B1 14-15'	7439-92-1	SW6010B	11/11/2009	-14	-15	5.59E+00		4.87E-01	1.50E+00	5.49E+02	1.00E+03		
B10-1	7439-92-1	SW6010B	9/2/2009	-2	-3	1.00E+01		6.24E-01	1.00E+00	5.49E+02	1.00E+03	8.32E+00	1.29E+01
B10-2	7439-92-1	SW6010B	9/2/2009	-13	-14	1.03E+01		5.31E-01	1.00E+00	5.49E+02	1.00E+03		
B2 1-1.5	7439-92-1	SW6010B	9/1/2009	-1	-1.5	9.82E+00		4.95E-01	1.00E+00	5.49E+02	1.00E+03	8.32E+00	1.29E+01
B2 21-22.5	7439-92-1	SW6010B	9/1/2009	-21	-22.5	3.17E+01		5.85E-01	1.00E+00	5.49E+02	1.00E+03		
B3 12-13	7439-92-1	SW6010B	8/31/2009	-12	-13	4.70E+00		4.71E-01	1.00E+00	5.49E+02	1.00E+03		
B3 2-3	7439-92-1	SW6010B	8/31/2009	-2	-3	1.37E+01		5.50E-01	1.00E+00	5.49E+02	1.00E+03	8.32E+00	1.29E+01
B4 14-14.5	7439-92-1	SW6010B	9/1/2009	-14	-14.5	8.72E+00		5.28E-01	1.00E+00	5.49E+02	1.00E+03		
B4 2-2.5	7439-92-1	SW6010B	9/1/2009	-2	-2.5	1.60E+01		5.70E-01	1.00E+00	5.49E+02	1.00E+03	8.32E+00	1.29E+01

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Lead

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B5-1	7439-92-1	SW6010B	9/2/2009	-1	-1.5	1.31E+01		5.61E-01	1.00E+00	5.49E+02	1.00E+03	8.32E+00	1.29E+01
B5-2	7439-92-1	SW6010B	9/2/2009	-14.5	-15	4.28E+00		5.34E-01	1.00E+00	5.49E+02	1.00E+03		
B6-1	7439-92-1	SW6010B	9/2/2009	-0.5	-1	1.14E+01		5.18E-01	1.00E+00	5.49E+02	1.00E+03	1.37E+01	2.76E+01
B6-2	7439-92-1	SW6010B	9/2/2009	-14.5	-15	8.84E+00		5.34E-01	1.00E+00	5.49E+02	1.00E+03		
B7 0-1'	7439-92-1	SW6010B	11/11/2009	0	-1	8.27E+00		5.00E-01	1.50E+00	5.49E+02	1.00E+03	1.37E+01	2.76E+01
B7 14-15'	7439-92-1	SW6010B	11/11/2009	-14	-15	1.85E+01		5.15E-01	1.50E+00	5.49E+02	1.00E+03		
B8-1	7439-92-1	SW6010B	9/2/2009	-1	-1.5	1.00E+01		5.29E-01	1.00E+00	5.49E+02	1.00E+03	8.32E+00	1.29E+01
B8-2	7439-92-1	SW6010B	9/2/2009	-14	-15	2.13E+01		5.14E-01	1.00E+00	5.49E+02	1.00E+03		
B9 0-1'	7439-92-1	SW6010B	11/11/2009	0	-1	8.78E+00		5.28E-01	1.50E+00	5.49E+02	1.00E+03	1.37E+01	2.76E+01
B9 14-15'	7439-92-1	SW6010B	11/11/2009	-14	-15	7.36E+00		5.13E-01	1.50E+00	5.49E+02	1.00E+03		

m,p-Xylene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	108-38-3	SW8260B	8/31/2009	0	-1	1.17E-03	U	1.17E-03	1.00E-02	1.00E+03	3.26E+03		
B1 0-1'	179601-2	SW8260B	11/11/2009	0	-1	1.74E-03	U	1.74E-03	1.00E-02				
B1 14-15'	179601-2	SW8260B	11/11/2009	-14	-15	1.28E-03	U	1.28E-03	1.00E-02				
B10-1	108-38-3	SW8260B	9/2/2009	-2	-3	1.40E-03	U	1.40E-03	1.00E-02	1.00E+03	3.26E+03		
B10-2	108-38-3	SW8260B	9/2/2009	-13	-14	1.19E-03	U	1.19E-03	1.00E-02	1.00E+03	3.26E+03		
B2 1-1.5	108-38-3	SW8260B	9/1/2009	-1	-1.5	1.11E-03	U	1.11E-03	1.00E-02	1.00E+03	3.26E+03		
B2 21-22.5	108-38-3	SW8260B	9/1/2009	-21	-22.5	1.31E-03	U	1.31E-03	1.00E-02	1.00E+03	3.26E+03		
B3 12-13	108-38-3	SW8260B	8/31/2009	-12	-13	1.06E-03	U	1.06E-03	1.00E-02	1.00E+03	3.26E+03		
B3 2-3	108-38-3	SW8260B	8/31/2009	-2	-3	1.23E-03	U	1.23E-03	1.00E-02	1.00E+03	3.26E+03		
B4 14.5-15	108-38-3	SW8260B	9/1/2009	-14.5	-15	1.20E-03	U	1.20E-03	1.00E-02	1.00E+03	3.26E+03		
B4 2-2.5	108-38-3	SW8260B	9/1/2009	-2	-2.5	1.28E-03	U	1.28E-03	1.00E-02	1.00E+03	3.26E+03		
B5-1	108-38-3	SW8260B	9/2/2009	-1	-1.5	1.26E-03	U	1.26E-03	1.00E-02	1.00E+03	3.26E+03		
B5-2	108-38-3	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	1.00E-02	1.00E+03	3.26E+03		
B6-1	108-38-3	SW8260B	9/2/2009	-0.5	-1	1.16E-03	U	1.16E-03	1.00E-02	1.00E+03	3.26E+03		
B6-2	108-38-3	SW8260B	9/2/2009	-14.5	-15	1.20E-03	U	1.20E-03	1.00E-02	1.00E+03	3.26E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

m,p-Xylene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 0-1'	179601-2	SW8260B	11/11/2009	0	-1	1.38E-03	U	1.38E-03	1.00E-02				
B7 14-15'	179601-2	SW8260B	11/11/2009	-14	-15	1.52E-03	U	1.52E-03	1.00E-02				
B8-1	108-38-3	SW8260B	9/2/2009	-1	-1.5	1.19E-03	U	1.19E-03	1.00E-02	1.00E+03	3.26E+03		
B8-2	108-38-3	SW8260B	9/2/2009	-14	-15	1.15E-03	U	1.15E-03	1.00E-02	1.00E+03	3.26E+03		
B8-3	108-38-3	SW8260B	9/2/2009	-8	-8.5	1.25E-03	U	1.25E-03	1.00E-02	1.00E+03	3.26E+03		
B9 0-1'	179601-2	SW8260B	11/11/2009	0	-1	1.62E-03	U	1.62E-03	1.00E-02				
B9 14-15'	179601-2	SW8260B	11/11/2009	-14	-15	1.49E-03	U	1.49E-03	1.00E-02				

Magnesium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7439-95-4	SW6010B	8/31/2009	0	-1	8.69E+02		2.16E-01	1.00E+00			2.98E+02	7.18E+02
B1 0-1'	7439-95-4	SW6010B	11/11/2009	0	-1	1.57E+03		1.42E+00	5.00E+00			2.98E+02	7.18E+02
B1 14-15'	7439-95-4	SW6010B	11/11/2009	-14	-15	1.18E+03		1.28E+00	5.00E+00				
B10-1	7439-95-4	SW6010B	9/2/2009	-2	-3	1.70E+03		2.58E-01	1.00E+00			8.04E+02	2.18E+03
B10-2	7439-95-4	SW6010B	9/2/2009	-13	-14	1.29E+03		2.20E-01	1.00E+00				
B2 1-1.5	7439-95-4	SW6010B	9/1/2009	-1	-1.5	1.95E+03		2.04E-01	1.00E+00			8.04E+02	2.18E+03
B2 21-22.5	7439-95-4	SW6010B	9/1/2009	-21	-22.5	3.42E+03		2.42E-01	1.00E+00				
B3 12-13	7439-95-4	SW6010B	8/31/2009	-12	-13	2.18E+03		1.94E-01	1.00E+00				
B3 2-3	7439-95-4	SW6010B	8/31/2009	-2	-3	2.14E+03		2.27E-01	1.00E+00			8.04E+02	2.18E+03
B4 14-14.5	7439-95-4	SW6010B	9/1/2009	-14	-14.5	3.19E+03		2.18E-01	1.00E+00				
B4 2-2.5	7439-95-4	SW6010B	9/1/2009	-2	-2.5	3.99E+03		2.36E-01	1.00E+00			8.04E+02	2.18E+03
B5-1	7439-95-4	SW6010B	9/2/2009	-1	-1.5	4.25E+03		2.32E-01	1.00E+00			8.04E+02	2.18E+03
B5-2	7439-95-4	SW6010B	9/2/2009	-14.5	-15	4.48E+03		2.21E-01	1.00E+00				
B6-1	7439-95-4	SW6010B	9/2/2009	-0.5	-1	1.76E+03		2.14E-01	1.00E+00			2.98E+02	7.18E+02
B6-2	7439-95-4	SW6010B	9/2/2009	-14.5	-15	2.86E+03		2.21E-01	1.00E+00				
B7 0-1'	7439-95-4	SW6010B	11/11/2009	0	-1	1.12E+03		1.31E+00	5.00E+00			2.98E+02	7.18E+02
B7 14-15'	7439-95-4	SW6010B	11/11/2009	-14	-15	4.37E+02		1.35E+00	5.00E+00				
B8-1	7439-95-4	SW6010B	9/2/2009	-1	-1.5	8.68E+02		2.19E-01	1.00E+00			8.04E+02	2.18E+03

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Magnesium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8-2	7439-95-4	SW6010B	9/2/2009	-14	-15	1.16E+03		2.13E-01	1.00E+00				
B9 0-1'	7439-95-4	SW6010B	11/11/2009	0	-1	5.66E+02		1.38E+00	5.00E+00			2.98E+02	7.18E+02
B9 14-15'	7439-95-4	SW6010B	11/11/2009	-14	-15	1.21E+03		1.34E+00	5.00E+00				

Manganese

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7439-96-5	SW6010B	8/31/2009	0	-1	1.79E+02		6.22E+00	1.50E+01	1.43E+03	1.07E+05	5.66E+02	1.82E+03
B1 0-1'	7439-96-5	SW6010B	11/11/2009	0	-1	2.85E+01		1.50E+00	5.00E+00	1.43E+03	1.07E+05	5.66E+02	1.82E+03
B1 14-15'	7439-96-5	SW6010B	11/11/2009	-14	-15	2.92E+01		1.35E+00	5.00E+00	1.43E+03	1.07E+05		
B10-1	7439-96-5	SW6010B	9/2/2009	-2	-3	3.62E+01		7.42E+00	1.50E+01	1.43E+03	1.07E+05	6.84E+01	3.44E+02
B10-2	7439-96-5	SW6010B	9/2/2009	-13	-14	4.64E+02		6.32E+00	1.50E+01	1.43E+03	1.07E+05		
B2 1-1.5	7439-96-5	SW6010B	9/1/2009	-1	-1.5	2.40E+01		5.88E+00	1.50E+01	1.43E+03	1.07E+05	6.84E+01	3.44E+02
B2 21-22.5	7439-96-5	SW6010B	9/1/2009	-21	-22.5	5.34E+02		6.96E+00	1.50E+01	1.43E+03	1.07E+05		
B3 12-13	7439-96-5	SW6010B	8/31/2009	-12	-13	8.01E+01		5.59E+00	1.50E+01	1.43E+03	1.07E+05		
B3 2-3	7439-96-5	SW6010B	8/31/2009	-2	-3	2.49E+01		6.54E+00	1.50E+01	1.43E+03	1.07E+05	6.84E+01	3.44E+02
B4 14-14.5	7439-96-5	SW6010B	9/1/2009	-14	-14.5	2.57E+02		6.28E+00	1.50E+01	1.43E+03	1.07E+05		
B4 2-2.5	7439-96-5	SW6010B	9/1/2009	-2	-2.5	2.66E+01		6.78E+00	1.50E+01	1.43E+03	1.07E+05	6.84E+01	3.44E+02
B5-1	7439-96-5	SW6010B	9/2/2009	-1	-1.5	2.33E+01		6.67E+00	1.50E+01	1.43E+03	1.07E+05	6.84E+01	3.44E+02
B5-2	7439-96-5	SW6010B	9/2/2009	-14.5	-15	1.17E+02		6.35E+00	1.50E+01	1.43E+03	1.07E+05		
B6-1	7439-96-5	SW6010B	9/2/2009	-0.5	-1	3.41E+01		6.16E+00	1.50E+01	1.43E+03	1.07E+05	5.66E+02	1.82E+03
B6-2	7439-96-5	SW6010B	9/2/2009	-14.5	-15	1.63E+02		6.35E+00	1.50E+01	1.43E+03	1.07E+05		
B7 0-1'	7439-96-5	SW6010B	11/11/2009	0	-1	8.27E+01		1.39E+00	5.00E+00	1.43E+03	1.07E+05	5.66E+02	1.82E+03
B7 14-15'	7439-96-5	SW6010B	11/11/2009	-14	-15	5.80E+02		1.43E+00	5.00E+00	1.43E+03	1.07E+05		
B8-1	7439-96-5	SW6010B	9/2/2009	-1	-1.5	3.67E+01		6.29E+00	1.50E+01	1.43E+03	1.07E+05	6.84E+01	3.44E+02
B8-2	7439-96-5	SW6010B	9/2/2009	-14	-15	1.04E+03		6.11E+00	1.50E+01	1.43E+03	1.07E+05		
B9 0-1'	7439-96-5	SW6010B	11/11/2009	0	-1	2.34E+02		1.47E+00	5.00E+00	1.43E+03	1.07E+05	5.66E+02	1.82E+03
B9 14-15'	7439-96-5	SW6010B	11/11/2009	-14	-15	6.46E+01		1.42E+00	5.00E+00	1.43E+03	1.07E+05		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Mercury

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7439-97-6	SW7471A	8/31/2009	0	-1	2.15E-02	U	2.15E-02	4.00E-02	2.00E-01	1.51E-01		
B1 0-1'	7439-97-6	SW7471A	11/11/2009	0	-1	4.64E-02	U	4.64E-02	4.00E-02	2.00E-01	1.51E-01		
B1 14-15'	7439-97-6	SW7471A	11/11/2009	-14	-15	2.74E-02	U	2.74E-02	4.00E-02	2.00E-01	1.51E-01		
B10-1	7439-97-6	SW7471A	9/2/2009	-2	-3	2.57E-02	U	2.57E-02	4.00E-02	2.00E-01	1.51E-01		
B10-2	7439-97-6	SW7471A	9/2/2009	-13	-14	2.18E-02	U	2.18E-02	4.00E-02	2.00E-01	1.51E-01		
B2 1-1.5	7439-97-6	SW7471A	9/1/2009	-1	-1.5	2.03E-02	U	2.03E-02	4.00E-02	2.00E-01	1.51E-01		
B2 21-22.5	7439-97-6	SW7471A	9/1/2009	-21	-22.5	2.41E-02	U	2.41E-02	4.00E-02	2.00E-01	1.51E-01		
B3 12-13	7439-97-6	SW7471A	8/31/2009	-12	-13	1.93E-02	U	1.93E-02	4.00E-02	2.00E-01	1.51E-01		
B3 2-3	7439-97-6	SW7471A	8/31/2009	-2	-3	2.26E-02	U	2.26E-02	4.00E-02	2.00E-01	1.51E-01		
B4 14-14.5	7439-97-6	SW7471A	9/1/2009	-14	-14.5	2.17E-02	U	2.17E-02	4.00E-02	2.00E-01	1.51E-01		
B4 2-2.5	7439-97-6	SW7471A	9/1/2009	-2	-2.5	2.34E-02	U	2.34E-02	4.00E-02	2.00E-01	1.51E-01		
B5-1	7439-97-6	SW7471A	9/2/2009	-1	-1.5	2.31E-02	U	2.31E-02	4.00E-02	2.00E-01	1.51E-01		
B5-2	7439-97-6	SW7471A	9/2/2009	-14.5	-15	2.20E-02	U	2.20E-02	4.00E-02	2.00E-01	1.51E-01		
B6-1	7439-97-6	SW7471A	9/2/2009	-0.5	-1	2.13E-02	U	2.13E-02	4.00E-02	2.00E-01	1.51E-01		
B6-2	7439-97-6	SW7471A	9/2/2009	-14.5	-15	2.20E-02	U	2.20E-02	4.00E-02	2.00E-01	1.51E-01		
B7 0-1'	7439-97-6	SW7471A	11/11/2009	0	-1	3.12E-02	U	3.12E-02	4.00E-02	2.00E-01	1.51E-01		
B7 14-15'	7439-97-6	SW7471A	11/11/2009	-14	-15	3.64E-02	U	3.64E-02	4.00E-02	2.00E-01	1.51E-01		
B8-1	7439-97-6	SW7471A	9/2/2009	-1	-1.5	2.17E-02	U	2.17E-02	4.00E-02	2.00E-01	1.51E-01		
B8-2	7439-97-6	SW7471A	9/2/2009	-14	-15	2.11E-02	U	2.11E-02	4.00E-02	2.00E-01	1.51E-01		
B9 0-1'	7439-97-6	SW7471A	11/11/2009	0	-1	4.09E-02	U	4.09E-02	4.00E-02	2.00E-01	1.51E-01		
B9 14-15'	7439-97-6	SW7471A	11/11/2009	-14	-15	3.54E-02	U	3.54E-02	4.00E-02	2.00E-01	1.51E-01		

Methyl tert-butyl ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	1634-04-4	SW8260B	8/31/2009	0	-1	9.38E-04	U	9.38E-04	5.00E-03	1.02E+02	7.06E+02		
B1 0-1'	1634-04-4	SW8260B	11/11/2009	0	-1	1.41E-03	U	1.41E-03	5.00E-03	1.02E+02	7.06E+02		
B1 14-15'	1634-04-4	SW8260B	11/11/2009	-14	-15	1.02E-03	U	1.02E-03	5.00E-03	1.02E+02	7.06E+02		
B10-1	1634-04-4	SW8260B	9/2/2009	-2	-3	1.12E-03	U	1.12E-03	5.00E-03	1.02E+02	7.06E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Methyl tert-butyl ether

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-2	1634-04-4	SW8260B	9/2/2009	-13	-14	9.53E-04	U	9.53E-04	5.00E-03	1.02E+02	7.06E+02		
B2 1-1.5	1634-04-4	SW8260B	9/1/2009	-1	-1.5	8.87E-04	U	8.87E-04	5.00E-03	1.02E+02	7.06E+02		
B2 21-22.5	1634-04-4	SW8260B	9/1/2009	-21	-22.5	1.05E-03	U	1.05E-03	5.00E-03	1.02E+02	7.06E+02		
B3 12-13	1634-04-4	SW8260B	8/31/2009	-12	-13	8.44E-04	U	8.44E-04	5.00E-03	1.02E+02	7.06E+02		
B3 2-3	1634-04-4	SW8260B	8/31/2009	-2	-3	9.87E-04	U	9.87E-04	5.00E-03	1.02E+02	7.06E+02		
B4 14.5-15	1634-04-4	SW8260B	9/1/2009	-14.5	-15	9.58E-04	U	9.58E-04	5.00E-03	1.02E+02	7.06E+02		
B4 2-2.5	1634-04-4	SW8260B	9/1/2009	-2	-2.5	1.02E-03	U	1.02E-03	5.00E-03	1.02E+02	7.06E+02		
B5-1	1634-04-4	SW8260B	9/2/2009	-1	-1.5	1.01E-03	U	1.01E-03	5.00E-03	1.02E+02	7.06E+02		
B5-2	1634-04-4	SW8260B	9/2/2009	-14.5	-15	9.58E-04	U	9.58E-04	5.00E-03	1.02E+02	7.06E+02		
B6-1	1634-04-4	SW8260B	9/2/2009	-0.5	-1	9.30E-04	U	9.30E-04	5.00E-03	1.02E+02	7.06E+02		
B6-2	1634-04-4	SW8260B	9/2/2009	-14.5	-15	9.58E-04	U	9.58E-04	5.00E-03	1.02E+02	7.06E+02		
B7 0-1'	1634-04-4	SW8260B	11/11/2009	0	-1	1.10E-03	U	1.10E-03	5.00E-03	1.02E+02	7.06E+02		
B7 14-15'	1634-04-4	SW8260B	11/11/2009	-14	-15	1.21E-03	U	1.21E-03	5.00E-03	1.02E+02	7.06E+02		
B8-1	1634-04-4	SW8260B	9/2/2009	-1	-1.5	9.48E-04	U	9.48E-04	5.00E-03	1.02E+02	7.06E+02		
B8-2	1634-04-4	SW8260B	9/2/2009	-14	-15	9.22E-04	U	9.22E-04	5.00E-03	1.02E+02	7.06E+02		
B8-3	1634-04-4	SW8260B	9/2/2009	-8	-8.5	1.00E-03	U	1.00E-03	5.00E-03	1.02E+02	7.06E+02		
B9 0-1'	1634-04-4	SW8260B	11/11/2009	0	-1	1.30E-03	U	1.30E-03	5.00E-03	1.02E+02	7.06E+02		
B9 14-15'	1634-04-4	SW8260B	11/11/2009	-14	-15	1.20E-03	U	1.20E-03	5.00E-03	1.02E+02	7.06E+02		

Methylene chloride

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	75-09-2	SW8260B	8/31/2009	0	-1	2.33E-03	U	2.33E-03	5.00E-03	5.00E-01	1.59E+01		
B1 0-1'	75-09-2	SW8260B	11/11/2009	0	-1	3.46E-03	U	3.46E-03	5.00E-03	5.00E-01	1.59E+01		
B1 14-15'	75-09-2	SW8260B	11/11/2009	-14	-15	2.53E-03	U	2.53E-03	5.00E-03	5.00E-01	1.59E+01		
B10-1	75-09-2	SW8260B	9/2/2009	-2	-3	2.77E-03	U	2.77E-03	5.00E-03	5.00E-01	1.59E+01		
B10-2	75-09-2	SW8260B	9/2/2009	-13	-14	2.36E-03	U	2.36E-03	5.00E-03	5.00E-01	1.59E+01		
B2 1-1.5	75-09-2	SW8260B	9/1/2009	-1	-1.5	2.20E-03	U	2.20E-03	5.00E-03	5.00E-01	1.59E+01		
B2 21-22.5	75-09-2	SW8260B	9/1/2009	-21	-22.5	2.60E-03	U	2.60E-03	5.00E-03	5.00E-01	1.59E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Methylene chloride

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B3 12-13	75-09-2	SW8260B	8/31/2009	-12	-13	2.09E-03	U	2.09E-03	5.00E-03	5.00E-01	1.59E+01		
B3 2-3	75-09-2	SW8260B	8/31/2009	-2	-3	2.45E-03	U	2.44E-03	5.00E-03	5.00E-01	1.59E+01		
B4 14.5-15	75-09-2	SW8260B	9/1/2009	-14.5	-15	2.38E-03	U	2.38E-03	5.00E-03	5.00E-01	1.59E+01		
B4 2-2.5	75-09-2	SW8260B	9/1/2009	-2	-2.5	2.53E-03	U	2.53E-03	5.00E-03	5.00E-01	1.59E+01		
B5-1	75-09-2	SW8260B	9/2/2009	-1	-1.5	2.49E-03	U	2.49E-03	5.00E-03	5.00E-01	1.59E+01		
B5-2	75-09-2	SW8260B	9/2/2009	-14.5	-15	2.38E-03	U	2.38E-03	5.00E-03	5.00E-01	1.59E+01		
B6-1	75-09-2	SW8260B	9/2/2009	-0.5	-1	2.30E-03	U	2.30E-03	5.00E-03	5.00E-01	1.59E+01		
B6-2	75-09-2	SW8260B	9/2/2009	-14.5	-15	2.38E-03	U	2.38E-03	5.00E-03	5.00E-01	1.59E+01		
B7 0-1'	75-09-2	SW8260B	11/11/2009	0	-1	2.73E-03	U	2.73E-03	5.00E-03	5.00E-01	1.59E+01		
B7 14-15'	75-09-2	SW8260B	11/11/2009	-14	-15	3.00E-03	U	3.00E-03	5.00E-03	5.00E-01	1.59E+01		
B8-1	75-09-2	SW8260B	9/2/2009	-1	-1.5	2.35E-03	U	2.35E-03	5.00E-03	5.00E-01	1.59E+01		
B8-2	75-09-2	SW8260B	9/2/2009	-14	-15	2.29E-03	U	2.29E-03	5.00E-03	5.00E-01	1.59E+01		
B8-3	75-09-2	SW8260B	9/2/2009	-8	-8.5	2.48E-03	U	2.48E-03	5.00E-03	5.00E-01	1.59E+01		
B9 0-1'	75-09-2	SW8260B	11/11/2009	0	-1	3.21E-03	U	3.21E-03	5.00E-03	5.00E-01	1.59E+01		
B9 14-15'	75-09-2	SW8260B	11/11/2009	-14	-15	2.96E-03	U	2.96E-03	5.00E-03	5.00E-01	1.59E+01		

Naphthalene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	91-20-3	SW8270C	8/31/2009	0	-1	1.66E-01	U	1.66E-01	3.30E-01	2.04E+02	2.68E+02		
B1 0-1	91-20-3	SW8260B	8/31/2009	0	-1	9.87E-04	U	9.87E-04	1.50E-02	2.04E+02	2.68E+02		
B1 0-1'	91-20-3	SW8270C	11/11/2009	0	-1	1.72E-01	U	1.72E-01	3.30E-01	2.04E+02	2.68E+02		
B1 0-1'	91-20-3	SW8260B	11/11/2009	0	-1	1.48E-03	U	1.48E-03	1.50E-02	2.04E+02	2.68E+02		
B1 14-15'	91-20-3	SW8260B	11/11/2009	-14	-15	1.08E-03	U	1.08E-03	1.50E-02	2.04E+02	2.68E+02		
B1 14-15'	91-20-3	SW8270C	11/11/2009	-14	-15	1.55E-01	U	1.55E-01	3.30E-01	2.04E+02	2.68E+02		
B10-1	91-20-3	SW8260B	9/2/2009	-2	-3	1.18E-03	U	1.18E-03	1.50E-02	2.04E+02	2.68E+02		
B10-1	91-20-3	SW8270C	9/2/2009	-2	-3	1.98E-01	U	1.98E-01	3.30E-01	2.04E+02	2.68E+02		
B10-2	91-20-3	SW8260B	9/2/2009	-13	-14	1.00E-03	U	1.00E-03	1.50E-02	2.04E+02	2.68E+02		
B10-2	91-20-3	SW8270C	9/2/2009	-13	-14	1.69E-01	U	1.69E-01	3.30E-01	2.04E+02	2.68E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Naphthalene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 1-1.5	91-20-3	SW8270C	9/1/2009	-1	-1.5	1.57E-01	U	1.57E-01	3.30E-01	2.04E+02	2.68E+02		
B2 1-1.5	91-20-3	SW8260B	9/1/2009	-1	-1.5	9.33E-04	U	9.33E-04	1.50E-02	2.04E+02	2.68E+02		
B2 21-22.5	91-20-3	SW8260B	9/1/2009	-21	-22.5	1.10E-03	U	1.10E-03	1.50E-02	2.04E+02	2.68E+02		
B2 21-22.5	91-20-3	SW8270C	9/1/2009	-21	-22.5	1.86E-01	U	1.86E-01	3.30E-01	2.04E+02	2.68E+02		
B3 12-13	91-20-3	SW8260B	8/31/2009	-12	-13	8.88E-04	U	8.88E-04	1.50E-02	2.04E+02	2.68E+02		
B3 12-13	91-20-3	SW8270C	8/31/2009	-12	-13	1.49E-01	U	1.50E-01	3.30E-01	2.04E+02	2.68E+02		
B3 2-3	91-20-3	SW8260B	8/31/2009	-2	-3	1.04E-03	U	1.04E-03	1.50E-02	2.04E+02	2.68E+02		
B3 2-3	91-20-3	SW8270C	8/31/2009	-2	-3	1.75E-01	U	1.75E-01	3.30E-01	2.04E+02	2.68E+02		
B4 14.5-15	91-20-3	SW8260B	9/1/2009	-14.5	-15	1.01E-03	U	1.01E-03	1.50E-02	2.04E+02	2.68E+02		
B4 14-14.5	91-20-3	SW8270C	9/1/2009	-14	-14.5	1.68E-01	U	1.68E-01	3.30E-01	2.04E+02	2.68E+02		
B4 2-2.5	91-20-3	SW8270C	9/1/2009	-2	-2.5	1.81E-01	U	1.81E-01	3.30E-01	2.04E+02	2.68E+02		
B4 2-2.5	91-20-3	SW8260B	9/1/2009	-2	-2.5	1.08E-03	U	1.08E-03	1.50E-02	2.04E+02	2.68E+02		
B5-1	91-20-3	SW8270C	9/2/2009	-1	-1.5	1.78E-01	U	1.78E-01	3.30E-01	2.04E+02	2.68E+02		
B5-1	91-20-3	SW8260B	9/2/2009	-1	-1.5	1.06E-03	U	1.06E-03	1.50E-02	2.04E+02	2.68E+02		
B5-2	91-20-3	SW8270C	9/2/2009	-14.5	-15	1.70E-01	U	1.70E-01	3.30E-01	2.04E+02	2.68E+02		
B5-2	91-20-3	SW8260B	9/2/2009	-14.5	-15	1.01E-03	U	1.01E-03	1.50E-02	2.04E+02	2.68E+02		
B6-1	91-20-3	SW8260B	9/2/2009	-0.5	-1	9.78E-04	U	9.78E-04	1.50E-02	2.04E+02	2.68E+02		
B6-1	91-20-3	SW8270C	9/2/2009	-0.5	-1	1.65E-01	U	1.65E-01	3.30E-01	2.04E+02	2.68E+02		
B6-2	91-20-3	SW8270C	9/2/2009	-14.5	-15	1.70E-01	U	1.70E-01	3.30E-01	2.04E+02	2.68E+02		
B6-2	91-20-3	SW8260B	9/2/2009	-14.5	-15	1.01E-03	U	1.01E-03	1.50E-02	2.04E+02	2.68E+02		
B7 0-1'	91-20-3	SW8270C	11/11/2009	0	-1	1.59E-01	U	1.59E-01	3.30E-01	2.04E+02	2.68E+02		
B7 0-1'	91-20-3	SW8260B	11/11/2009	0	-1	1.63E-02		1.17E-03	1.50E-02	2.04E+02	2.68E+02		
B7 14-15'	91-20-3	SW8270C	11/11/2009	-14	-15	1.64E-01	U	1.64E-01	3.30E-01	2.04E+02	2.68E+02		
B7 14-15'	91-20-3	SW8260B	11/11/2009	-14	-15	2.44E-03		1.27E-03	1.50E-02	2.04E+02	2.68E+02		
B8-1	91-20-3	SW8260B	9/2/2009	-1	-1.5	9.98E-04	U	9.98E-04	1.50E-02	2.04E+02	2.68E+02		
B8-1	91-20-3	SW8270C	9/2/2009	-1	-1.5	1.68E-01	U	1.68E-01	3.30E-01	2.04E+02	2.68E+02		
B8-2	91-20-3	SW8270C	9/2/2009	-14	-15	1.63E-01	U	1.63E-01	3.30E-01	2.04E+02	2.68E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Naphthalene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8-2	91-20-3	SW8260B	9/2/2009	-14	-15	9.70E-04	U	9.70E-04	1.50E-02	2.04E+02	2.68E+02		
B8-3	91-20-3	SW8260B	9/2/2009	-8	-8.5	1.05E-03	U	1.05E-03	1.50E-02	2.04E+02	2.68E+02		
B9 0-1'	91-20-3	SW8260B	11/11/2009	0	-1	1.37E-03	U	1.37E-03	1.50E-02	2.04E+02	2.68E+02		
B9 0-1'	91-20-3	SW8270C	11/11/2009	0	-1	1.68E-01	U	1.68E-01	3.30E-01	2.04E+02	2.68E+02		
B9 14-15'	91-20-3	SW8260B	11/11/2009	-14	-15	8.69E-03		1.25E-03	1.50E-02	2.04E+02	2.68E+02		
B9 14-15'	91-20-3	SW8270C	11/11/2009	-14	-15	1.63E-01	U	1.63E-01	3.30E-01	2.04E+02	2.68E+02		

n-Butylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	104-51-8	SW8260B	8/31/2009	0	-1	8.23E-04	U	8.23E-04	5.00E-03	4.09E+02	5.74E+03		
B1 0-1'	104-51-8	SW8260B	11/11/2009	0	-1	1.23E-03	U	1.23E-03	5.00E-03	4.09E+02	5.74E+03		
B1 14-15'	104-51-8	SW8260B	11/11/2009	-14	-15	8.97E-04	U	8.97E-04	5.00E-03	4.09E+02	5.74E+03		
B10-1	104-51-8	SW8260B	9/2/2009	-2	-3	9.82E-04	U	9.82E-04	5.00E-03	4.09E+02	5.74E+03		
B10-2	104-51-8	SW8260B	9/2/2009	-13	-14	8.36E-04	U	8.36E-04	5.00E-03	4.09E+02	5.74E+03		
B2 1-1.5	104-51-8	SW8260B	9/1/2009	-1	-1.5	7.78E-04	U	7.78E-04	5.00E-03	4.09E+02	5.74E+03		
B2 21-22.5	104-51-8	SW8260B	9/1/2009	-21	-22.5	9.21E-04	U	9.21E-04	5.00E-03	4.09E+02	5.74E+03		
B3 12-13	104-51-8	SW8260B	8/31/2009	-12	-13	7.40E-04	U	7.40E-04	5.00E-03	4.09E+02	5.74E+03		
B3 2-3	104-51-8	SW8260B	8/31/2009	-2	-3	8.65E-04	U	8.66E-04	5.00E-03	4.09E+02	5.74E+03		
B4 14.5-15	104-51-8	SW8260B	9/1/2009	-14.5	-15	8.41E-04	U	8.41E-04	5.00E-03	4.09E+02	5.74E+03		
B4 2-2.5	104-51-8	SW8260B	9/1/2009	-2	-2.5	8.97E-04	U	8.97E-04	5.00E-03	4.09E+02	5.74E+03		
B5-1	104-51-8	SW8260B	9/2/2009	-1	-1.5	8.83E-04	U	8.83E-04	5.00E-03	4.09E+02	5.74E+03		
B5-2	104-51-8	SW8260B	9/2/2009	-14.5	-15	8.41E-04	U	8.41E-04	5.00E-03	4.09E+02	5.74E+03		
B6-1	104-51-8	SW8260B	9/2/2009	-0.5	-1	8.16E-04	U	8.16E-04	5.00E-03	4.09E+02	5.74E+03		
B6-2	104-51-8	SW8260B	9/2/2009	-14.5	-15	8.41E-04	U	8.41E-04	5.00E-03	4.09E+02	5.74E+03		
B7 0-1'	104-51-8	SW8260B	11/11/2009	0	-1	1.11E-02		9.69E-04	5.00E-03	4.09E+02	5.74E+03		
B7 14-15'	104-51-8	SW8260B	11/11/2009	-14	-15	1.06E-03	U	1.06E-03	5.00E-03	4.09E+02	5.74E+03		
B8-1	104-51-8	SW8260B	9/2/2009	-1	-1.5	8.32E-04	U	8.32E-04	5.00E-03	4.09E+02	5.74E+03		
B8-2	104-51-8	SW8260B	9/2/2009	-14	-15	8.09E-04	U	8.09E-04	5.00E-03	4.09E+02	5.74E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

n-Butylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8-3	104-51-8	SW8260B	9/2/2009	-8	-8.5	8.77E-04	U	8.77E-04	5.00E-03	4.09E+02	5.74E+03		
B9 0-1'	104-51-8	SW8260B	11/11/2009	0	-1	1.14E-03	U	1.14E-03	5.00E-03	4.09E+02	5.74E+03		
B9 14-15'	104-51-8	SW8260B	11/11/2009	-14	-15	1.57E-03		1.05E-03	5.00E-03	4.09E+02	5.74E+03		

Nickel

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-02-0	SW6010B	8/31/2009	0	-1	7.93E+00		5.57E-01	1.00E+00	2.04E+02	1.17E+04	3.93E+00	8.87E+00
B1 0-1'	7440-02-0	SW6010B	11/11/2009	0	-1	1.17E+01		5.76E-01	1.00E+00	2.04E+02	1.17E+04	3.93E+00	8.87E+00
B1 14-15'	7440-02-0	SW6010B	11/11/2009	-14	-15	6.98E+00		5.18E-01	1.00E+00	2.04E+02	1.17E+04		
B10-1	7440-02-0	SW6010B	9/2/2009	-2	-3	9.60E+00		6.64E-01	1.00E+00	2.04E+02	1.17E+04	6.15E+01	1.52E+01
B10-2	7440-02-0	SW6010B	9/2/2009	-13	-14	7.34E+00		5.66E-01	1.00E+00	2.04E+02	1.17E+04		
B2 1-1.5	7440-02-0	SW6010B	9/1/2009	-1	-1.5	1.31E+01		5.26E-01	1.00E+00	2.04E+02	1.17E+04	6.15E+01	1.52E+01
B2 21-22.5	7440-02-0	SW6010B	9/1/2009	-21	-22.5	2.09E+01		6.23E-01	1.00E+00	2.04E+02	1.17E+04		
B3 12-13	7440-02-0	SW6010B	8/31/2009	-12	-13	7.58E+00		5.01E-01	1.00E+00	2.04E+02	1.17E+04		
B3 2-3	7440-02-0	SW6010B	8/31/2009	-2	-3	1.11E+01		5.86E-01	1.00E+00	2.04E+02	1.17E+04	6.15E+01	1.52E+01
B4 14-14.5	7440-02-0	SW6010B	9/1/2009	-14	-14.5	3.74E+01		5.62E-01	1.00E+00	2.04E+02	1.17E+04		
B4 2-2.5	7440-02-0	SW6010B	9/1/2009	-2	-2.5	1.05E+01		6.07E-01	1.00E+00	2.04E+02	1.17E+04	6.15E+01	1.52E+01
B5-1	7440-02-0	SW6010B	9/2/2009	-1	-1.5	1.22E+01		5.97E-01	1.00E+00	2.04E+02	1.17E+04	6.15E+01	1.52E+01
B5-2	7440-02-0	SW6010B	9/2/2009	-14.5	-15	2.95E+01		5.69E-01	1.00E+00	2.04E+02	1.17E+04		
B6-1	7440-02-0	SW6010B	9/2/2009	-0.5	-1	8.76E+00		5.52E-01	1.00E+00	2.04E+02	1.17E+04	3.93E+00	8.87E+00
B6-2	7440-02-0	SW6010B	9/2/2009	-14.5	-15	3.12E+01		5.69E-01	1.00E+00	2.04E+02	1.17E+04		
B7 0-1'	7440-02-0	SW6010B	11/11/2009	0	-1	7.69E+00		5.32E-01	1.00E+00	2.04E+02	1.17E+04	3.93E+00	8.87E+00
B7 14-15'	7440-02-0	SW6010B	11/11/2009	-14	-15	3.55E+00		5.48E-01	1.00E+00	2.04E+02	1.17E+04		
B8-1	7440-02-0	SW6010B	9/2/2009	-1	-1.5	7.18E+00		5.63E-01	1.00E+00	2.04E+02	1.17E+04	6.15E+01	1.52E+01
B8-2	7440-02-0	SW6010B	9/2/2009	-14	-15	1.50E+01		5.47E-01	1.00E+00	2.04E+02	1.17E+04		
B9 0-1'	7440-02-0	SW6010B	11/11/2009	0	-1	5.19E+00		5.62E-01	1.00E+00	2.04E+02	1.17E+04	3.93E+00	8.87E+00
B9 14-15'	7440-02-0	SW6010B	11/11/2009	-14	-15	9.24E+00		5.46E-01	1.00E+00	2.04E+02	1.17E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Nitrobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	98-95-3	SW8270C	8/31/2009	0	-1	1.69E-01	U	1.69E-01	3.30E-01	5.11E+00	2.68E+02		
B1 0-1'	98-95-3	SW8270C	11/11/2009	0	-1	1.74E-01	U	1.74E-01	3.30E-01	5.11E+00	2.68E+02		
B1 1-2 FT	98-95-3	SW-846 8	8/31/2009	-1	-2	8.53E-01	U	8.53E-01	1.00E-01	5.11E+00	2.68E+02		
B1 13-14	98-95-3	SW-846 8	8/31/2009	-13	-14	8.53E-01	U	8.53E-01	1.00E-01	5.11E+00	2.68E+02		
B1 14-15'	98-95-3	SW8270C	11/11/2009	-14	-15	1.57E-01	U	1.57E-01	3.30E-01	5.11E+00	2.68E+02		
B10 1 - 2	98-95-3	SW-846 8	9/2/2009	-1	-2	1.01E+00	U	1.01E+00	1.00E-01	5.11E+00	2.68E+02		
B10 11.5 - 1	98-95-3	SW-846 8	9/2/2009	-11.5	-12	1.05E+00	U	1.05E+00	1.00E-01	5.11E+00	2.68E+02		
B10-1	98-95-3	SW8270C	9/2/2009	-2	-3	2.01E-01	U	2.01E-01	3.30E-01	5.11E+00	2.68E+02		
B10-2	98-95-3	SW8270C	9/2/2009	-13	-14	1.71E-01	U	1.71E-01	3.30E-01	5.11E+00	2.68E+02		
B2 0.5-1.0	98-95-3	SW-846 8	9/1/2009	-0.5	-1	8.53E-01	U	8.53E-01	1.00E-01	5.11E+00	2.68E+02		
B2 1-1.5	98-95-3	SW8270C	9/1/2009	-1	-1.5	1.59E-01	U	1.59E-01	3.30E-01	5.11E+00	2.68E+02		
B2 21-21.5	98-95-3	SW-846 8	9/1/2009	-21	-21.5	8.53E-01	U	8.53E-01	1.00E-01	5.11E+00	2.68E+02		
B2 21-22.5	98-95-3	SW8270C	9/1/2009	-21	-22.5	1.89E-01	U	1.89E-01	3.30E-01	5.11E+00	2.68E+02		
B3 0-1	98-95-3	SW-846 8	8/31/2009	0	-1	8.53E-01	U	8.53E-01	1.00E-01	5.11E+00	2.68E+02		
B3 12-13	98-95-3	SW8270C	8/31/2009	-12	-13	1.52E-01	U	1.52E-01	3.30E-01	5.11E+00	2.68E+02		
B3 14-15	98-95-3	SW-846 8	8/31/2009	-14	-15	8.53E-01	U	8.53E-01	1.00E-01	5.11E+00	2.68E+02		
B3 2-3	98-95-3	SW8270C	8/31/2009	-2	-3	1.77E-01	U	1.77E-01	3.30E-01	5.11E+00	2.68E+02		
B4 13-14	98-95-3	SW-846 8	9/1/2009	-13	-14	8.53E-01	U	8.53E-01	1.00E-01	5.11E+00	2.68E+02		
B4 14-14.5	98-95-3	SW8270C	9/1/2009	-14	-14.5	1.70E-01	U	1.70E-01	3.30E-01	5.11E+00	2.68E+02		
B4 2-2.5	98-95-3	SW8270C	9/1/2009	-2	-2.5	1.84E-01	U	1.84E-01	3.30E-01	5.11E+00	2.68E+02		
B4 3-3.5	98-95-3	SW-846 8	9/1/2009	-3	-3.5	8.53E-01	U	8.53E-01	1.00E-01	5.11E+00	2.68E+02		
B5 14 - 14.	98-95-3	SW-846 8	9/2/2009	-14	-14.5	1.00E+00	U	1.00E+00	1.00E-01	5.11E+00	2.68E+02		
B5 0.5 - 1 M	98-95-3	SW-846 8	9/2/2009	-0.5	-1	1.04E+00	U	1.04E+00	1.00E-01	5.11E+00	2.68E+02		
B5-1	98-95-3	SW8270C	9/2/2009	-1	-1.5	1.81E-01	U	1.81E-01	3.30E-01	5.11E+00	2.68E+02		
B5-2	98-95-3	SW8270C	9/2/2009	-14.5	-15	1.72E-01	U	1.72E-01	3.30E-01	5.11E+00	2.68E+02		
B6 1 - 1.5	98-95-3	SW-846 8	9/2/2009	-1	-1.5	1.00E+00	U	1.00E+00	1.00E-01	5.11E+00	2.68E+02		
B6 14 - 14.5	98-95-3	SW-846 8	9/2/2009	-14	-14.5	9.82E-01	U	9.82E-01	1.00E-01	5.11E+00	2.68E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Nitrobenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6-1	98-95-3	SW8270C	9/2/2009	-0.5	-1	1.67E-01	U	1.67E-01	3.30E-01	5.11E+00	2.68E+02		
B6-2	98-95-3	SW8270C	9/2/2009	-14.5	-15	1.72E-01	U	1.72E-01	3.30E-01	5.11E+00	2.68E+02		
B7 0-1'	98-95-3	SW8270C	11/11/2009	0	-1	1.61E-01	U	1.61E-01	3.30E-01	5.11E+00	2.68E+02		
B7 0-1 FT	98-95-3	SW-846 8	8/31/2009	0	-1	8.53E-01	U	8.53E-01	1.00E-01	5.11E+00	2.68E+02		
B7 14-15	98-95-3	SW-846 8	8/31/2009	-14	-15	8.53E-01	U	8.53E-01	1.00E-01	5.11E+00	2.68E+02		
B7 14-15'	98-95-3	SW8270C	11/11/2009	-14	-15	1.66E-01	U	1.66E-01	3.30E-01	5.11E+00	2.68E+02		
B8 13 - 14	98-95-3	SW-846 8	9/2/2009	-13	-14	9.68E-01	U	9.68E-01	1.00E-01	5.11E+00	2.68E+02		
B8 2.75 - 3	98-95-3	SW-846 8	9/2/2009	-2.75	-3	1.07E+00	U	1.07E+00	1.00E-01	5.11E+00	2.68E+02		
B8-1	98-95-3	SW8270C	9/2/2009	-1	-1.5	1.70E-01	U	1.70E-01	3.30E-01	5.11E+00	2.68E+02		
B8-2	98-95-3	SW8270C	9/2/2009	-14	-15	1.66E-01	U	1.66E-01	3.30E-01	5.11E+00	2.68E+02		
B9 0-1'	98-95-3	SW8270C	11/11/2009	0	-1	1.70E-01	U	1.70E-01	3.30E-01	5.11E+00	2.68E+02		
B9 14-15	98-95-3	SW-846 8	8/31/2009	-14	-15	8.53E-01	U	8.53E-01	1.00E-01	5.11E+00	2.68E+02		
B9 14-15'	98-95-3	SW8270C	11/11/2009	-14	-15	1.65E-01	U	1.65E-01	3.30E-01	5.11E+00	2.68E+02		
B9-0-2 FT	98-95-3	SW-846 8	8/31/2009	0	-2	8.53E-01	U	8.53E-01	1.00E-01	5.11E+00	2.68E+02		

N-Nitrosodimethylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	62-75-9	SW8270C	8/31/2009	0	-1	8.69E-02	U	8.69E-02	3.30E-01	5.61E-04	1.12E-01		
B1 0-1	62-75-9	SW8270C	8/31/2009	0	-1	1.12E-02	U	1.12E-02	3.33E-02	5.61E-04	1.12E-01		
B1 0-1'	62-75-9	SW8270C	11/11/2009	0	-1	1.21E-02	U	1.21E-02	3.30E-02	5.61E-04	1.12E-01		
B1 14-15'	62-75-9	SW8270C	11/11/2009	-14	-15	1.09E-02	U	1.09E-02	3.30E-02	5.61E-04	1.12E-01		
B10-1	62-75-9	SW8270C	9/2/2009	-2	-3	1.04E-01	U	1.04E-01	3.30E-01	5.61E-04	1.12E-01		
B10-1	62-75-9	SW8270C	9/2/2009	-2	-3	1.33E-02	U	1.33E-02	3.33E-02	5.61E-04	1.12E-01		
B10-2	62-75-9	SW8270C	9/2/2009	-13	-14	1.13E-02	U	1.13E-02	3.33E-02	5.61E-04	1.12E-01		
B10-2	62-75-9	SW8270C	9/2/2009	-13	-14	8.82E-02	U	8.82E-02	3.30E-01	5.61E-04	1.12E-01		
B2 1-1.5	62-75-9	SW8270C	9/1/2009	-1	-1.5	1.05E-02	U	1.05E-02	3.33E-02	5.61E-04	1.12E-01		
B2 1-1.5	62-75-9	SW8270C	9/1/2009	-1	-1.5	8.21E-02	U	8.21E-02	3.30E-01	5.61E-04	1.12E-01		
B2 21-22.5	62-75-9	SW8270C	9/1/2009	-21	-22.5	1.25E-02	U	1.25E-02	3.33E-02	5.61E-04	1.12E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

N-Nitrosodimethylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B2 21-22.5	62-75-9	SW8270C	9/1/2009	-21	-22.5	9.71E-02	U	9.71E-02	3.30E-01	5.61E-04	1.12E-01		
B3 12-13	62-75-9	SW8270C	8/31/2009	-12	-13	1.00E-02	U	1.00E-02	3.33E-02	5.61E-04	1.12E-01		
B3 12-13	62-75-9	SW8270C	8/31/2009	-12	-13	7.81E-02	U	7.81E-02	3.30E-01	5.61E-04	1.12E-01		
B3 2-3	62-75-9	SW8270C	8/31/2009	-2	-3	9.13E-02	U	9.13E-02	3.30E-01	5.61E-04	1.12E-01		
B3 2-3	62-75-9	SW8270C	8/31/2009	-2	-3	1.17E-02	U	1.17E-02	3.33E-02	5.61E-04	1.12E-01		
B4 14-14.5	62-75-9	SW8270C	9/1/2009	-14	-14.5	1.13E-02	U	1.13E-02	3.33E-02	5.61E-04	1.12E-01		
B4 14-14.5	62-75-9	SW8270C	9/1/2009	-14	-14.5	8.77E-02	U	8.77E-02	3.30E-01	5.61E-04	1.12E-01		
B4 2-2.5	62-75-9	SW8270C	9/1/2009	-2	-2.5	9.47E-02	U	9.47E-02	3.30E-01	5.61E-04	1.12E-01		
B4 2-2.5	62-75-9	SW8270C	9/1/2009	-2	-2.5	1.22E-02	U	1.22E-02	3.33E-02	5.61E-04	1.12E-01		
B5-1	62-75-9	SW8270C	9/2/2009	-1	-1.5	9.31E-02	U	9.31E-02	3.30E-01	5.61E-04	1.12E-01		
B5-1	62-75-9	SW8270C	9/2/2009	-1	-1.5	1.20E-02	U	1.20E-02	3.33E-02	5.61E-04	1.12E-01		
B5-2	62-75-9	SW8270C	9/2/2009	-14.5	-15	8.87E-02	U	8.87E-02	3.30E-01	5.61E-04	1.12E-01		
B5-2	62-75-9	SW8270C	9/2/2009	-14.5	-15	1.14E-02	U	1.14E-02	3.33E-02	5.61E-04	1.12E-01		
B6-1	62-75-9	SW8270C	9/2/2009	-0.5	-1	8.61E-02	U	8.61E-02	3.30E-01	5.61E-04	1.12E-01		
B6-1	62-75-9	SW8270C	9/2/2009	-0.5	-1	1.10E-02	U	1.10E-02	3.33E-02	5.61E-04	1.12E-01		
B6-2	62-75-9	SW8270C	9/2/2009	-14.5	-15	8.87E-02	U	8.87E-02	3.30E-01	5.61E-04	1.12E-01		
B6-2	62-75-9	SW8270C	9/2/2009	-14.5	-15	1.14E-02	U	1.14E-02	3.33E-02	5.61E-04	1.12E-01		
B7 0-1'	62-75-9	SW8270C	11/11/2009	0	-1	1.12E-02	U	1.12E-02	3.30E-02	5.61E-04	1.12E-01		
B7 14-15'	62-75-9	SW8270C	11/11/2009	-14	-15	1.16E-02	U	1.16E-02	3.30E-02	5.61E-04	1.12E-01		
B8-1	62-75-9	SW8270C	9/2/2009	-1	-1.5	8.78E-02	U	8.78E-02	3.30E-01	5.61E-04	1.12E-01		
B8-1	62-75-9	SW8270C	9/2/2009	-1	-1.5	1.13E-02	U	1.13E-02	3.33E-02	5.61E-04	1.12E-01		
B8-2	62-75-9	SW8270C	9/2/2009	-14	-15	1.10E-02	U	1.10E-02	3.33E-02	5.61E-04	1.12E-01		
B8-2	62-75-9	SW8270C	9/2/2009	-14	-15	8.54E-02	U	8.54E-02	3.30E-01	5.61E-04	1.12E-01		
B9 0-1'	62-75-9	SW8270C	11/11/2009	0	-1	1.18E-02	U	1.18E-02	3.30E-02	5.61E-04	1.12E-01		
B9 14-15'	62-75-9	SW8270C	11/11/2009	-14	-15	1.15E-02	U	1.15E-02	3.30E-02	5.61E-04	1.12E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

N-Nitrosodi-n-propylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	621-64-7	SW8270C	8/31/2009	0	-1	1.17E-02	U	1.17E-02	3.33E-02	4.09E-03	1.64E-01		
B1 0-1	621-64-7	SW8270C	8/31/2009	0	-1	5.51E-01		7.56E-02	3.30E-01	4.09E-03	1.64E-01		
B1 0-1'	621-64-7	SW8270C	11/11/2009	0	-1	1.15E-02	U	1.15E-02	3.30E-02	4.09E-03	1.64E-01		
B1 14-15'	621-64-7	SW8270C	11/11/2009	-14	-15	1.04E-02	U	1.04E-02	3.30E-02	4.09E-03	1.64E-01		
B10-1	621-64-7	SW8270C	9/2/2009	-2	-3	1.40E-02	U	1.40E-02	3.33E-02	4.09E-03	1.64E-01		
B10-1	621-64-7	SW8270C	9/2/2009	-2	-3	9.02E-02	U	9.02E-02	3.30E-01	4.09E-03	1.64E-01		
B10-2	621-64-7	SW8270C	9/2/2009	-13	-14	7.67E-02	U	7.67E-02	3.30E-01	4.09E-03	1.64E-01		
B10-2	621-64-7	SW8270C	9/2/2009	-13	-14	1.19E-02	U	1.19E-02	3.33E-02	4.09E-03	1.64E-01		
B2 1-1.5	621-64-7	SW8270C	9/1/2009	-1	-1.5	4.90E-01		7.14E-02	3.30E-01	4.09E-03	1.64E-01		
B2 1-1.5	621-64-7	SW8270C	9/1/2009	-1	-1.5	1.11E-02	U	1.11E-02	3.33E-02	4.09E-03	1.64E-01		
B2 21-22.5	621-64-7	SW8270C	9/1/2009	-21	-22.5	1.31E-02	U	1.31E-02	3.33E-02	4.09E-03	1.64E-01		
B2 21-22.5	621-64-7	SW8270C	9/1/2009	-21	-22.5	4.51E-01		8.45E-02	3.30E-01	4.09E-03	1.64E-01		
B3 12-13	621-64-7	SW8270C	8/31/2009	-12	-13	6.80E-02	U	6.80E-02	3.30E-01	4.09E-03	1.64E-01		
B3 12-13	621-64-7	SW8270C	8/31/2009	-12	-13	1.06E-02	U	1.06E-02	3.33E-02	4.09E-03	1.64E-01		
B3 2-3	621-64-7	SW8270C	8/31/2009	-2	-3	7.95E-02	U	7.95E-02	3.30E-01	4.09E-03	1.64E-01		
B3 2-3	621-64-7	SW8270C	8/31/2009	-2	-3	1.23E-02	U	1.23E-02	3.33E-02	4.09E-03	1.64E-01		
B4 14-14.5	621-64-7	SW8270C	9/1/2009	-14	-14.5	1.19E-02	U	1.19E-02	3.33E-02	4.09E-03	1.64E-01		
B4 14-14.5	621-64-7	SW8270C	9/1/2009	-14	-14.5	7.63E-02	U	7.63E-02	3.30E-01	4.09E-03	1.64E-01		
B4 2-2.5	621-64-7	SW8270C	9/1/2009	-2	-2.5	1.28E-02	U	1.28E-02	3.33E-02	4.09E-03	1.64E-01		
B4 2-2.5	621-64-7	SW8270C	9/1/2009	-2	-2.5	4.01E-01		8.24E-02	3.30E-01	4.09E-03	1.64E-01		
B5-1	621-64-7	SW8270C	9/2/2009	-1	-1.5	1.26E-02	U	1.26E-02	3.33E-02	4.09E-03	1.64E-01		
B5-1	621-64-7	SW8270C	9/2/2009	-1	-1.5	5.34E-01	JH	8.10E-02	3.30E-01	4.09E-03	1.64E-01		
B5-2	621-64-7	SW8270C	9/2/2009	-14.5	-15	4.95E-01	JH	7.72E-02	3.30E-01	4.09E-03	1.64E-01		
B5-2	621-64-7	SW8270C	9/2/2009	-14.5	-15	1.20E-02	U	1.20E-02	3.33E-02	4.09E-03	1.64E-01		
B6-1	621-64-7	SW8270C	9/2/2009	-0.5	-1	1.16E-02	U	1.16E-02	3.33E-02	4.09E-03	1.64E-01		
B6-1	621-64-7	SW8270C	9/2/2009	-0.5	-1	7.49E-02	U	7.49E-02	3.30E-01	4.09E-03	1.64E-01		
B6-2	621-64-7	SW8270C	9/2/2009	-14.5	-15	1.20E-02	U	1.20E-02	3.33E-02	4.09E-03	1.64E-01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

N-Nitrosodi-n-propylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6-2	621-64-7	SW8270C	9/2/2009	-14.5	-15	7.72E-02	U	7.72E-02	3.30E-01	4.09E-03	1.64E-01		
B7 0-1'	621-64-7	SW8270C	11/11/2009	0	-1	1.07E-02	U	1.07E-02	3.30E-02	4.09E-03	1.64E-01		
B7 14-15'	621-64-7	SW8270C	11/11/2009	-14	-15	1.10E-02	U	1.10E-02	3.30E-02	4.09E-03	1.64E-01		
B8-1	621-64-7	SW8270C	9/2/2009	-1	-1.5	1.19E-02	U	1.19E-02	3.33E-02	4.09E-03	1.64E-01		
B8-1	621-64-7	SW8270C	9/2/2009	-1	-1.5	7.64E-02	U	7.64E-02	3.30E-01	4.09E-03	1.64E-01		
B8-2	621-64-7	SW8270C	9/2/2009	-14	-15	7.43E-02	U	7.43E-02	3.30E-01	4.09E-03	1.64E-01		
B8-2	621-64-7	SW8270C	9/2/2009	-14	-15	1.15E-02	U	1.15E-02	3.33E-02	4.09E-03	1.64E-01		
B9 0-1'	621-64-7	SW8270C	11/11/2009	0	-1	1.13E-02	U	1.13E-02	3.30E-02	4.09E-03	1.64E-01		
B9 14-15'	621-64-7	SW8270C	11/11/2009	-14	-15	1.09E-02	U	1.09E-02	3.30E-02	4.09E-03	1.64E-01		

N-Nitrosodiphenylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	86-30-6	SW8270C	8/31/2009	0	-1	8.45E-02	U	8.45E-02	3.30E-01	5.84E+00	2.34E+02		
B1 0-1'	86-30-6	SW8270C	11/11/2009	0	-1	8.74E-02	U	8.74E-02	3.30E-01	5.84E+00	2.34E+02		
B1 14-15'	86-30-6	SW8270C	11/11/2009	-14	-15	7.87E-02	U	7.87E-02	3.30E-01	5.84E+00	2.34E+02		
B10-1	86-30-6	SW8270C	9/2/2009	-2	-3	1.01E-01	U	1.01E-01	3.30E-01	5.84E+00	2.34E+02		
B10-2	86-30-6	SW8270C	9/2/2009	-13	-14	8.58E-02	U	8.58E-02	3.30E-01	5.84E+00	2.34E+02		
B2 1-1.5	86-30-6	SW8270C	9/1/2009	-1	-1.5	7.99E-02	U	7.99E-02	3.30E-01	5.84E+00	2.34E+02		
B2 21-22.5	86-30-6	SW8270C	9/1/2009	-21	-22.5	9.45E-02	U	9.45E-02	3.30E-01	5.84E+00	2.34E+02		
B3 12-13	86-30-6	SW8270C	8/31/2009	-12	-13	7.60E-02	U	7.60E-02	3.30E-01	5.84E+00	2.34E+02		
B3 2-3	86-30-6	SW8270C	8/31/2009	-2	-3	8.89E-02	U	8.89E-02	3.30E-01	5.84E+00	2.34E+02		
B4 14-14.5	86-30-6	SW8270C	9/1/2009	-14	-14.5	8.53E-02	U	8.53E-02	3.30E-01	5.84E+00	2.34E+02		
B4 2-2.5	86-30-6	SW8270C	9/1/2009	-2	-2.5	9.21E-02	U	9.21E-02	3.30E-01	5.84E+00	2.34E+02		
B5-1	86-30-6	SW8270C	9/2/2009	-1	-1.5	9.06E-02	U	9.06E-02	3.30E-01	5.84E+00	2.34E+02		
B5-2	86-30-6	SW8270C	9/2/2009	-14.5	-15	8.63E-02	U	8.63E-02	3.30E-01	5.84E+00	2.34E+02		
B6-1	86-30-6	SW8270C	9/2/2009	-0.5	-1	8.38E-02	U	8.38E-02	3.30E-01	5.84E+00	2.34E+02		
B6-2	86-30-6	SW8270C	9/2/2009	-14.5	-15	8.63E-02	U	8.63E-02	3.30E-01	5.84E+00	2.34E+02		
B7 0-1'	86-30-6	SW8270C	11/11/2009	0	-1	8.07E-02	U	8.07E-02	3.30E-01	5.84E+00	2.34E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

N-Nitrosodiphenylamine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 14-15'	86-30-6	SW8270C	11/11/2009	-14	-15	8.32E-02	U	8.32E-02	3.30E-01	5.84E+00	2.34E+02		
B8-1	86-30-6	SW8270C	9/2/2009	-1	-1.5	8.54E-02	U	8.54E-02	3.30E-01	5.84E+00	2.34E+02		
B8-2	86-30-6	SW8270C	9/2/2009	-14	-15	8.31E-02	U	8.31E-02	3.30E-01	5.84E+00	2.34E+02		
B9 0-1'	86-30-6	SW8270C	11/11/2009	0	-1	8.52E-02	U	8.52E-02	3.30E-01	5.84E+00	2.34E+02		
B9 14-15'	86-30-6	SW8270C	11/11/2009	-14	-15	8.28E-02	U	8.28E-02	3.30E-01	5.84E+00	2.34E+02		

n-Propylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	103-65-1	SW8260B	8/31/2009	0	-1	1.12E-03	U	1.12E-03	5.00E-03	4.09E+02	5.91E+03		
B1 0-1'	103-65-1	SW8260B	11/11/2009	0	-1	1.67E-03	U	1.67E-03	5.00E-03	4.09E+02	5.91E+03		
B1 14-15'	103-65-1	SW8260B	11/11/2009	-14	-15	1.22E-03	U	1.22E-03	5.00E-03	4.09E+02	5.91E+03		
B10-1	103-65-1	SW8260B	9/2/2009	-2	-3	1.34E-03	U	1.34E-03	5.00E-03	4.09E+02	5.91E+03		
B10-2	103-65-1	SW8260B	9/2/2009	-13	-14	1.14E-03	U	1.14E-03	5.00E-03	4.09E+02	5.91E+03		
B2 1-1.5	103-65-1	SW8260B	9/1/2009	-1	-1.5	1.06E-03	U	1.06E-03	5.00E-03	4.09E+02	5.91E+03		
B2 21-22.5	103-65-1	SW8260B	9/1/2009	-21	-22.5	1.25E-03	U	1.25E-03	5.00E-03	4.09E+02	5.91E+03		
B3 12-13	103-65-1	SW8260B	8/31/2009	-12	-13	1.01E-03	U	1.01E-03	5.00E-03	4.09E+02	5.91E+03		
B3 2-3	103-65-1	SW8260B	8/31/2009	-2	-3	1.18E-03	U	1.18E-03	5.00E-03	4.09E+02	5.91E+03		
B4 14.5-15	103-65-1	SW8260B	9/1/2009	-14.5	-15	1.14E-03	U	1.14E-03	5.00E-03	4.09E+02	5.91E+03		
B4 2-2.5	103-65-1	SW8260B	9/1/2009	-2	-2.5	1.22E-03	U	1.22E-03	5.00E-03	4.09E+02	5.91E+03		
B5-1	103-65-1	SW8260B	9/2/2009	-1	-1.5	1.20E-03	U	1.20E-03	5.00E-03	4.09E+02	5.91E+03		
B5-2	103-65-1	SW8260B	9/2/2009	-14.5	-15	1.14E-03	U	1.14E-03	5.00E-03	4.09E+02	5.91E+03		
B6-1	103-65-1	SW8260B	9/2/2009	-0.5	-1	1.11E-03	U	1.11E-03	5.00E-03	4.09E+02	5.91E+03		
B6-2	103-65-1	SW8260B	9/2/2009	-14.5	-15	1.14E-03	U	1.14E-03	5.00E-03	4.09E+02	5.91E+03		
B7 0-1'	103-65-1	SW8260B	11/11/2009	0	-1	1.32E-03	U	1.32E-03	5.00E-03	4.09E+02	5.91E+03		
B7 14-15'	103-65-1	SW8260B	11/11/2009	-14	-15	1.44E-03	U	1.44E-03	5.00E-03	4.09E+02	5.91E+03		
B8-1	103-65-1	SW8260B	9/2/2009	-1	-1.5	1.13E-03	U	1.13E-03	5.00E-03	4.09E+02	5.91E+03		
B8-2	103-65-1	SW8260B	9/2/2009	-14	-15	1.10E-03	U	1.10E-03	5.00E-03	4.09E+02	5.91E+03		
B8-3	103-65-1	SW8260B	9/2/2009	-8	-8.5	1.19E-03	U	1.19E-03	5.00E-03	4.09E+02	5.91E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

n-Propylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B9 0-1'	103-65-1	SW8260B	11/11/2009	0	-1	1.55E-03	U	1.55E-03	5.00E-03	4.09E+02	5.91E+03		
B9 14-15'	103-65-1	SW8260B	11/11/2009	-14	-15	1.42E-03	U	1.42E-03	5.00E-03	4.09E+02	5.91E+03		

o-Xylene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	95-47-6	SW8260B	8/31/2009	0	-1	9.40E-04	U	9.40E-04	5.00E-03	1.00E+03	4.81E+04		
B1 0-1'	95-47-6	SW8260B	11/11/2009	0	-1	1.41E-03	U	1.41E-03	5.00E-03	1.00E+03	4.81E+04		
B1 14-15'	95-47-6	SW8260B	11/11/2009	-14	-15	1.02E-03	U	1.02E-03	5.00E-03	1.00E+03	4.81E+04		
B10-1	95-47-6	SW8260B	9/2/2009	-2	-3	1.12E-03	U	1.12E-03	5.00E-03	1.00E+03	4.81E+04		
B10-2	95-47-6	SW8260B	9/2/2009	-13	-14	9.54E-04	U	9.54E-04	5.00E-03	1.00E+03	4.81E+04		
B2 1-1.5	95-47-6	SW8260B	9/1/2009	-1	-1.5	8.88E-04	U	8.88E-04	5.00E-03	1.00E+03	4.81E+04		
B2 21-22.5	95-47-6	SW8260B	9/1/2009	-21	-22.5	1.05E-03	U	1.05E-03	5.00E-03	1.00E+03	4.81E+04		
B3 12-13	95-47-6	SW8260B	8/31/2009	-12	-13	8.45E-04	U	8.45E-04	5.00E-03	1.00E+03	4.81E+04		
B3 2-3	95-47-6	SW8260B	8/31/2009	-2	-3	9.88E-04	U	9.88E-04	5.00E-03	1.00E+03	4.81E+04		
B4 14.5-15	95-47-6	SW8260B	9/1/2009	-14.5	-15	9.60E-04	U	9.60E-04	5.00E-03	1.00E+03	4.81E+04		
B4 2-2.5	95-47-6	SW8260B	9/1/2009	-2	-2.5	1.02E-03	U	1.02E-03	5.00E-03	1.00E+03	4.81E+04		
B5-1	95-47-6	SW8260B	9/2/2009	-1	-1.5	1.01E-03	U	1.01E-03	5.00E-03	1.00E+03	4.81E+04		
B5-2	95-47-6	SW8260B	9/2/2009	-14.5	-15	9.60E-04	U	9.60E-04	5.00E-03	1.00E+03	4.81E+04		
B6-1	95-47-6	SW8260B	9/2/2009	-0.5	-1	9.31E-04	U	9.31E-04	5.00E-03	1.00E+03	4.81E+04		
B6-2	95-47-6	SW8260B	9/2/2009	-14.5	-15	9.60E-04	U	9.60E-04	5.00E-03	1.00E+03	4.81E+04		
B7 0-1'	95-47-6	SW8260B	11/11/2009	0	-1	1.11E-03	U	1.11E-03	5.00E-03	1.00E+03	4.81E+04		
B7 14-15'	95-47-6	SW8260B	11/11/2009	-14	-15	1.21E-03	U	1.21E-03	5.00E-03	1.00E+03	4.81E+04		
B8-1	95-47-6	SW8260B	9/2/2009	-1	-1.5	9.50E-04	U	9.49E-04	5.00E-03	1.00E+03	4.81E+04		
B8-2	95-47-6	SW8260B	9/2/2009	-14	-15	9.23E-04	U	9.23E-04	5.00E-03	1.00E+03	4.81E+04		
B8-3	95-47-6	SW8260B	9/2/2009	-8	-8.5	1.00E-03	U	1.00E-03	5.00E-03	1.00E+03	4.81E+04		
B9 0-1'	95-47-6	SW8260B	11/11/2009	0	-1	1.30E-03	U	1.30E-03	5.00E-03	1.00E+03	4.81E+04		
B9 14-15'	95-47-6	SW8260B	11/11/2009	-14	-15	1.20E-03	U	1.20E-03	5.00E-03	1.00E+03	4.81E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Pentachlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	87-86-5	SW8270C	8/31/2009	0	-1	1.46E-01	U	1.47E-01	3.30E-01	1.00E-01	1.36E+01		
B1 0-1	87-86-5	SW8270C	8/31/2009	0	-1	4.88E-02	U	4.88E-02	1.00E-01	1.00E-01	1.36E+01		
B1 0-1'	87-86-5	SW8270C	11/11/2009	0	-1	5.05E-02	U	5.05E-02	3.30E-01	1.00E-01	1.36E+01		
B1 14-15'	87-86-5	SW8270C	11/11/2009	-14	-15	4.54E-02	U	4.54E-02	3.30E-01	1.00E-01	1.36E+01		
B10-1	87-86-5	SW8270C	9/2/2009	-2	-3	1.75E-01	U	1.75E-01	3.30E-01	1.00E-01	1.36E+01		
B10-1	87-86-5	SW8270C	9/2/2009	-2	-3	5.83E-02	U	5.83E-02	1.00E-01	1.00E-01	1.36E+01		
B10-2	87-86-5	SW8270C	9/2/2009	-13	-14	1.49E-01	U	1.49E-01	3.30E-01	1.00E-01	1.36E+01		
B10-2	87-86-5	SW8270C	9/2/2009	-13	-14	4.96E-02	U	4.96E-02	1.00E-01	1.00E-01	1.36E+01		
B2 1-1.5	87-86-5	SW8270C	9/1/2009	-1	-1.5	1.39E-01	U	1.38E-01	3.30E-01	1.00E-01	1.36E+01		
B2 1-1.5	87-86-5	SW8270C	9/1/2009	-1	-1.5	4.62E-02	U	4.62E-02	1.00E-01	1.00E-01	1.36E+01		
B2 21-22.5	87-86-5	SW8270C	9/1/2009	-21	-22.5	5.46E-02	U	5.46E-02	1.00E-01	1.00E-01	1.36E+01		
B2 21-22.5	87-86-5	SW8270C	9/1/2009	-21	-22.5	1.64E-01	U	1.64E-01	3.30E-01	1.00E-01	1.36E+01		
B3 12-13	87-86-5	SW8270C	8/31/2009	-12	-13	1.32E-01	U	1.32E-01	3.30E-01	1.00E-01	1.36E+01		
B3 12-13	87-86-5	SW8270C	8/31/2009	-12	-13	4.39E-02	U	4.39E-02	1.00E-01	1.00E-01	1.36E+01		
B3 2-3	87-86-5	SW8270C	8/31/2009	-2	-3	1.54E-01	U	1.54E-01	3.30E-01	1.00E-01	1.36E+01		
B3 2-3	87-86-5	SW8270C	8/31/2009	-2	-3	5.13E-02	U	5.13E-02	1.00E-01	1.00E-01	1.36E+01		
B4 14-14.5	87-86-5	SW8270C	9/1/2009	-14	-14.5	1.48E-01	U	1.48E-01	3.30E-01	1.00E-01	1.36E+01		
B4 14-14.5	87-86-5	SW8270C	9/1/2009	-14	-14.5	4.93E-02	U	4.93E-02	1.00E-01	1.00E-01	1.36E+01		
B4 2-2.5	87-86-5	SW8270C	9/1/2009	-2	-2.5	1.60E-01	U	1.60E-01	3.30E-01	1.00E-01	1.36E+01		
B4 2-2.5	87-86-5	SW8270C	9/1/2009	-2	-2.5	5.32E-02	U	5.32E-02	1.00E-01	1.00E-01	1.36E+01		
B5-1	87-86-5	SW8270C	9/2/2009	-1	-1.5	5.24E-02	U	5.24E-02	1.00E-01	1.00E-01	1.36E+01		
B5-1	87-86-5	SW8270C	9/2/2009	-1	-1.5	1.57E-01	U	1.57E-01	3.30E-01	1.00E-01	1.36E+01		
B5-2	87-86-5	SW8270C	9/2/2009	-14.5	-15	4.99E-02	U	4.99E-02	1.00E-01	1.00E-01	1.36E+01		
B5-2	87-86-5	SW8270C	9/2/2009	-14.5	-15	1.50E-01	U	1.50E-01	3.30E-01	1.00E-01	1.36E+01		
B6-1	87-86-5	SW8270C	9/2/2009	-0.5	-1	1.45E-01	U	1.45E-01	3.30E-01	1.00E-01	1.36E+01		
B6-1	87-86-5	SW8270C	9/2/2009	-0.5	-1	4.84E-02	U	4.84E-02	1.00E-01	1.00E-01	1.36E+01		
B6-2	87-86-5	SW8270C	9/2/2009	-14.5	-15	1.50E-01	U	1.50E-01	3.30E-01	1.00E-01	1.36E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Pentachlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B6-2	87-86-5	SW8270C	9/2/2009	-14.5	-15	4.99E-02	U	4.99E-02	1.00E-01	1.00E-01	1.36E+01		
B7 0-1'	87-86-5	SW8270C	11/11/2009	0	-1	4.66E-02	U	4.66E-02	3.30E-01	1.00E-01	1.36E+01		
B7 14-15'	87-86-5	SW8270C	11/11/2009	-14	-15	4.81E-02	U	4.81E-02	3.30E-01	1.00E-01	1.36E+01		
B8-1	87-86-5	SW8270C	9/2/2009	-1	-1.5	4.94E-02	U	4.94E-02	1.00E-01	1.00E-01	1.36E+01		
B8-1	87-86-5	SW8270C	9/2/2009	-1	-1.5	1.48E-01	U	1.48E-01	3.30E-01	1.00E-01	1.36E+01		
B8-2	87-86-5	SW8270C	9/2/2009	-14	-15	1.44E-01	U	1.44E-01	3.30E-01	1.00E-01	1.36E+01		
B8-2	87-86-5	SW8270C	9/2/2009	-14	-15	4.80E-02	U	4.80E-02	1.00E-01	1.00E-01	1.36E+01		
B9 0-1'	87-86-5	SW8270C	11/11/2009	0	-1	4.92E-02	U	4.92E-02	3.30E-01	1.00E-01	1.36E+01		
B9 14-15'	87-86-5	SW8270C	11/11/2009	-14	-15	4.78E-02	U	4.78E-02	3.30E-01	1.00E-01	1.36E+01		

Perchlorate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 1-2 FT	7790-98-9	EPA 314.	8/31/2009	-1	-2	9.28E-03	U	9.28E-03	4.00E-03	7.15E+00	9.50E+02		
B1 13-14 FT	7790-98-9	EPA 314.	8/31/2009	-13	-14	9.13E-03	U	9.13E-03	4.00E-03	7.15E+00	9.50E+02		
B10 1 - 2	7790-98-9	EPA 314.	9/2/2009	-1	-2	9.51E-03	U	9.51E-03	4.00E-03	7.15E+00	9.50E+02		
B10 11.5 - 1	7790-98-9	EPA 314.	9/2/2009	-11.5	-12	9.84E-03	U	9.84E-03	4.00E-03	7.15E+00	9.50E+02		
B2 0.5-1.0	7790-98-9	EPA 314.	8/31/2009	-0.5	-1	8.98E-03	U	8.98E-03	4.00E-03	7.15E+00	9.50E+02		
B2 21-21.5	7790-98-9	EPA 314.	8/31/2009	-21	-21.5	1.00E-02	U	1.00E-02	4.00E-03	7.15E+00	9.50E+02		
B3 1-2	7790-98-9	EPA 314.	8/31/2009	-1	-2	9.25E-03	U	9.25E-03	4.00E-03	7.15E+00	9.50E+02		
B3 14-15	7790-98-9	EPA 314.	8/31/2009	-14	-15	8.91E-03	U	8.91E-03	4.00E-03	7.15E+00	9.50E+02		
B4 13-14	7790-98-9	EPA 314.	8/31/2009	-13	-14	9.24E-03	U	9.24E-03	4.00E-03	7.15E+00	9.50E+02		
B4 3-3.5	7790-98-9	EPA 314.	8/31/2009	-3	-3.5	9.91E-03	U	9.91E-03	4.00E-03	7.15E+00	9.50E+02		
B5 14 - 14.	7790-98-9	EPA 314.	9/2/2009	-14	-14.5	9.39E-03	U	9.39E-03	4.00E-03	7.15E+00	9.50E+02		
B5 0.5 - 1 M	7790-98-9	EPA 314.	9/2/2009	-0.5	-1	9.78E-03	U	9.78E-03	4.00E-03	7.15E+00	9.50E+02		
B6 1 - 1.5	7790-98-9	EPA 314.	9/2/2009	-1	-1.5	9.42E-03	U	9.42E-03	4.00E-03	7.15E+00	9.50E+02		
B6 14 - 14.5	7790-98-9	EPA 314.	9/2/2009	-14	-14.5	9.22E-03	U	9.22E-03	4.00E-03	7.15E+00	9.50E+02		
B-7 0-1 FT	7790-98-9	EPA 314.	8/31/2009	0	-1	8.70E-03	U	8.70E-03	4.00E-03	7.15E+00	9.50E+02		
B7 14-15 FT	7790-98-9	EPA 314.	8/31/2009	-14	-15	8.87E-03	U	8.87E-03	4.00E-03	7.15E+00	9.50E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Perchlorate

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8 13 - 14	7790-98-9	EPA 314.	9/2/2009	-13	-14	9.09E-03	U	9.09E-03	4.00E-03	7.15E+00	9.50E+02		
B8 2.75 - 3	7790-98-9	EPA 314.	9/2/2009	-2.75	-3	1.01E-02	U	1.01E-02	4.00E-03	7.15E+00	9.50E+02		
B9 0-2 FT	7790-98-9	EPA 314.	8/31/2009	0	-2	9.21E-03	U	9.21E-03	4.00E-03	7.15E+00	9.50E+02		
B9 14-15 FT	7790-98-9	EPA 314.	8/31/2009	-14	-15	9.49E-03	U	9.49E-03	4.00E-03	7.15E+00	9.50E+02		

Phenanthrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	85-01-8	SW8270C	8/31/2009	0	-1	1.11E-01	U	1.11E-01	3.30E-01	3.07E+02	2.67E+04		
B1 0-1'	85-01-8	SW8270C	11/11/2009	0	-1	1.15E-01	U	1.15E-01	3.30E-01	3.07E+02	2.67E+04		
B1 14-15'	85-01-8	SW8270C	11/11/2009	-14	-15	1.04E-01	U	1.04E-01	3.30E-01	3.07E+02	2.67E+04		
B10-1	85-01-8	SW8270C	9/2/2009	-2	-3	1.33E-01	U	1.33E-01	3.30E-01	3.07E+02	2.67E+04		
B10-2	85-01-8	SW8270C	9/2/2009	-13	-14	1.13E-01	U	1.13E-01	3.30E-01	3.07E+02	2.67E+04		
B2 1-1.5	85-01-8	SW8270C	9/1/2009	-1	-1.5	1.05E-01	U	1.05E-01	3.30E-01	3.07E+02	2.67E+04		
B2 21-22.5	85-01-8	SW8270C	9/1/2009	-21	-22.5	1.25E-01	U	1.25E-01	3.30E-01	3.07E+02	2.67E+04		
B3 12-13	85-01-8	SW8270C	8/31/2009	-12	-13	1.00E-01	U	1.00E-01	3.30E-01	3.07E+02	2.67E+04		
B3 2-3	85-01-8	SW8270C	8/31/2009	-2	-3	1.17E-01	U	1.17E-01	3.30E-01	3.07E+02	2.67E+04		
B4 14-14.5	85-01-8	SW8270C	9/1/2009	-14	-14.5	1.12E-01	U	1.12E-01	3.30E-01	3.07E+02	2.67E+04		
B4 2-2.5	85-01-8	SW8270C	9/1/2009	-2	-2.5	1.21E-01	U	1.21E-01	3.30E-01	3.07E+02	2.67E+04		
B5-1	85-01-8	SW8270C	9/2/2009	-1	-1.5	1.20E-01	U	1.19E-01	3.30E-01	3.07E+02	2.67E+04		
B5-2	85-01-8	SW8270C	9/2/2009	-14.5	-15	1.14E-01	U	1.14E-01	3.30E-01	3.07E+02	2.67E+04		
B6-1	85-01-8	SW8270C	9/2/2009	-0.5	-1	1.10E-01	U	1.10E-01	3.30E-01	3.07E+02	2.67E+04		
B6-2	85-01-8	SW8270C	9/2/2009	-14.5	-15	1.14E-01	U	1.14E-01	3.30E-01	3.07E+02	2.67E+04		
B7 0-1'	85-01-8	SW8270C	11/11/2009	0	-1	1.06E-01	U	1.06E-01	3.30E-01	3.07E+02	2.67E+04		
B7 14-15'	85-01-8	SW8270C	11/11/2009	-14	-15	1.10E-01	U	1.10E-01	3.30E-01	3.07E+02	2.67E+04		
B8-1	85-01-8	SW8270C	9/2/2009	-1	-1.5	1.13E-01	U	1.13E-01	3.30E-01	3.07E+02	2.67E+04		
B8-2	85-01-8	SW8270C	9/2/2009	-14	-15	1.10E-01	U	1.09E-01	3.30E-01	3.07E+02	2.67E+04		
B9 0-1'	85-01-8	SW8270C	11/11/2009	0	-1	1.12E-01	U	1.12E-01	3.30E-01	3.07E+02	2.67E+04		
B9 14-15'	85-01-8	SW8270C	11/11/2009	-14	-15	1.09E-01	U	1.09E-01	3.30E-01	3.07E+02	2.67E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Phenol

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	108-95-2	SW8270C	8/31/2009	0	-1	1.64E-01	U	1.64E-01	3.30E-01	3.07E+03	3.07E+05		
B1 0-1'	108-95-2	SW8270C	11/11/2009	0	-1	1.70E-01	U	1.69E-01	3.30E-01	3.07E+03	3.07E+05		
B1 14-15'	108-95-2	SW8270C	11/11/2009	-14	-15	1.53E-01	U	1.53E-01	3.30E-01	3.07E+03	3.07E+05		
B10-1	108-95-2	SW8270C	9/2/2009	-2	-3	1.96E-01	U	1.96E-01	3.30E-01	3.07E+03	3.07E+05		
B10-2	108-95-2	SW8270C	9/2/2009	-13	-14	1.67E-01	U	1.66E-01	3.30E-01	3.07E+03	3.07E+05		
B2 1-1.5	108-95-2	SW8270C	9/1/2009	-1	-1.5	1.55E-01	U	1.55E-01	3.30E-01	3.07E+03	3.07E+05		
B2 21-22.5	108-95-2	SW8270C	9/1/2009	-21	-22.5	1.83E-01	U	1.83E-01	3.30E-01	3.07E+03	3.07E+05		
B3 12-13	108-95-2	SW8270C	8/31/2009	-12	-13	1.47E-01	U	1.47E-01	3.30E-01	3.07E+03	3.07E+05		
B3 2-3	108-95-2	SW8270C	8/31/2009	-2	-3	1.72E-01	U	1.72E-01	3.30E-01	3.07E+03	3.07E+05		
B4 14-14.5	108-95-2	SW8270C	9/1/2009	-14	-14.5	1.66E-01	U	1.65E-01	3.30E-01	3.07E+03	3.07E+05		
B4 2-2.5	108-95-2	SW8270C	9/1/2009	-2	-2.5	1.79E-01	U	1.79E-01	3.30E-01	3.07E+03	3.07E+05		
B5-1	108-95-2	SW8270C	9/2/2009	-1	-1.5	1.76E-01	U	1.76E-01	3.30E-01	3.07E+03	3.07E+05		
B5-2	108-95-2	SW8270C	9/2/2009	-14.5	-15	1.68E-01	U	1.67E-01	3.30E-01	3.07E+03	3.07E+05		
B6-1	108-95-2	SW8270C	9/2/2009	-0.5	-1	1.62E-01	U	1.62E-01	3.30E-01	3.07E+03	3.07E+05		
B6-2	108-95-2	SW8270C	9/2/2009	-14.5	-15	1.68E-01	U	1.67E-01	3.30E-01	3.07E+03	3.07E+05		
B7 0-1'	108-95-2	SW8270C	11/11/2009	0	-1	1.57E-01	U	1.57E-01	3.30E-01	3.07E+03	3.07E+05		
B7 14-15'	108-95-2	SW8270C	11/11/2009	-14	-15	1.61E-01	U	1.61E-01	3.30E-01	3.07E+03	3.07E+05		
B8-1	108-95-2	SW8270C	9/2/2009	-1	-1.5	1.66E-01	U	1.66E-01	3.30E-01	3.07E+03	3.07E+05		
B8-2	108-95-2	SW8270C	9/2/2009	-14	-15	1.61E-01	U	1.61E-01	3.30E-01	3.07E+03	3.07E+05		
B9 0-1'	108-95-2	SW8270C	11/11/2009	0	-1	1.65E-01	U	1.65E-01	3.30E-01	3.07E+03	3.07E+05		
B9 14-15'	108-95-2	SW8270C	11/11/2009	-14	-15	1.61E-01	U	1.61E-01	3.30E-01	3.07E+03	3.07E+05		

Potassium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-09-7	SW6010B	8/31/2009	0	-1	1.09E+03		5.48E+00	1.00E+01			2.00E+02	4.44E+02
B1 0-1'	7440-09-7	SW6010B	11/11/2009	0	-1	1.16E+03		5.66E+00	2.50E+01			2.00E+02	4.44E+02
B1 14-15'	7440-09-7	SW6010B	11/11/2009	-14	-15	3.69E+02		5.10E+00	2.50E+01				
B10-1	7440-09-7	SW6010B	9/2/2009	-2	-3	9.63E+02		6.53E+00	1.00E+01			3.06E+02	4.95E+02

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Potassium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-2	7440-09-7	SW6010B	9/2/2009	-13	-14	7.20E+02		5.56E+00	1.00E+01				
B2 1-1.5	7440-09-7	SW6010B	9/1/2009	-1	-1.5	1.36E+03		5.18E+00	1.00E+01			3.06E+02	4.95E+02
B2 21-22.5	7440-09-7	SW6010B	9/1/2009	-21	-22.5	1.57E+03		6.12E+00	1.00E+01				
B3 12-13	7440-09-7	SW6010B	8/31/2009	-12	-13	2.31E+03		4.93E+00	1.00E+01				
B3 2-3	7440-09-7	SW6010B	8/31/2009	-2	-3	1.83E+03		5.76E+00	1.00E+01			3.06E+02	4.95E+02
B4 14-14.5	7440-09-7	SW6010B	9/1/2009	-14	-14.5	6.96E+02		5.53E+00	1.00E+01				
B4 2-2.5	7440-09-7	SW6010B	9/1/2009	-2	-2.5	4.74E+01		5.97E+00	1.00E+01			3.06E+02	4.95E+02
B5-1	7440-09-7	SW6010B	9/2/2009	-1	-1.5	2.53E+03		5.87E+00	1.00E+01			3.06E+02	4.95E+02
B5-2	7440-09-7	SW6010B	9/2/2009	-14.5	-15	1.11E+03		5.59E+00	1.00E+01				
B6-1	7440-09-7	SW6010B	9/2/2009	-0.5	-1	1.17E+03		5.43E+00	1.00E+01			2.00E+02	4.44E+02
B6-2	7440-09-7	SW6010B	9/2/2009	-14.5	-15	1.03E+03		5.59E+00	1.00E+01				
B7 0-1'	7440-09-7	SW6010B	11/11/2009	0	-1	4.36E+02		5.23E+00	2.50E+01			2.00E+02	4.44E+02
B7 14-15'	7440-09-7	SW6010B	11/11/2009	-14	-15	4.65E+02		5.39E+00	2.50E+01				
B8-1	7440-09-7	SW6010B	9/2/2009	-1	-1.5	7.96E+02		5.53E+00	1.00E+01			3.06E+02	4.95E+02
B8-2	7440-09-7	SW6010B	9/2/2009	-14	-15	6.93E+02		5.38E+00	1.00E+01				
B9 0-1'	7440-09-7	SW6010B	11/11/2009	0	-1	4.28E+02		5.52E+00	2.50E+01			2.00E+02	4.44E+02
B9 14-15'	7440-09-7	SW6010B	11/11/2009	-14	-15	5.13E+02		5.36E+00	2.50E+01				

Pyrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	129-00-0	SW8270C	8/31/2009	0	-1	9.30E-02	U	9.30E-02	3.30E-01	3.07E+02	2.67E+04		
B1 0-1'	129-00-0	SW8270C	11/11/2009	0	-1	9.62E-02	U	9.62E-02	3.30E-01	3.07E+02	2.67E+04		
B1 14-15'	129-00-0	SW8270C	11/11/2009	-14	-15	8.66E-02	U	8.66E-02	3.30E-01	3.07E+02	2.67E+04		
B10-1	129-00-0	SW8270C	9/2/2009	-2	-3	1.11E-01	U	1.11E-01	3.30E-01	3.07E+02	2.67E+04		
B10-2	129-00-0	SW8270C	9/2/2009	-13	-14	9.45E-02	U	9.45E-02	3.30E-01	3.07E+02	2.67E+04		
B2 1-1.5	129-00-0	SW8270C	9/1/2009	-1	-1.5	8.79E-02	U	8.79E-02	3.30E-01	3.07E+02	2.67E+04		
B2 21-22.5	129-00-0	SW8270C	9/1/2009	-21	-22.5	1.04E-01	U	1.04E-01	3.30E-01	3.07E+02	2.67E+04		
B3 12-13	129-00-0	SW8270C	8/31/2009	-12	-13	8.37E-02	U	8.37E-02	3.30E-01	3.07E+02	2.67E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Pyrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B3 2-3	129-00-0	SW8270C	8/31/2009	-2	-3	9.78E-02	U	9.78E-02	3.30E-01	3.07E+02	2.67E+04		
B4 14-14.5	129-00-0	SW8270C	9/1/2009	-14	-14.5	9.39E-02	U	9.39E-02	3.30E-01	3.07E+02	2.67E+04		
B4 2-2.5	129-00-0	SW8270C	9/1/2009	-2	-2.5	1.01E-01	U	1.01E-01	3.30E-01	3.07E+02	2.67E+04		
B5-1	129-00-0	SW8270C	9/2/2009	-1	-1.5	9.98E-02	U	9.98E-02	3.30E-01	3.07E+02	2.67E+04		
B5-2	129-00-0	SW8270C	9/2/2009	-14.5	-15	9.50E-02	U	9.50E-02	3.30E-01	3.07E+02	2.67E+04		
B6-1	129-00-0	SW8270C	9/2/2009	-0.5	-1	9.22E-02	U	9.22E-02	3.30E-01	3.07E+02	2.67E+04		
B6-2	129-00-0	SW8270C	9/2/2009	-14.5	-15	9.50E-02	U	9.50E-02	3.30E-01	3.07E+02	2.67E+04		
B7 0-1'	129-00-0	SW8270C	11/11/2009	0	-1	8.88E-02	U	8.88E-02	3.30E-01	3.07E+02	2.67E+04		
B7 14-15'	129-00-0	SW8270C	11/11/2009	-14	-15	9.15E-02	U	9.15E-02	3.30E-01	3.07E+02	2.67E+04		
B8-1	129-00-0	SW8270C	9/2/2009	-1	-1.5	9.40E-02	U	9.40E-02	3.30E-01	3.07E+02	2.67E+04		
B8-2	129-00-0	SW8270C	9/2/2009	-14	-15	9.14E-02	U	9.14E-02	3.30E-01	3.07E+02	2.67E+04		
B9 0-1'	129-00-0	SW8270C	11/11/2009	0	-1	9.38E-02	U	9.38E-02	3.30E-01	3.07E+02	2.67E+04		
B9 14-15'	129-00-0	SW8270C	11/11/2009	-14	-15	9.11E-02	U	9.11E-02	3.30E-01	3.07E+02	2.67E+04		

Pyridine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	110-86-1	SW8270C	8/31/2009	0	-1	1.84E-01	U	1.84E-01	3.30E-01	1.02E+01	1.18E+01		
B1 0-1'	110-86-1	SW8270C	11/11/2009	0	-1	1.90E-01	U	1.90E-01	3.30E-01	1.02E+01	1.18E+01		
B1 14-15'	110-86-1	SW8270C	11/11/2009	-14	-15	1.71E-01	U	1.71E-01	3.30E-01	1.02E+01	1.18E+01		
B10-1	110-86-1	SW8270C	9/2/2009	-2	-3	2.19E-01	U	2.19E-01	3.30E-01	1.02E+01	1.18E+01		
B10-2	110-86-1	SW8270C	9/2/2009	-13	-14	1.87E-01	U	1.87E-01	3.30E-01	1.02E+01	1.18E+01		
B2 1-1.5	110-86-1	SW8270C	9/1/2009	-1	-1.5	1.74E-01	U	1.74E-01	3.30E-01	1.02E+01	1.18E+01		
B2 21-22.5	110-86-1	SW8270C	9/1/2009	-21	-22.5	2.05E-01	U	2.05E-01	3.30E-01	1.02E+01	1.18E+01		
B3 12-13	110-86-1	SW8270C	8/31/2009	-12	-13	1.65E-01	U	1.65E-01	3.30E-01	1.02E+01	1.18E+01		
B3 2-3	110-86-1	SW8270C	8/31/2009	-2	-3	1.93E-01	U	1.93E-01	3.30E-01	1.02E+01	1.18E+01		
B4 14-14.5	110-86-1	SW8270C	9/1/2009	-14	-14.5	1.85E-01	U	1.85E-01	3.30E-01	1.02E+01	1.18E+01		
B4 2-2.5	110-86-1	SW8270C	9/1/2009	-2	-2.5	2.00E-01	U	2.00E-01	3.30E-01	1.02E+01	1.18E+01		
B5-1	110-86-1	SW8270C	9/2/2009	-1	-1.5	1.97E-01	U	1.97E-01	3.30E-01	1.02E+01	1.18E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Pyridine

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B5-2	110-86-1	SW8270C	9/2/2009	-14.5	-15	1.88E-01	U	1.88E-01	3.30E-01	1.02E+01	1.18E+01		
B6-1	110-86-1	SW8270C	9/2/2009	-0.5	-1	1.82E-01	U	1.82E-01	3.30E-01	1.02E+01	1.18E+01		
B6-2	110-86-1	SW8270C	9/2/2009	-14.5	-15	1.88E-01	U	1.88E-01	3.30E-01	1.02E+01	1.18E+01		
B7 0-1'	110-86-1	SW8270C	11/11/2009	0	-1	1.75E-01	U	1.75E-01	3.30E-01	1.02E+01	1.18E+01		
B7 14-15'	110-86-1	SW8270C	11/11/2009	-14	-15	1.81E-01	U	1.81E-01	3.30E-01	1.02E+01	1.18E+01		
B8-1	110-86-1	SW8270C	9/2/2009	-1	-1.5	1.86E-01	U	1.86E-01	3.30E-01	1.02E+01	1.18E+01		
B8-2	110-86-1	SW8270C	9/2/2009	-14	-15	1.81E-01	U	1.81E-01	3.30E-01	1.02E+01	1.18E+01		
B9 0-1'	110-86-1	SW8270C	11/11/2009	0	-1	1.85E-01	U	1.85E-01	3.30E-01	1.02E+01	1.18E+01		
B9 14-15'	110-86-1	SW8270C	11/11/2009	-14	-15	1.80E-01	U	1.80E-01	3.30E-01	1.02E+01	1.18E+01		

RDX

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 1-2 FT	121-82-4	SW-846 8	8/31/2009	-1	-2	9.21E-01	U	9.21E-01	1.00E-01	2.60E+00	5.36E+01		
B1 13-14	121-82-4	SW-846 8	8/31/2009	-13	-14	9.21E-01	U	9.21E-01	1.00E-01	2.60E+00	5.36E+01		
B10 1 - 2	121-82-4	SW-846 8	9/2/2009	-1	-2	1.09E+00	U	1.09E+00	1.00E-01	2.60E+00	5.36E+01		
B10 11.5 - 1	121-82-4	SW-846 8	9/2/2009	-11.5	-12	1.13E+00	U	1.13E+00	1.00E-01	2.60E+00	5.36E+01		
B2 0.5-1.0	121-82-4	SW-846 8	9/1/2009	-0.5	-1	9.21E-01	U	9.21E-01	1.00E-01	2.60E+00	5.36E+01		
B2 21-21.5	121-82-4	SW-846 8	9/1/2009	-21	-21.5	9.21E-01	U	9.21E-01	1.00E-01	2.60E+00	5.36E+01		
B3 0-1	121-82-4	SW-846 8	8/31/2009	0	-1	9.21E-01	U	9.21E-01	1.00E-01	2.60E+00	5.36E+01		
B3 14-15	121-82-4	SW-846 8	8/31/2009	-14	-15	9.21E-01	U	9.21E-01	1.00E-01	2.60E+00	5.36E+01		
B4 13-14	121-82-4	SW-846 8	9/1/2009	-13	-14	9.21E-01	U	9.21E-01	1.00E-01	2.60E+00	5.36E+01		
B4 3-3.5	121-82-4	SW-846 8	9/1/2009	-3	-3.5	9.21E-01	U	9.21E-01	1.00E-01	2.60E+00	5.36E+01		
B5 14 - 14.	121-82-4	SW-846 8	9/2/2009	-14	-14.5	1.08E+00	U	1.08E+00	1.00E-01	2.60E+00	5.36E+01		
B5 0.5 - 1 M	121-82-4	SW-846 8	9/2/2009	-0.5	-1	1.12E+00	U	1.12E+00	1.00E-01	2.60E+00	5.36E+01		
B6 1 - 1.5	121-82-4	SW-846 8	9/2/2009	-1	-1.5	1.08E+00	U	1.08E+00	1.00E-01	2.60E+00	5.36E+01		
B6 14 - 14.5	121-82-4	SW-846 8	9/2/2009	-14	-14.5	1.06E+00	U	1.06E+00	1.00E-01	2.60E+00	5.36E+01		
B7 0-1 FT	121-82-4	SW-846 8	8/31/2009	0	-1	9.21E-01	U	9.21E-01	1.00E-01	2.60E+00	5.36E+01		
B7 14-15	121-82-4	SW-846 8	8/31/2009	-14	-15	9.21E-01	U	9.21E-01	1.00E-01	2.60E+00	5.36E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

RDX

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8 13 - 14	121-82-4	SW-846 8	9/2/2009	-13	-14	1.05E+00	U	1.05E+00	1.00E-01	2.60E+00	5.36E+01		
B8 2.75 - 3	121-82-4	SW-846 8	9/2/2009	-2.75	-3	1.16E+00	U	1.16E+00	1.00E-01	2.60E+00	5.36E+01		
B9 14-15	121-82-4	SW-846 8	8/31/2009	-14	-15	9.21E-01	U	9.21E-01	1.00E-01	2.60E+00	5.36E+01		
B9-0-2 FT	121-82-4	SW-846 8	8/31/2009	0	-2	9.21E-01	U	9.21E-01	1.00E-01	2.60E+00	5.36E+01		

sec-Butylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	135-98-8	SW8260B	8/31/2009	0	-1	1.55E-03	U	1.55E-03	5.00E-03	4.09E+02	5.41E+03		
B1 0-1'	135-98-8	SW8260B	11/11/2009	0	-1	2.31E-03	U	2.31E-03	5.00E-03	4.09E+02	5.41E+03		
B1 14-15'	135-98-8	SW8260B	11/11/2009	-14	-15	1.69E-03	U	1.69E-03	5.00E-03	4.09E+02	5.41E+03		
B10-1	135-98-8	SW8260B	9/2/2009	-2	-3	1.84E-03	U	1.84E-03	5.00E-03	4.09E+02	5.41E+03		
B10-2	135-98-8	SW8260B	9/2/2009	-13	-14	1.57E-03	U	1.57E-03	5.00E-03	4.09E+02	5.41E+03		
B2 1-1.5	135-98-8	SW8260B	9/1/2009	-1	-1.5	1.46E-03	U	1.46E-03	5.00E-03	4.09E+02	5.41E+03		
B2 21-22.5	135-98-8	SW8260B	9/1/2009	-21	-22.5	1.73E-03	U	1.73E-03	5.00E-03	4.09E+02	5.41E+03		
B3 12-13	135-98-8	SW8260B	8/31/2009	-12	-13	1.39E-03	U	1.39E-03	5.00E-03	4.09E+02	5.41E+03		
B3 2-3	135-98-8	SW8260B	8/31/2009	-2	-3	1.63E-03	U	1.63E-03	5.00E-03	4.09E+02	5.41E+03		
B4 14.5-15	135-98-8	SW8260B	9/1/2009	-14.5	-15	1.58E-03	U	1.58E-03	5.00E-03	4.09E+02	5.41E+03		
B4 2-2.5	135-98-8	SW8260B	9/1/2009	-2	-2.5	1.69E-03	U	1.69E-03	5.00E-03	4.09E+02	5.41E+03		
B5-1	135-98-8	SW8260B	9/2/2009	-1	-1.5	1.66E-03	U	1.66E-03	5.00E-03	4.09E+02	5.41E+03		
B5-2	135-98-8	SW8260B	9/2/2009	-14.5	-15	1.58E-03	U	1.58E-03	5.00E-03	4.09E+02	5.41E+03		
B6-1	135-98-8	SW8260B	9/2/2009	-0.5	-1	1.53E-03	U	1.53E-03	5.00E-03	4.09E+02	5.41E+03		
B6-2	135-98-8	SW8260B	9/2/2009	-14.5	-15	1.58E-03	U	1.58E-03	5.00E-03	4.09E+02	5.41E+03		
B7 0-1'	135-98-8	SW8260B	11/11/2009	0	-1	1.82E-03	U	1.82E-03	5.00E-03	4.09E+02	5.41E+03		
B7 14-15'	135-98-8	SW8260B	11/11/2009	-14	-15	1.99E-03	U	1.99E-03	5.00E-03	4.09E+02	5.41E+03		
B8-1	135-98-8	SW8260B	9/2/2009	-1	-1.5	1.56E-03	U	1.56E-03	5.00E-03	4.09E+02	5.41E+03		
B8-2	135-98-8	SW8260B	9/2/2009	-14	-15	1.52E-03	U	1.52E-03	5.00E-03	4.09E+02	5.41E+03		
B8-3	135-98-8	SW8260B	9/2/2009	-8	-8.5	1.65E-03	U	1.65E-03	5.00E-03	4.09E+02	5.41E+03		
B9 0-1'	135-98-8	SW8260B	11/11/2009	0	-1	2.15E-03	U	2.15E-03	5.00E-03	4.09E+02	5.41E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

sec-Butylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B9 14-15'	135-98-8	SW8260B	11/11/2009	-14	-15	1.96E-03	U	1.96E-03	5.00E-03	4.09E+02	5.41E+03		

Selenium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7782-49-2	SW6010B	8/31/2009	0	-1	1.15E+00	U	1.15E+00	2.00E+00	5.00E+00	9.29E+03		
B1 0-1'	7782-49-2	SW6010B	11/11/2009	0	-1	9.38E-01	U	9.38E-01	2.00E+00	5.00E+00	9.29E+03		
B1 14-15'	7782-49-2	SW6010B	11/11/2009	-14	-15	8.44E-01	U	8.44E-01	2.00E+00	5.00E+00	9.29E+03		
B10-1	7782-49-2	SW6010B	9/2/2009	-2	-3	1.37E+00	U	1.37E+00	2.00E+00	5.00E+00	9.29E+03		
B10-2	7782-49-2	SW6010B	9/2/2009	-13	-14	1.17E+00	U	1.17E+00	2.00E+00	5.00E+00	9.29E+03		
B2 1-1.5	7782-49-2	SW6010B	9/1/2009	-1	-1.5	1.09E+00	U	1.09E+00	2.00E+00	5.00E+00	9.29E+03		
B2 21-22.5	7782-49-2	SW6010B	9/1/2009	-21	-22.5	1.29E+00	U	1.29E+00	2.00E+00	5.00E+00	9.29E+03		
B3 12-13	7782-49-2	SW6010B	8/31/2009	-12	-13	1.04E+00	U	1.04E+00	2.00E+00	5.00E+00	9.29E+03		
B3 2-3	7782-49-2	SW6010B	8/31/2009	-2	-3	1.21E+00	U	1.21E+00	2.00E+00	5.00E+00	9.29E+03		
B4 14-14.5	7782-49-2	SW6010B	9/1/2009	-14	-14.5	1.16E+00	U	1.16E+00	2.00E+00	5.00E+00	9.29E+03		
B4 2-2.5	7782-49-2	SW6010B	9/1/2009	-2	-2.5	1.25E+00	U	1.25E+00	2.00E+00	5.00E+00	9.29E+03		
B5-1	7782-49-2	SW6010B	9/2/2009	-1	-1.5	1.23E+00	U	1.23E+00	2.00E+00	5.00E+00	9.29E+03		
B5-2	7782-49-2	SW6010B	9/2/2009	-14.5	-15	1.18E+00	U	1.18E+00	2.00E+00	5.00E+00	9.29E+03		
B6-1	7782-49-2	SW6010B	9/2/2009	-0.5	-1	1.14E+00	U	1.14E+00	2.00E+00	5.00E+00	9.29E+03		
B6-2	7782-49-2	SW6010B	9/2/2009	-14.5	-15	1.18E+00	U	1.18E+00	2.00E+00	5.00E+00	9.29E+03		
B7 0-1'	7782-49-2	SW6010B	11/11/2009	0	-1	8.66E-01	U	8.66E-01	2.00E+00	5.00E+00	9.29E+03		
B7 14-15'	7782-49-2	SW6010B	11/11/2009	-14	-15	8.92E-01	U	8.92E-01	2.00E+00	5.00E+00	9.29E+03		
B8-1	7782-49-2	SW6010B	9/2/2009	-1	-1.5	1.16E+00	U	1.16E+00	2.00E+00	5.00E+00	9.29E+03		
B8-2	7782-49-2	SW6010B	9/2/2009	-14	-15	1.13E+00	U	1.13E+00	2.00E+00	5.00E+00	9.29E+03		
B9 0-1'	7782-49-2	SW6010B	11/11/2009	0	-1	9.14E-01	U	9.14E-01	2.00E+00	5.00E+00	9.29E+03		
B9 14-15'	7782-49-2	SW6010B	11/11/2009	-14	-15	8.88E-01	U	8.88E-01	2.00E+00	5.00E+00	9.29E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Silver

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-22-4	SW6010B	8/31/2009	0	-1	5.58E-01	U	5.58E-01	1.00E+00	5.11E+01	2.92E+03		
B1 0-1'	7440-22-4	SW6010B	11/11/2009	0	-1	5.77E-01	U	5.77E-01	1.00E+00	5.11E+01	2.92E+03		
B1 14-15'	7440-22-4	SW6010B	11/11/2009	-14	-15	5.19E-01	U	5.19E-01	1.00E+00	5.11E+01	2.92E+03		
B10-1	7440-22-4	SW6010B	9/2/2009	-2	-3	6.66E-01	U	6.66E-01	1.00E+00	5.11E+01	2.92E+03		
B10-2	7440-22-4	SW6010B	9/2/2009	-13	-14	5.67E-01	U	5.67E-01	1.00E+00	5.11E+01	2.92E+03		
B2 1-1.5	7440-22-4	SW6010B	9/1/2009	-1	-1.5	5.27E-01	U	5.27E-01	1.00E+00	5.11E+01	2.92E+03		
B2 21-22.5	7440-22-4	SW6010B	9/1/2009	-21	-22.5	6.24E-01	U	6.24E-01	1.00E+00	5.11E+01	2.92E+03		
B3 12-13	7440-22-4	SW6010B	8/31/2009	-12	-13	5.02E-01	U	5.02E-01	1.00E+00	5.11E+01	2.92E+03		
B3 2-3	7440-22-4	SW6010B	8/31/2009	-2	-3	5.87E-01	U	5.87E-01	1.00E+00	5.11E+01	2.92E+03		
B4 14-14.5	7440-22-4	SW6010B	9/1/2009	-14	-14.5	5.63E-01	U	5.63E-01	1.00E+00	5.11E+01	2.92E+03		
B4 2-2.5	7440-22-4	SW6010B	9/1/2009	-2	-2.5	6.08E-01	U	6.08E-01	1.00E+00	5.11E+01	2.92E+03		
B5-1	7440-22-4	SW6010B	9/2/2009	-1	-1.5	5.99E-01	U	5.99E-01	1.00E+00	5.11E+01	2.92E+03		
B5-2	7440-22-4	SW6010B	9/2/2009	-14.5	-15	5.70E-01	U	5.70E-01	1.00E+00	5.11E+01	2.92E+03		
B6-1	7440-22-4	SW6010B	9/2/2009	-0.5	-1	5.53E-01	U	5.53E-01	1.00E+00	5.11E+01	2.92E+03		
B6-2	7440-22-4	SW6010B	9/2/2009	-14.5	-15	5.70E-01	U	5.70E-01	1.00E+00	5.11E+01	2.92E+03		
B7 0-1'	7440-22-4	SW6010B	11/11/2009	0	-1	5.33E-01	U	5.33E-01	1.00E+00	5.11E+01	2.92E+03		
B7 14-15'	7440-22-4	SW6010B	11/11/2009	-14	-15	5.49E-01	U	5.49E-01	1.00E+00	5.11E+01	2.92E+03		
B8-1	7440-22-4	SW6010B	9/2/2009	-1	-1.5	5.64E-01	U	5.64E-01	1.00E+00	5.11E+01	2.92E+03		
B8-2	7440-22-4	SW6010B	9/2/2009	-14	-15	5.49E-01	U	5.49E-01	1.00E+00	5.11E+01	2.92E+03		
B9 0-1'	7440-22-4	SW6010B	11/11/2009	0	-1	5.63E-01	U	5.63E-01	1.00E+00	5.11E+01	2.92E+03		
B9 14-15'	7440-22-4	SW6010B	11/11/2009	-14	-15	5.47E-01	U	5.47E-01	1.00E+00	5.11E+01	2.92E+03		

Sodium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-23-5	SW6010B	8/31/2009	0	-1	6.85E+01		8.72E-01	2.00E+00			2.43E+01	1.07E+02
B1 0-1'	7440-23-5	SW6010B	11/11/2009	0	-1	2.27E+01		2.52E+00	5.00E+00			2.43E+01	1.07E+02
B1 14-15'	7440-23-5	SW6010B	11/11/2009	-14	-15	4.81E+02		2.27E+00	5.00E+00				
B10-1	7440-23-5	SW6010B	9/2/2009	-2	-3	3.08E+02		1.04E+00	2.00E+00			7.14E+01	1.91E+02

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Sodium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-2	7440-23-5	SW6010B	9/2/2009	-13	-14	6.39E+02		8.85E-01	2.00E+00				
B2 1-1.5	7440-23-5	SW6010B	9/1/2009	-1	-1.5	9.45E+01		8.24E-01	2.00E+00			7.14E+01	1.91E+02
B2 21-22.5	7440-23-5	SW6010B	9/1/2009	-21	-22.5	9.17E+02		9.75E-01	2.00E+00				
B3 12-13	7440-23-5	SW6010B	8/31/2009	-12	-13	2.52E+02		7.84E-01	2.00E+00				
B3 2-3	7440-23-5	SW6010B	8/31/2009	-2	-3	1.70E+02		9.17E-01	2.00E+00			7.14E+01	1.91E+02
B4 14-14.5	7440-23-5	SW6010B	9/1/2009	-14	-14.5	7.24E+02		8.80E-01	2.00E+00				
B4 2-2.5	7440-23-5	SW6010B	9/1/2009	-2	-2.5	2.21E+02		9.51E-01	2.00E+00			7.14E+01	1.91E+02
B5-1	7440-23-5	SW6010B	9/2/2009	-1	-1.5	2.92E+02		9.35E-01	2.00E+00			7.14E+01	1.91E+02
B5-2	7440-23-5	SW6010B	9/2/2009	-14.5	-15	7.58E+02		8.91E-01	2.00E+00				
B6-1	7440-23-5	SW6010B	9/2/2009	-0.5	-1	1.02E+02		8.64E-01	2.00E+00			2.43E+01	1.07E+02
B6-2	7440-23-5	SW6010B	9/2/2009	-14.5	-15	5.43E+02		8.91E-01	2.00E+00				
B7 0-1'	7440-23-5	SW6010B	11/11/2009	0	-1	4.04E+02		2.33E+00	5.00E+00			2.43E+01	1.07E+02
B7 14-15'	7440-23-5	SW6010B	11/11/2009	-14	-15	2.40E+00	U	2.40E+00	5.00E+00				
B8-1	7440-23-5	SW6010B	9/2/2009	-1	-1.5	8.81E-01	U	8.81E-01	2.00E+00			7.14E+01	1.91E+02
B8-2	7440-23-5	SW6010B	9/2/2009	-14	-15	4.37E+02		8.57E-01	2.00E+00				
B9 0-1'	7440-23-5	SW6010B	11/11/2009	0	-1	2.46E+00	U	2.46E+00	5.00E+00			2.43E+01	1.07E+02
B9 14-15'	7440-23-5	SW6010B	11/11/2009	-14	-15	4.32E+02		2.39E+00	5.00E+00				

Strontium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-24-6	SW6010B	8/31/2009	0	-1	5.00E-01	U	5.00E-01	1.00E+00	6.13E+03	8.18E+05		
B1 0-1'	7440-24-6	SW6010B	11/11/2009	0	-1	5.17E-01	U	5.17E-01	1.00E+00	6.13E+03	8.18E+05		
B1 14-15'	7440-24-6	SW6010B	11/11/2009	-14	-15	4.65E-01	U	4.65E-01	1.00E+00	6.13E+03	8.18E+05		
B10-1	7440-24-6	SW6010B	9/2/2009	-2	-3	5.96E-01	U	5.96E-01	1.00E+00	6.13E+03	8.18E+05		
B10-2	7440-24-6	SW6010B	9/2/2009	-13	-14	5.08E-01	U	5.08E-01	1.00E+00	6.13E+03	8.18E+05		
B2 1-1.5	7440-24-6	SW6010B	9/1/2009	-1	-1.5	4.72E-01	U	4.73E-01	1.00E+00	6.13E+03	8.18E+05		
B2 21-22.5	7440-24-6	SW6010B	9/1/2009	-21	-22.5	5.59E-01	U	5.59E-01	1.00E+00	6.13E+03	8.18E+05		
B5-1	7440-24-6	SW6010B	9/2/2009	-1	-1.5	5.36E-01	U	5.36E-01	1.00E+00	6.13E+03	8.18E+05		

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Strontium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B5-2	7440-24-6	SW6010B	9/2/2009	-14.5	-15	5.11E-01	U	5.11E-01	1.00E+00	6.13E+03	8.18E+05		
B6-1	7440-24-6	SW6010B	9/2/2009	-0.5	-1	4.95E-01	U	4.95E-01	1.00E+00	6.13E+03	8.18E+05		
B6-2	7440-24-6	SW6010B	9/2/2009	-14.5	-15	5.11E-01	U	5.11E-01	1.00E+00	6.13E+03	8.18E+05		
B7 0-1'	7440-24-6	SW6010B	11/11/2009	0	-1	4.77E-01	U	4.77E-01	1.00E+00	6.13E+03	8.18E+05		
B7 14-15'	7440-24-6	SW6010B	11/11/2009	-14	-15	4.92E-01	U	4.92E-01	1.00E+00	6.13E+03	8.18E+05		
B8-1	7440-24-6	SW6010B	9/2/2009	-1	-1.5	5.05E-01	U	5.05E-01	1.00E+00	6.13E+03	8.18E+05		
B8-2	7440-24-6	SW6010B	9/2/2009	-14	-15	4.91E-01	U	4.91E-01	1.00E+00	6.13E+03	8.18E+05		
B9 0-1'	7440-24-6	SW6010B	11/11/2009	0	-1	5.04E-01	U	5.04E-01	1.00E+00	6.13E+03	8.18E+05		
B9 14-15'	7440-24-6	SW6010B	11/11/2009	-14	-15	4.90E-01	U	4.90E-01	1.00E+00	6.13E+03	8.18E+05		

Styrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	100-42-5	SW8260B	8/31/2009	0	-1	9.71E-04	U	9.71E-04	5.00E-03	1.00E+01	2.28E+04		
B1 0-1'	100-42-5	SW8260B	11/11/2009	0	-1	1.44E-03	U	1.44E-03	5.00E-03	1.00E+01	2.28E+04		
B1 14-15'	100-42-5	SW8260B	11/11/2009	-14	-15	1.06E-03	U	1.06E-03	5.00E-03	1.00E+01	2.28E+04		
B10-1	100-42-5	SW8260B	9/2/2009	-2	-3	1.16E-03	U	1.16E-03	5.00E-03	1.00E+01	2.28E+04		
B10-2	100-42-5	SW8260B	9/2/2009	-13	-14	9.86E-04	U	9.86E-04	5.00E-03	1.00E+01	2.28E+04		
B2 1-1.5	100-42-5	SW8260B	9/1/2009	-1	-1.5	9.18E-04	U	9.18E-04	5.00E-03	1.00E+01	2.28E+04		
B2 21-22.5	100-42-5	SW8260B	9/1/2009	-21	-22.5	1.09E-03	U	1.09E-03	5.00E-03	1.00E+01	2.28E+04		
B3 12-13	100-42-5	SW8260B	8/31/2009	-12	-13	8.73E-04	U	8.73E-04	5.00E-03	1.00E+01	2.28E+04		
B3 2-3	100-42-5	SW8260B	8/31/2009	-2	-3	1.02E-03	U	1.02E-03	5.00E-03	1.00E+01	2.28E+04		
B4 14.5-15	100-42-5	SW8260B	9/1/2009	-14.5	-15	9.92E-04	U	9.92E-04	5.00E-03	1.00E+01	2.28E+04		
B4 2-2.5	100-42-5	SW8260B	9/1/2009	-2	-2.5	1.06E-03	U	1.06E-03	5.00E-03	1.00E+01	2.28E+04		
B5-1	100-42-5	SW8260B	9/2/2009	-1	-1.5	1.04E-03	U	1.04E-03	5.00E-03	1.00E+01	2.28E+04		
B5-2	100-42-5	SW8260B	9/2/2009	-14.5	-15	9.92E-04	U	9.92E-04	5.00E-03	1.00E+01	2.28E+04		
B6-1	100-42-5	SW8260B	9/2/2009	-0.5	-1	9.62E-04	U	9.62E-04	5.00E-03	1.00E+01	2.28E+04		
B6-2	100-42-5	SW8260B	9/2/2009	-14.5	-15	9.92E-04	U	9.92E-04	5.00E-03	1.00E+01	2.28E+04		
B7 0-1'	100-42-5	SW8260B	11/11/2009	0	-1	1.14E-03	U	1.14E-03	5.00E-03	1.00E+01	2.28E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Styrene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 14-15'	100-42-5	SW8260B	11/11/2009	-14	-15	1.25E-03	U	1.25E-03	5.00E-03	1.00E+01	2.28E+04		
B8-1	100-42-5	SW8260B	9/2/2009	-1	-1.5	9.81E-04	U	9.81E-04	5.00E-03	1.00E+01	2.28E+04		
B8-2	100-42-5	SW8260B	9/2/2009	-14	-15	9.54E-04	U	9.54E-04	5.00E-03	1.00E+01	2.28E+04		
B8-3	100-42-5	SW8260B	9/2/2009	-8	-8.5	1.03E-03	U	1.03E-03	5.00E-03	1.00E+01	2.28E+04		
B9 0-1'	100-42-5	SW8260B	11/11/2009	0	-1	1.35E-03	U	1.35E-03	5.00E-03	1.00E+01	2.28E+04		
B9 14-15'	100-42-5	SW8260B	11/11/2009	-14	-15	1.23E-03	U	1.23E-03	5.00E-03	1.00E+01	2.28E+04		

tert-Butylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	98-06-6	SW8260B	8/31/2009	0	-1	1.22E-03	U	1.22E-03	5.00E-03	4.09E+02	4.53E+03		
B1 0-1'	98-06-6	SW8260B	11/11/2009	0	-1	1.81E-03	U	1.81E-03	5.00E-03	4.09E+02	4.53E+03		
B1 14-15'	98-06-6	SW8260B	11/11/2009	-14	-15	1.33E-03	U	1.33E-03	5.00E-03	4.09E+02	4.53E+03		
B10-1	98-06-6	SW8260B	9/2/2009	-2	-3	1.46E-03	U	1.46E-03	5.00E-03	4.09E+02	4.53E+03		
B10-2	98-06-6	SW8260B	9/2/2009	-13	-14	1.24E-03	U	1.24E-03	5.00E-03	4.09E+02	4.53E+03		
B2 1-1.5	98-06-6	SW8260B	9/1/2009	-1	-1.5	1.15E-03	U	1.15E-03	5.00E-03	4.09E+02	4.53E+03		
B2 21-22.5	98-06-6	SW8260B	9/1/2009	-21	-22.5	1.37E-03	U	1.37E-03	5.00E-03	4.09E+02	4.53E+03		
B3 12-13	98-06-6	SW8260B	8/31/2009	-12	-13	1.10E-03	U	1.10E-03	5.00E-03	4.09E+02	4.53E+03		
B3 2-3	98-06-6	SW8260B	8/31/2009	-2	-3	1.28E-03	U	1.28E-03	5.00E-03	4.09E+02	4.53E+03		
B4 14.5-15	98-06-6	SW8260B	9/1/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	4.09E+02	4.53E+03		
B4 2-2.5	98-06-6	SW8260B	9/1/2009	-2	-2.5	1.33E-03	U	1.33E-03	5.00E-03	4.09E+02	4.53E+03		
B5-1	98-06-6	SW8260B	9/2/2009	-1	-1.5	1.31E-03	U	1.31E-03	5.00E-03	4.09E+02	4.53E+03		
B5-2	98-06-6	SW8260B	9/2/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	4.09E+02	4.53E+03		
B6-1	98-06-6	SW8260B	9/2/2009	-0.5	-1	1.21E-03	U	1.21E-03	5.00E-03	4.09E+02	4.53E+03		
B6-2	98-06-6	SW8260B	9/2/2009	-14.5	-15	1.25E-03	U	1.25E-03	5.00E-03	4.09E+02	4.53E+03		
B7 0-1'	98-06-6	SW8260B	11/11/2009	0	-1	1.44E-03	U	1.44E-03	5.00E-03	4.09E+02	4.53E+03		
B7 14-15'	98-06-6	SW8260B	11/11/2009	-14	-15	1.57E-03	U	1.57E-03	5.00E-03	4.09E+02	4.53E+03		
B8-1	98-06-6	SW8260B	9/2/2009	-1	-1.5	1.23E-03	U	1.23E-03	5.00E-03	4.09E+02	4.53E+03		
B8-2	98-06-6	SW8260B	9/2/2009	-14	-15	1.20E-03	U	1.20E-03	5.00E-03	4.09E+02	4.53E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

tert-Butylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8-3	98-06-6	SW8260B	9/2/2009	-8	-8.5	1.30E-03	U	1.30E-03	5.00E-03	4.09E+02	4.53E+03		
B9 0-1'	98-06-6	SW8260B	11/11/2009	0	-1	1.69E-03	U	1.69E-03	5.00E-03	4.09E+02	4.53E+03		
B9 14-15'	98-06-6	SW8260B	11/11/2009	-14	-15	1.56E-03	U	1.56E-03	5.00E-03	4.09E+02	4.53E+03		

Tetrachloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	127-18-4	SW8260B	8/31/2009	0	-1	8.59E-04	U	8.59E-04	5.00E-03	5.00E-01	1.68E+01		
B1 0-1'	127-18-4	SW8260B	11/11/2009	0	-1	1.29E-03	U	1.29E-03	5.00E-03	5.00E-01	1.68E+01		
B1 14-15'	127-18-4	SW8260B	11/11/2009	-14	-15	9.37E-04	U	9.37E-04	5.00E-03	5.00E-01	1.68E+01		
B10-1	127-18-4	SW8260B	9/2/2009	-2	-3	1.03E-03	U	1.02E-03	5.00E-03	5.00E-01	1.68E+01		
B10-2	127-18-4	SW8260B	9/2/2009	-13	-14	8.73E-04	U	8.72E-04	5.00E-03	5.00E-01	1.68E+01		
B2 1-1.5	127-18-4	SW8260B	9/1/2009	-1	-1.5	8.12E-04	U	8.12E-04	5.00E-03	5.00E-01	1.68E+01		
B2 21-22.5	127-18-4	SW8260B	9/1/2009	-21	-22.5	9.61E-04	U	9.61E-04	5.00E-03	5.00E-01	1.68E+01		
B3 12-13	127-18-4	SW8260B	8/31/2009	-12	-13	7.73E-04	U	7.73E-04	5.00E-03	5.00E-01	1.68E+01		
B3 2-3	127-18-4	SW8260B	8/31/2009	-2	-3	9.03E-04	U	9.03E-04	5.00E-03	5.00E-01	1.68E+01		
B4 14.5-15	127-18-4	SW8260B	9/1/2009	-14.5	-15	8.78E-04	U	8.78E-04	5.00E-03	5.00E-01	1.68E+01		
B4 2-2.5	127-18-4	SW8260B	9/1/2009	-2	-2.5	9.37E-04	U	9.37E-04	5.00E-03	5.00E-01	1.68E+01		
B5-1	127-18-4	SW8260B	9/2/2009	-1	-1.5	9.21E-04	U	9.21E-04	5.00E-03	5.00E-01	1.68E+01		
B5-2	127-18-4	SW8260B	9/2/2009	-14.5	-15	8.78E-04	U	8.78E-04	5.00E-03	5.00E-01	1.68E+01		
B6-1	127-18-4	SW8260B	9/2/2009	-0.5	-1	8.51E-04	U	8.51E-04	5.00E-03	5.00E-01	1.68E+01		
B6-2	127-18-4	SW8260B	9/2/2009	-14.5	-15	8.78E-04	U	8.78E-04	5.00E-03	5.00E-01	1.68E+01		
B7 0-1'	127-18-4	SW8260B	11/11/2009	0	-1	1.01E-03	U	1.01E-03	5.00E-03	5.00E-01	1.68E+01		
B7 14-15'	127-18-4	SW8260B	11/11/2009	-14	-15	1.11E-03	U	1.11E-03	5.00E-03	5.00E-01	1.68E+01		
B8-1	127-18-4	SW8260B	9/2/2009	-1	-1.5	8.68E-04	U	8.68E-04	5.00E-03	5.00E-01	1.68E+01		
B8-2	127-18-4	SW8260B	9/2/2009	-14	-15	8.45E-04	U	8.45E-04	5.00E-03	5.00E-01	1.68E+01		
B8-3	127-18-4	SW8260B	9/2/2009	-8	-8.5	9.16E-04	U	9.16E-04	5.00E-03	5.00E-01	1.68E+01		
B9 0-1'	127-18-4	SW8260B	11/11/2009	0	-1	1.20E-03	U	1.20E-03	5.00E-03	5.00E-01	1.68E+01		
B9 14-15'	127-18-4	SW8260B	11/11/2009	-14	-15	1.09E-03	U	1.09E-03	5.00E-03	5.00E-01	1.68E+01		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Tetryl

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 1-2 FT	479-45-8	SW-846 8	8/31/2009	-1	-2	8.41E-01	U	8.41E-01	1.00E-01	1.02E+02	1.02E+04		
B1 13-14	479-45-8	SW-846 8	8/31/2009	-13	-14	8.41E-01	U	8.41E-01	1.00E-01	1.02E+02	1.02E+04		
B10 1 - 2	479-45-8	SW-846 8	9/2/2009	-1	-2	9.99E-01	U	9.99E-01	1.00E-01	1.02E+02	1.02E+04		
B10 11.5 - 1	479-45-8	SW-846 8	9/2/2009	-11.5	-12	1.03E+00	U	1.03E+00	1.00E-01	1.02E+02	1.02E+04		
B2 0.5-1.0	479-45-8	SW-846 8	9/1/2009	-0.5	-1	8.41E-01	U	8.41E-01	1.00E-01	1.02E+02	1.02E+04		
B2 21-21.5	479-45-8	SW-846 8	9/1/2009	-21	-21.5	8.41E-01	U	8.41E-01	1.00E-01	1.02E+02	1.02E+04		
B3 0-1	479-45-8	SW-846 8	8/31/2009	0	-1	8.41E-01	U	8.41E-01	1.00E-01	1.02E+02	1.02E+04		
B3 14-15	479-45-8	SW-846 8	8/31/2009	-14	-15	8.41E-01	U	8.41E-01	1.00E-01	1.02E+02	1.02E+04		
B4 13-14	479-45-8	SW-846 8	9/1/2009	-13	-14	8.41E-01	U	8.41E-01	1.00E-01	1.02E+02	1.02E+04		
B4 3-3.5	479-45-8	SW-846 8	9/1/2009	-3	-3.5	8.41E-01	U	8.41E-01	1.00E-01	1.02E+02	1.02E+04		
B5 14 - 14.	479-45-8	SW-846 8	9/2/2009	-14	-14.5	9.86E-01	U	9.86E-01	1.00E-01	1.02E+02	1.02E+04		
B5 0.5 - 1 M	479-45-8	SW-846 8	9/2/2009	-0.5	-1	1.03E+00	U	1.03E+00	1.00E-01	1.02E+02	1.02E+04		
B6 1 - 1.5	479-45-8	SW-846 8	9/2/2009	-1	-1.5	9.89E-01	U	9.89E-01	1.00E-01	1.02E+02	1.02E+04		
B6 14 - 14.5	479-45-8	SW-846 8	9/2/2009	-14	-14.5	9.68E-01	U	9.68E-01	1.00E-01	1.02E+02	1.02E+04		
B7 0-1 FT	479-45-8	SW-846 8	8/31/2009	0	-1	8.41E-01	U	8.41E-01	1.00E-01	1.02E+02	1.02E+04		
B7 14-15	479-45-8	SW-846 8	8/31/2009	-14	-15	8.41E-01	U	8.41E-01	1.00E-01	1.02E+02	1.02E+04		
B8 13 - 14	479-45-8	SW-846 8	9/2/2009	-13	-14	9.55E-01	U	9.55E-01	1.00E-01	1.02E+02	1.02E+04		
B8 2.75 - 3	479-45-8	SW-846 8	9/2/2009	-2.75	-3	1.06E+00	U	1.06E+00	1.00E-01	1.02E+02	1.02E+04		
B9 14-15	479-45-8	SW-846 8	8/31/2009	-14	-15	8.41E-01	U	8.41E-01	1.00E-01	1.02E+02	1.02E+04		
B9-0-2 FT	479-45-8	SW-846 8	8/31/2009	0	-2	8.41E-01	U	8.41E-01	1.00E-01	1.02E+02	1.02E+04		

Thallium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-28-0	SW6010B	8/31/2009	0	-1	5.47E+00	U	5.47E+00	1.00E+01	1.75E+00	1.49E+02	1.72E+00	4.70E-01
B1 0-1'	7440-28-0	SW6010B	11/11/2009	0	-1	1.72E+00	U	1.72E+00	5.00E+00	1.75E+00	1.49E+02	1.72E+00	4.70E-01
B1 0-1 R	7440-28-0	SW6010B	8/31/2009	0	-1	1.68E+00	U	1.68E+00	5.00E+00	1.75E+00	1.49E+02	1.72E+00	4.70E-01
B1 0-1' R	7440-28-0	SW6010B	11/11/2009	0	-1	1.72E+00	U	1.72E+00	5.00E+00	1.75E+00	1.49E+02	1.72E+00	4.70E-01
B1 14-15'	7440-28-0	SW6010B	11/11/2009	-14	-15	1.59E+00	U	1.59E+00	5.00E+00	1.75E+00	1.49E+02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Thallium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 14-15' R	7440-28-0	SW6010B	11/11/2009	-14	-15	1.59E+00	U	1.59E+00	5.00E+00	1.75E+00	1.49E+02		
B10-1	7440-28-0	SW6010B	9/2/2009	-2	-3	6.52E+00	U	6.52E+00	1.00E+01	1.75E+00	1.49E+02		
B10-1 R	7440-28-0	SW6010B	9/2/2009	-2	-3	1.88E+00	U	1.88E+00	5.00E+00	1.75E+00	1.49E+02		
B10-2	7440-28-0	SW6010B	9/2/2009	-13	-14	5.55E+00	U	5.55E+00	1.00E+01	1.75E+00	1.49E+02		
B10-2 R	7440-28-0	SW6010B	9/2/2009	-13	-14	1.69E+00	U	1.69E+00	5.00E+00	1.75E+00	1.49E+02		
B2 1-1.5	7440-28-0	SW6010B	9/1/2009	-1	-1.5	5.16E+00	U	5.16E+00	1.00E+01	1.75E+00	1.49E+02		
B2 1-1.5 R	7440-28-0	SW6010B	9/1/2009	-1	-1.5	1.60E+00	U	1.60E+00	5.00E+00	1.75E+00	1.49E+02		
B2 21-22.5	7440-28-0	SW6010B	9/1/2009	-21	-22.5	6.11E+00	U	6.11E+00	1.00E+01	1.75E+00	1.49E+02		
B2 21-22.5	7440-28-0	SW6010B	9/1/2009	-21	-22.5	1.81E+00	U	1.81E+00	5.00E+00	1.75E+00	1.49E+02		
B3 12-13	7440-28-0	SW6010B	8/31/2009	-12	-13	4.91E+00	U	4.91E+00	1.00E+01	1.75E+00	1.49E+02		
B3 12-13 R	7440-28-0	SW6010B	8/31/2009	-12	-13	1.53E+00	U	1.53E+00	5.00E+00	1.75E+00	1.49E+02		
B3 2-3	7440-28-0	SW6010B	8/31/2009	-2	-3	5.75E+00	U	5.75E+00	1.00E+01	1.75E+00	1.49E+02		
B3 2-3 R	7440-28-0	SW6010B	8/31/2009	-2	-3	1.73E+00	U	1.73E+00	5.00E+00	1.75E+00	1.49E+02		
B4 14-14.5	7440-28-0	SW6010B	9/1/2009	-14	-14.5	5.52E+00	U	5.52E+00	1.00E+01	1.75E+00	1.49E+02		
B4 14-14.5	7440-28-0	SW6010B	9/1/2009	-14	-14.5	1.69E+00	U	1.69E+00	5.00E+00	1.75E+00	1.49E+02		
B4 2-2.5	7440-28-0	SW6010B	9/1/2009	-2	-2.5	5.96E+00	U	5.96E+00	1.00E+01	1.75E+00	1.49E+02		
B4 2-2.5 R	7440-28-0	SW6010B	9/1/2009	-2	-2.5	1.78E+00	U	1.78E+00	5.00E+00	1.75E+00	1.49E+02		
B5-1	7440-28-0	SW6010B	9/2/2009	-1	-1.5	5.86E+00	U	5.86E+00	1.00E+01	1.75E+00	1.49E+02		
B5-1 R	7440-28-0	SW6010B	9/2/2009	-1	-1.5	1.76E+00	U	1.76E+00	5.00E+00	1.75E+00	1.49E+02		
B5-2	7440-28-0	SW6010B	9/2/2009	-14.5	-15	5.58E+00	U	5.58E+00	1.00E+01	1.75E+00	1.49E+02		
B5-2 R	7440-28-0	SW6010B	9/2/2009	-14.5	-15	1.71E+00	U	1.71E+00	5.00E+00	1.75E+00	1.49E+02		
B6-1	7440-28-0	SW6010B	9/2/2009	-0.5	-1	5.41E+00	U	5.41E+00	1.00E+01	1.75E+00	1.49E+02	1.72E+00	4.70E-01
B6-1 R	7440-28-0	SW6010B	9/2/2009	-0.5	-1	1.66E+00	U	1.66E+00	5.00E+00	1.75E+00	1.49E+02	1.72E+00	4.70E-01
B6-2	7440-28-0	SW6010B	9/2/2009	-14.5	-15	5.58E+00	U	5.58E+00	1.00E+01	1.75E+00	1.49E+02		
B6-2 R	7440-28-0	SW6010B	9/2/2009	-14.5	-15	1.71E+00	U	1.71E+00	5.00E+00	1.75E+00	1.49E+02		
B7 0-1'	7440-28-0	SW6010B	11/11/2009	0	-1	1.62E+00	U	1.62E+00	5.00E+00	1.75E+00	1.49E+02	1.72E+00	4.70E-01
B7 0-1' R	7440-28-0	SW6010B	11/11/2009	0	-1	1.62E+00	U	1.62E+00	5.00E+00	1.75E+00	1.49E+02	1.72E+00	4.70E-01

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Thallium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 14-15'	7440-28-0	SW6010B	11/11/2009	-14	-15	1.66E+00	U	1.66E+00	5.00E+00	1.75E+00	1.49E+02		
B7 14-15' R	7440-28-0	SW6010B	11/11/2009	-14	-15	1.66E+00	U	1.66E+00	5.00E+00	1.75E+00	1.49E+02		
B8-1	7440-28-0	SW6010B	9/2/2009	-1	-1.5	5.52E+00	U	5.52E+00	1.00E+01	1.75E+00	1.49E+02		
B8-1 R	7440-28-0	SW6010B	9/2/2009	-1	-1.5	1.69E+00	U	1.69E+00	5.00E+00	1.75E+00	1.49E+02		
B8-2	7440-28-0	SW6010B	9/2/2009	-14	-15	5.37E+00	U	5.37E+00	1.00E+01	1.75E+00	1.49E+02		
B8-2 R	7440-28-0	SW6010B	9/2/2009	-14	-15	1.66E+00	U	1.66E+00	5.00E+00	1.75E+00	1.49E+02		
B9 0-1'	7440-28-0	SW6010B	11/11/2009	0	-1	1.69E+00	U	1.69E+00	5.00E+00	1.75E+00	1.49E+02	1.72E+00	4.70E-01
B9 0-1' R	7440-28-0	SW6010B	11/11/2009	0	-1	1.69E+00	U	1.69E+00	5.00E+00	1.75E+00	1.49E+02	1.72E+00	4.70E-01
B9 14-15'	7440-28-0	SW6010B	11/11/2009	-14	-15	1.65E+00	U	1.65E+00	5.00E+00	1.75E+00	1.49E+02		
B9 14-15' R	7440-28-0	SW6010B	11/11/2009	-14	-15	1.65E+00	U	1.65E+00	5.00E+00	1.75E+00	1.49E+02		

Toluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	108-88-3	SW8260B	8/31/2009	0	-1	7.15E-04	U	7.15E-04	5.00E-03	1.00E+02	2.53E+04		
B1 0-1'	108-88-3	SW8260B	11/11/2009	0	-1	1.07E-03	U	1.07E-03	5.00E-03	1.00E+02	2.53E+04		
B1 14-15'	108-88-3	SW8260B	11/11/2009	-14	-15	7.78E-04	U	7.78E-04	5.00E-03	1.00E+02	2.53E+04		
B10-1	108-88-3	SW8260B	9/2/2009	-2	-3	8.53E-04	U	8.53E-04	5.00E-03	1.00E+02	2.53E+04		
B10-2	108-88-3	SW8260B	9/2/2009	-13	-14	7.26E-04	U	7.26E-04	5.00E-03	1.00E+02	2.53E+04		
B2 1-1.5	108-88-3	SW8260B	9/1/2009	-1	-1.5	6.76E-04	U	6.76E-04	5.00E-03	1.00E+02	2.53E+04		
B2 21-22.5	108-88-3	SW8260B	9/1/2009	-21	-22.5	8.00E-04	U	8.00E-04	5.00E-03	1.00E+02	2.53E+04		
B3 12-13	108-88-3	SW8260B	8/31/2009	-12	-13	6.43E-04	U	6.43E-04	5.00E-03	1.00E+02	2.53E+04		
B3 2-3	108-88-3	SW8260B	8/31/2009	-2	-3	7.52E-04	U	7.52E-04	5.00E-03	1.00E+02	2.53E+04		
B4 14.5-15	108-88-3	SW8260B	9/1/2009	-14.5	-15	7.30E-04	U	7.30E-04	5.00E-03	1.00E+02	2.53E+04		
B4 2-2.5	108-88-3	SW8260B	9/1/2009	-2	-2.5	7.80E-04	U	7.79E-04	5.00E-03	1.00E+02	2.53E+04		
B5-1	108-88-3	SW8260B	9/2/2009	-1	-1.5	7.67E-04	U	7.67E-04	5.00E-03	1.00E+02	2.53E+04		
B5-2	108-88-3	SW8260B	9/2/2009	-14.5	-15	7.30E-04	U	7.30E-04	5.00E-03	1.00E+02	2.53E+04		
B6-1	108-88-3	SW8260B	9/2/2009	-0.5	-1	7.09E-04	U	7.09E-04	5.00E-03	1.00E+02	2.53E+04		
B6-2	108-88-3	SW8260B	9/2/2009	-14.5	-15	7.30E-04	U	7.30E-04	5.00E-03	1.00E+02	2.53E+04		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Toluene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B7 0-1'	108-88-3	SW8260B	11/11/2009	0	-1	8.42E-04	U	8.41E-04	5.00E-03	1.00E+02	2.53E+04		
B7 14-15'	108-88-3	SW8260B	11/11/2009	-14	-15	9.21E-04	U	9.21E-04	5.00E-03	1.00E+02	2.53E+04		
B8-1	108-88-3	SW8260B	9/2/2009	-1	-1.5	7.23E-04	U	7.23E-04	5.00E-03	1.00E+02	2.53E+04		
B8-2	108-88-3	SW8260B	9/2/2009	-14	-15	7.03E-04	U	7.03E-04	5.00E-03	1.00E+02	2.53E+04		
B8-3	108-88-3	SW8260B	9/2/2009	-8	-8.5	7.62E-04	U	7.62E-04	5.00E-03	1.00E+02	2.53E+04		
B9 0-1'	108-88-3	SW8260B	11/11/2009	0	-1	9.91E-04	U	9.91E-04	5.00E-03	1.00E+02	2.53E+04		
B9 14-15'	108-88-3	SW8260B	11/11/2009	-14	-15	9.08E-04	U	9.08E-04	5.00E-03	1.00E+02	2.53E+04		

trans-1,2-Dichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	156-60-5	SW8260B	8/31/2009	0	-1	1.04E-03	U	1.04E-03	5.00E-03	1.00E+01	2.42E+03		
B1 0-1'	156-60-5	SW8260B	11/11/2009	0	-1	1.55E-03	U	1.55E-03	5.00E-03	1.00E+01	2.42E+03		
B1 14-15'	156-60-5	SW8260B	11/11/2009	-14	-15	1.14E-03	U	1.14E-03	5.00E-03	1.00E+01	2.42E+03		
B10-1	156-60-5	SW8260B	9/2/2009	-2	-3	1.24E-03	U	1.24E-03	5.00E-03	1.00E+01	2.42E+03		
B10-2	156-60-5	SW8260B	9/2/2009	-13	-14	1.05E-03	U	1.05E-03	5.00E-03	1.00E+01	2.42E+03		
B2 1-1.5	156-60-5	SW8260B	9/1/2009	-1	-1.5	9.81E-04	U	9.81E-04	5.00E-03	1.00E+01	2.42E+03		
B2 21-22.5	156-60-5	SW8260B	9/1/2009	-21	-22.5	1.16E-03	U	1.16E-03	5.00E-03	1.00E+01	2.42E+03		
B3 12-13	156-60-5	SW8260B	8/31/2009	-12	-13	9.34E-04	U	9.34E-04	5.00E-03	1.00E+01	2.42E+03		
B3 2-3	156-60-5	SW8260B	8/31/2009	-2	-3	1.09E-03	U	1.09E-03	5.00E-03	1.00E+01	2.42E+03		
B4 14.5-15	156-60-5	SW8260B	9/1/2009	-14.5	-15	1.06E-03	U	1.06E-03	5.00E-03	1.00E+01	2.42E+03		
B4 2-2.5	156-60-5	SW8260B	9/1/2009	-2	-2.5	1.13E-03	U	1.13E-03	5.00E-03	1.00E+01	2.42E+03		
B5-1	156-60-5	SW8260B	9/2/2009	-1	-1.5	1.11E-03	U	1.11E-03	5.00E-03	1.00E+01	2.42E+03		
B5-2	156-60-5	SW8260B	9/2/2009	-14.5	-15	1.06E-03	U	1.06E-03	5.00E-03	1.00E+01	2.42E+03		
B6-1	156-60-5	SW8260B	9/2/2009	-0.5	-1	1.03E-03	U	1.03E-03	5.00E-03	1.00E+01	2.42E+03		
B6-2	156-60-5	SW8260B	9/2/2009	-14.5	-15	1.06E-03	U	1.06E-03	5.00E-03	1.00E+01	2.42E+03		
B7 0-1'	156-60-5	SW8260B	11/11/2009	0	-1	1.22E-03	U	1.22E-03	5.00E-03	1.00E+01	2.42E+03		
B7 14-15'	156-60-5	SW8260B	11/11/2009	-14	-15	1.34E-03	U	1.34E-03	5.00E-03	1.00E+01	2.42E+03		
B8-1	156-60-5	SW8260B	9/2/2009	-1	-1.5	1.05E-03	U	1.05E-03	5.00E-03	1.00E+01	2.42E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

trans-1,2-Dichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B8-2	156-60-5	SW8260B	9/2/2009	-14	-15	1.02E-03	U	1.02E-03	5.00E-03	1.00E+01	2.42E+03		
B8-3	156-60-5	SW8260B	9/2/2009	-8	-8.5	1.11E-03	U	1.11E-03	5.00E-03	1.00E+01	2.42E+03		
B9 0-1'	156-60-5	SW8260B	11/11/2009	0	-1	1.44E-03	U	1.44E-03	5.00E-03	1.00E+01	2.42E+03		
B9 14-15'	156-60-5	SW8260B	11/11/2009	-14	-15	1.32E-03	U	1.32E-03	5.00E-03	1.00E+01	2.42E+03		

trans-1,3-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	142-28-9	SW8260B	8/31/2009	0	-1	1.23E-03	U	1.23E-03	1.00E-02	2.86E+00	8.04E+01		
B1 0-1'	10061-02-	SW8260B	11/11/2009	0	-1	1.84E-03	U	1.84E-03	1.00E-02				
B1 14-15'	10061-02-	SW8260B	11/11/2009	-14	-15	1.34E-03	U	1.34E-03	1.00E-02				
B10-1	142-28-9	SW8260B	9/2/2009	-2	-3	1.47E-03	U	1.47E-03	1.00E-02	2.86E+00	8.04E+01		
B10-2	142-28-9	SW8260B	9/2/2009	-13	-14	1.25E-03	U	1.25E-03	1.00E-02	2.86E+00	8.04E+01		
B2 1-1.5	142-28-9	SW8260B	9/1/2009	-1	-1.5	1.16E-03	U	1.16E-03	1.00E-02	2.86E+00	8.04E+01		
B2 21-22.5	142-28-9	SW8260B	9/1/2009	-21	-22.5	1.38E-03	U	1.38E-03	1.00E-02	2.86E+00	8.04E+01		
B3 12-13	142-28-9	SW8260B	8/31/2009	-12	-13	1.11E-03	U	1.11E-03	1.00E-02	2.86E+00	8.04E+01		
B3 2-3	142-28-9	SW8260B	8/31/2009	-2	-3	1.30E-03	U	1.30E-03	1.00E-02	2.86E+00	8.04E+01		
B4 14.5-15	142-28-9	SW8260B	9/1/2009	-14.5	-15	1.26E-03	U	1.26E-03	1.00E-02	2.86E+00	8.04E+01		
B4 2-2.5	142-28-9	SW8260B	9/1/2009	-2	-2.5	1.34E-03	U	1.34E-03	1.00E-02	2.86E+00	8.04E+01		
B5-1	142-28-9	SW8260B	9/2/2009	-1	-1.5	1.32E-03	U	1.32E-03	1.00E-02	2.86E+00	8.04E+01		
B5-2	142-28-9	SW8260B	9/2/2009	-14.5	-15	1.26E-03	U	1.26E-03	1.00E-02	2.86E+00	8.04E+01		
B6-1	142-28-9	SW8260B	9/2/2009	-0.5	-1	1.22E-03	U	1.22E-03	1.00E-02	2.86E+00	8.04E+01		
B6-2	142-28-9	SW8260B	9/2/2009	-14.5	-15	1.26E-03	U	1.26E-03	1.00E-02	2.86E+00	8.04E+01		
B7 0-1'	10061-02-	SW8260B	11/11/2009	0	-1	1.45E-03	U	1.45E-03	1.00E-02				
B7 14-15'	10061-02-	SW8260B	11/11/2009	-14	-15	1.58E-03	U	1.58E-03	1.00E-02				
B8-1	142-28-9	SW8260B	9/2/2009	-1	-1.5	1.25E-03	U	1.25E-03	1.00E-02	2.86E+00	8.04E+01		
B8-2	142-28-9	SW8260B	9/2/2009	-14	-15	1.21E-03	U	1.21E-03	1.00E-02	2.86E+00	8.04E+01		
B8-3	142-28-9	SW8260B	9/2/2009	-8	-8.5	1.31E-03	U	1.31E-03	1.00E-02	2.86E+00	8.04E+01		
B9 0-1'	10061-02-	SW8260B	11/11/2009	0	-1	1.70E-03	U	1.70E-03	1.00E-02				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

trans-1,3-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B9 14-15'	10061-02-	SW8260B	11/11/2009	-14	-15	1.57E-03	U	1.57E-03	1.00E-02				

Trichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	79-01-6	SW8260B	8/31/2009	0	-1	8.50E-04	U	8.50E-04	5.00E-03	5.00E-01	6.61E+00		
B1 0-1'	79-01-6	SW8260B	11/11/2009	0	-1	1.27E-03	U	1.27E-03	5.00E-03	5.00E-01	6.61E+00		
B1 14-15'	79-01-6	SW8260B	11/11/2009	-14	-15	9.26E-04	U	9.26E-04	5.00E-03	5.00E-01	6.61E+00		
B10-1	79-01-6	SW8260B	9/2/2009	-2	-3	1.01E-03	U	1.01E-03	5.00E-03	5.00E-01	6.61E+00		
B10-2	79-01-6	SW8260B	9/2/2009	-13	-14	8.63E-04	U	8.63E-04	5.00E-03	5.00E-01	6.61E+00		
B2 1-1.5	79-01-6	SW8260B	9/1/2009	-1	-1.5	8.03E-04	U	8.03E-04	5.00E-03	5.00E-01	6.61E+00		
B2 21-22.5	79-01-6	SW8260B	9/1/2009	-21	-22.5	9.51E-04	U	9.51E-04	5.00E-03	5.00E-01	6.61E+00		
B3 12-13	79-01-6	SW8260B	8/31/2009	-12	-13	7.64E-04	U	7.64E-04	5.00E-03	5.00E-01	6.61E+00		
B3 2-3	79-01-6	SW8260B	8/31/2009	-2	-3	8.94E-04	U	8.94E-04	5.00E-03	5.00E-01	6.61E+00		
B4 14.5-15	79-01-6	SW8260B	9/1/2009	-14.5	-15	8.68E-04	U	8.68E-04	5.00E-03	5.00E-01	6.61E+00		
B4 2-2.5	79-01-6	SW8260B	9/1/2009	-2	-2.5	9.27E-04	U	9.26E-04	5.00E-03	5.00E-01	6.61E+00		
B5-1	79-01-6	SW8260B	9/2/2009	-1	-1.5	9.11E-04	U	9.11E-04	5.00E-03	5.00E-01	6.61E+00		
B5-2	79-01-6	SW8260B	9/2/2009	-14.5	-15	8.68E-04	U	8.68E-04	5.00E-03	5.00E-01	6.61E+00		
B6-1	79-01-6	SW8260B	9/2/2009	-0.5	-1	8.42E-04	U	8.42E-04	5.00E-03	5.00E-01	6.61E+00		
B6-2	79-01-6	SW8260B	9/2/2009	-14.5	-15	8.68E-04	U	8.68E-04	5.00E-03	5.00E-01	6.61E+00		
B7 0-1'	79-01-6	SW8260B	11/11/2009	0	-1	1.00E-03	U	1.00E-03	5.00E-03	5.00E-01	6.61E+00		
B7 14-15'	79-01-6	SW8260B	11/11/2009	-14	-15	1.10E-03	U	1.09E-03	5.00E-03	5.00E-01	6.61E+00		
B8-1	79-01-6	SW8260B	9/2/2009	-1	-1.5	8.59E-04	U	8.59E-04	5.00E-03	5.00E-01	6.61E+00		
B8-2	79-01-6	SW8260B	9/2/2009	-14	-15	8.35E-04	U	8.35E-04	5.00E-03	5.00E-01	6.61E+00		
B8-3	79-01-6	SW8260B	9/2/2009	-8	-8.5	9.06E-04	U	9.06E-04	5.00E-03	5.00E-01	6.61E+00		
B9 0-1'	79-01-6	SW8260B	11/11/2009	0	-1	1.17E-03	U	1.17E-03	5.00E-03	5.00E-01	6.61E+00		
B9 14-15'	79-01-6	SW8260B	11/11/2009	-14	-15	1.08E-03	U	1.08E-03	5.00E-03	5.00E-01	6.61E+00		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Trichlorofluoromethane

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	75-69-4	SW8260B	8/31/2009	0	-1	1.97E-03	U	1.97E-03	5.00E-03	3.07E+03	3.79E+03		
B1 0-1'	75-69-4	SW8260B	11/11/2009	0	-1	2.42E-03	U	2.42E-03	5.00E-03	3.07E+03	3.79E+03		
B1 14-15'	75-69-4	SW8260B	11/11/2009	-14	-15	1.75E-03	U	1.75E-03	5.00E-03	3.07E+03	3.79E+03		
B10-1	75-69-4	SW8260B	9/2/2009	-2	-3	2.34E-03	U	2.34E-03	5.00E-03	3.07E+03	3.79E+03		
B10-2	75-69-4	SW8260B	9/2/2009	-13	-14	2.00E-03	U	2.00E-03	5.00E-03	3.07E+03	3.79E+03		
B2 1-1.5	75-69-4	SW8260B	9/1/2009	-1	-1.5	1.86E-03	U	1.86E-03	5.00E-03	3.07E+03	3.79E+03		
B2 21-22.5	75-69-4	SW8260B	9/1/2009	-21	-22.5	2.20E-03	U	2.20E-03	5.00E-03	3.07E+03	3.79E+03		
B3 12-13	75-69-4	SW8260B	8/31/2009	-12	-13	1.77E-03	U	1.77E-03	5.00E-03	3.07E+03	3.79E+03		
B3 2-3	75-69-4	SW8260B	8/31/2009	-2	-3	2.07E-03	U	2.07E-03	5.00E-03	3.07E+03	3.79E+03		
B4 14.5-15	75-69-4	SW8260B	9/1/2009	-14.5	-15	2.01E-03	U	2.01E-03	5.00E-03	3.07E+03	3.79E+03		
B4 2-2.5	75-69-4	SW8260B	9/1/2009	-2	-2.5	2.14E-03	U	2.14E-03	5.00E-03	3.07E+03	3.79E+03		
B5-1	75-69-4	SW8260B	9/2/2009	-1	-1.5	2.11E-03	U	2.11E-03	5.00E-03	3.07E+03	3.79E+03		
B5-2	75-69-4	SW8260B	9/2/2009	-14.5	-15	2.01E-03	U	2.01E-03	5.00E-03	3.07E+03	3.79E+03		
B6-1	75-69-4	SW8260B	9/2/2009	-0.5	-1	1.95E-03	U	1.95E-03	5.00E-03	3.07E+03	3.79E+03		
B6-2	75-69-4	SW8260B	9/2/2009	-14.5	-15	2.01E-03	U	2.01E-03	5.00E-03	3.07E+03	3.79E+03		
B7 0-1'	75-69-4	SW8260B	11/11/2009	0	-1	1.90E-03	U	1.90E-03	5.00E-03	3.07E+03	3.79E+03		
B7 14-15'	75-69-4	SW8260B	11/11/2009	-14	-15	2.08E-03	U	2.08E-03	5.00E-03	3.07E+03	3.79E+03		
B8-1	75-69-4	SW8260B	9/2/2009	-1	-1.5	1.99E-03	U	1.99E-03	5.00E-03	3.07E+03	3.79E+03		
B8-2	75-69-4	SW8260B	9/2/2009	-14	-15	1.93E-03	U	1.93E-03	5.00E-03	3.07E+03	3.79E+03		
B8-3	75-69-4	SW8260B	9/2/2009	-8	-8.5	2.09E-03	U	2.09E-03	5.00E-03	3.07E+03	3.79E+03		
B9 0-1'	75-69-4	SW8260B	11/11/2009	0	-1	2.24E-03	U	2.24E-03	5.00E-03	3.07E+03	3.79E+03		
B9 14-15'	75-69-4	SW8260B	11/11/2009	-14	-15	2.05E-03	U	2.05E-03	5.00E-03	3.07E+03	3.79E+03		

Vanadium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-62-2	SW6010B	8/31/2009	0	-1	1.66E+01		8.72E-01	2.00E+00	7.15E+01	2.95E+03	1.86E+01	4.05E+01
B1 0-1'	7440-62-2	SW6010B	11/11/2009	0	-1	4.06E+01		9.01E-01	2.00E+00	7.15E+01	2.95E+03	1.86E+01	4.05E+01
B1 14-15'	7440-62-2	SW6010B	11/11/2009	-14	-15	1.31E+01		8.11E-01	2.00E+00	7.15E+01	2.95E+03		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Vanadium

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B10-1	7440-62-2	SW6010B	9/2/2009	-2	-3	3.09E+01		1.04E+00	2.00E+00	7.15E+01	2.95E+03	2.98E+01	5.00E+01
B10-2	7440-62-2	SW6010B	9/2/2009	-13	-14	8.77E+00		8.85E-01	2.00E+00	7.15E+01	2.95E+03		
B2 1-1.5	7440-62-2	SW6010B	9/1/2009	-1	-1.5	3.12E+01		8.24E-01	2.00E+00	7.15E+01	2.95E+03	2.98E+01	5.00E+01
B2 21-22.5	7440-62-2	SW6010B	9/1/2009	-21	-22.5	2.87E+01		9.75E-01	2.00E+00	7.15E+01	2.95E+03		
B3 12-13	7440-62-2	SW6010B	8/31/2009	-12	-13	7.84E-01	U	7.84E-01	2.00E+00	7.15E+01	2.95E+03		
B3 2-3	7440-62-2	SW6010B	8/31/2009	-2	-3	4.32E+01		9.17E-01	2.00E+00	7.15E+01	2.95E+03	2.98E+01	5.00E+01
B4 14-14.5	7440-62-2	SW6010B	9/1/2009	-14	-14.5	1.83E+01		8.80E-01	2.00E+00	7.15E+01	2.95E+03		
B4 2-2.5	7440-62-2	SW6010B	9/1/2009	-2	-2.5	9.51E-01	U	9.51E-01	2.00E+00	7.15E+01	2.95E+03	2.98E+01	5.00E+01
B5-1	7440-62-2	SW6010B	9/2/2009	-1	-1.5	3.47E+01		9.35E-01	2.00E+00	7.15E+01	2.95E+03	2.98E+01	5.00E+01
B5-2	7440-62-2	SW6010B	9/2/2009	-14.5	-15	2.42E+01		8.91E-01	2.00E+00	7.15E+01	2.95E+03		
B6-1	7440-62-2	SW6010B	9/2/2009	-0.5	-1	2.49E+01		8.64E-01	2.00E+00	7.15E+01	2.95E+03	1.86E+01	4.05E+01
B6-2	7440-62-2	SW6010B	9/2/2009	-14.5	-15	3.22E+01		8.91E-01	2.00E+00	7.15E+01	2.95E+03		
B7 0-1'	7440-62-2	SW6010B	11/11/2009	0	-1	1.93E+01		8.33E-01	2.00E+00	7.15E+01	2.95E+03	1.86E+01	4.05E+01
B7 14-15'	7440-62-2	SW6010B	11/11/2009	-14	-15	1.83E+01		8.58E-01	2.00E+00	7.15E+01	2.95E+03		
B8-1	7440-62-2	SW6010B	9/2/2009	-1	-1.5	3.95E+01		8.81E-01	2.00E+00	7.15E+01	2.95E+03	2.98E+01	5.00E+01
B8-2	7440-62-2	SW6010B	9/2/2009	-14	-15	2.08E+01		8.57E-01	2.00E+00	7.15E+01	2.95E+03		
B9 0-1'	7440-62-2	SW6010B	11/11/2009	0	-1	3.01E+01		8.79E-01	2.00E+00	7.15E+01	2.95E+03	1.86E+01	4.05E+01
B9 14-15'	7440-62-2	SW6010B	11/11/2009	-14	-15	1.57E+01		8.54E-01	2.00E+00	7.15E+01	2.95E+03		

Vinyl chloride

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	75-01-4	SW8260B	8/31/2009	0	-1	1.07E-03	U	1.07E-03	2.00E-03	2.00E-01	6.58E-02		
B1 0-1'	75-01-4	SW8260B	11/11/2009	0	-1	1.60E-03	U	1.60E-03	2.00E-03	2.00E-01	6.58E-02		
B1 14-15'	75-01-4	SW8260B	11/11/2009	-14	-15	1.17E-03	U	1.17E-03	2.00E-03	2.00E-01	6.58E-02		
B10-1	75-01-4	SW8260B	9/2/2009	-2	-3	1.28E-03	U	1.28E-03	2.00E-03	2.00E-01	6.58E-02		
B10-2	75-01-4	SW8260B	9/2/2009	-13	-14	1.09E-03	U	1.09E-03	2.00E-03	2.00E-01	6.58E-02		
B2 1-1.5	75-01-4	SW8260B	9/1/2009	-1	-1.5	1.01E-03	U	1.01E-03	2.00E-03	2.00E-01	6.58E-02		
B2 21-22.5	75-01-4	SW8260B	9/1/2009	-21	-22.5	1.20E-03	U	1.20E-03	2.00E-03	2.00E-01	6.58E-02		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Vinyl chloride

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B3 12-13	75-01-4	SW8260B	8/31/2009	-12	-13	9.62E-04	U	9.62E-04	2.00E-03	2.00E-01	6.58E-02		
B3 2-3	75-01-4	SW8260B	8/31/2009	-2	-3	1.12E-03	U	1.12E-03	2.00E-03	2.00E-01	6.58E-02		
B4 14.5-15	75-01-4	SW8260B	9/1/2009	-14.5	-15	1.09E-03	U	1.09E-03	2.00E-03	2.00E-01	6.58E-02		
B4 2-2.5	75-01-4	SW8260B	9/1/2009	-2	-2.5	1.17E-03	U	1.17E-03	2.00E-03	2.00E-01	6.58E-02		
B5-1	75-01-4	SW8260B	9/2/2009	-1	-1.5	1.15E-03	U	1.15E-03	2.00E-03	2.00E-01	6.58E-02		
B5-2	75-01-4	SW8260B	9/2/2009	-14.5	-15	1.09E-03	U	1.09E-03	2.00E-03	2.00E-01	6.58E-02		
B6-1	75-01-4	SW8260B	9/2/2009	-0.5	-1	1.06E-03	U	1.06E-03	2.00E-03	2.00E-01	6.58E-02		
B6-2	75-01-4	SW8260B	9/2/2009	-14.5	-15	1.09E-03	U	1.09E-03	2.00E-03	2.00E-01	6.58E-02		
B7 0-1'	75-01-4	SW8260B	11/11/2009	0	-1	1.25E-03	U	1.25E-03	2.00E-03	2.00E-01	6.58E-02		
B7 14-15'	75-01-4	SW8260B	11/11/2009	-14	-15	1.37E-03	U	1.37E-03	2.00E-03	2.00E-01	6.58E-02		
B8-1	75-01-4	SW8260B	9/2/2009	-1	-1.5	1.08E-03	U	1.08E-03	2.00E-03	2.00E-01	6.58E-02		
B8-2	75-01-4	SW8260B	9/2/2009	-14	-15	1.05E-03	U	1.05E-03	2.00E-03	2.00E-01	6.58E-02		
B8-3	75-01-4	SW8260B	9/2/2009	-8	-8.5	1.14E-03	U	1.14E-03	2.00E-03	2.00E-01	6.58E-02		
B9 0-1'	75-01-4	SW8260B	11/11/2009	0	-1	1.49E-03	U	1.49E-03	2.00E-03	2.00E-01	6.58E-02		
B9 14-15'	75-01-4	SW8260B	11/11/2009	-14	-15	1.37E-03	U	1.37E-03	2.00E-03	2.00E-01	6.58E-02		

Zinc

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B1 0-1	7440-66-6	SW6010B	8/31/2009	0	-1	2.40E+01		5.00E-01	1.00E+00	3.07E+03	4.09E+05	1.52E+01	6.16E+01
B1 0-1'	7440-66-6	SW6010B	11/11/2009	0	-1	3.31E+01		5.17E-01	1.00E+00	3.07E+03	4.09E+05	1.52E+01	6.16E+01
B1 14-15'	7440-66-6	SW6010B	11/11/2009	-14	-15	1.85E+01		4.65E-01	1.00E+00	3.07E+03	4.09E+05		
B10-1	7440-66-6	SW6010B	9/2/2009	-2	-3	3.33E+01		5.96E-01	1.00E+00	3.07E+03	4.09E+05	1.22E+01	2.48E+01
B10-2	7440-66-6	SW6010B	9/2/2009	-13	-14	1.96E+01		5.08E-01	1.00E+00	3.07E+03	4.09E+05		
B2 1-1.5	7440-66-6	SW6010B	9/1/2009	-1	-1.5	3.97E+01		4.73E-01	1.00E+00	3.07E+03	4.09E+05	1.22E+01	2.48E+01
B2 21-22.5	7440-66-6	SW6010B	9/1/2009	-21	-22.5	6.44E+01		5.59E-01	1.00E+00	3.07E+03	4.09E+05		
B3 12-13	7440-66-6	SW6010B	8/31/2009	-12	-13	1.73E+01		4.50E-01	1.00E+00	3.07E+03	4.09E+05		
B3 2-3	7440-66-6	SW6010B	8/31/2009	-2	-3	3.51E+01		5.26E-01	1.00E+00	3.07E+03	4.09E+05	1.22E+01	2.48E+01
B4 14-14.5	7440-66-6	SW6010B	9/1/2009	-14	-14.5	5.04E+01		5.05E-01	1.00E+00	3.07E+03	4.09E+05		

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 5 - Soil Data Summary Table
Based on Commercial/Industrial Land Use

Zinc

Sample ID	CAS	Method	Sample Date	Top Dep.	Bot. Dep.	Result	Qual	SQL	MQL	GWP Ind mg	SAI Ind	UCL	UTL
B4 2-2.5	7440-66-6	SW6010B	9/1/2009	-2	-2.5	4.44E+01		5.45E-01	1.00E+00	3.07E+03	4.09E+05	1.22E+01	2.48E+01
B5-1	7440-66-6	SW6010B	9/2/2009	-1	-1.5	3.38E+01		5.36E-01	1.00E+00	3.07E+03	4.09E+05	1.22E+01	2.48E+01
B5-2	7440-66-6	SW6010B	9/2/2009	-14.5	-15	5.84E+01		5.11E-01	1.00E+00	3.07E+03	4.09E+05		
B6-1	7440-66-6	SW6010B	9/2/2009	-0.5	-1	2.83E+01		4.95E-01	1.00E+00	3.07E+03	4.09E+05	1.52E+01	6.16E+01
B6-2	7440-66-6	SW6010B	9/2/2009	-14.5	-15	6.22E+01		5.11E-01	1.00E+00	3.07E+03	4.09E+05		
B7 0-1'	7440-66-6	SW6010B	11/11/2009	0	-1	1.79E+01		4.77E-01	1.00E+00	3.07E+03	4.09E+05	1.52E+01	6.16E+01
B7 14-15'	7440-66-6	SW6010B	11/11/2009	-14	-15	8.65E+00		4.92E-01	1.00E+00	3.07E+03	4.09E+05		
B8-1	7440-66-6	SW6010B	9/2/2009	-1	-1.5	1.89E+01		5.05E-01	1.00E+00	3.07E+03	4.09E+05	1.22E+01	2.48E+01
B8-2	7440-66-6	SW6010B	9/2/2009	-14	-15	2.35E+01		4.91E-01	1.00E+00	3.07E+03	4.09E+05		
B9 0-1'	7440-66-6	SW6010B	11/11/2009	0	-1	1.23E+01		5.04E-01	1.00E+00	3.07E+03	4.09E+05	1.52E+01	6.16E+01
B9 14-15'	7440-66-6	SW6010B	11/11/2009	-14	-15	2.43E+01		4.90E-01	1.00E+00	3.07E+03	4.09E+05		

SITE: LHAAP19

Result exceeds shaded MSC.

All units are mg/Kg

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APPENDIX 6

SOIL LABORATORY DATA PACKAGES AND ASSOCIATED DATA USABILITY SUMMARIES

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Data Usability Summary
LHAAP-19
Lab Project No. 0909007

Introduction

Regulatory Compliance & Guidance (RCG) reviewed one data package (Job No. 0909007) prepared by Alamo Analytical Laboratories, LTD for laboratory sample nos. 0909007-5A and -7A through -13A. The data package was reviewed following guidance (Consistency Document[1] and TRRP-13[2]) prepared by the Texas Commission on Environmental Quality (TCEQ) and the equivalent sections of engineering manual (EM) 200-1-10[3] prepared by the US Army Corps of Engineers (USACE).

Intended Use of Data

The data is to be used to support a risk-based closure of the LHAAP-19 under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) consistent with requirements of Title 30 Texas Administrative Code (TAC) §335.8 (relating to closure and remediation).

Data Package Contents

In order to ensure data quality, a TRRP-13 reporting package was requested from and provided by the laboratory. The data package included the following:

- signed, laboratory review checklist and associated exception reports (when needed);
- cross-reference guide for field to laboratory identification numbers;
- completed chain of custody form and written documentation regarding changes/comments;
- reportable data;
- quality control results for duplicates, method blanks, laboratory control samples and laboratory control sample duplicates, matrix spike and matrix spike duplicates, laboratory fortified blanks, and surrogate recoveries;
- laboratory chronicles;
- quality assurance methods, references, and notes; and
- sample log-in checklist.

Chain of Custody Form

Thirteen (13) soil samples were collected on September 1, 2009 from Longhorn Army Ammunition Plant (LHAAP) Site 19 in Karnack, TX (Site). Eight of the 13 soil samples were to be analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (S-VOCs), and target analyte list (TAL) metals. Two project samples were to be used as MS/MSDs. One trip blank, to be analyzed only for VOCs, was placed on hold pending VOC detections in the environmental samples.

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[1] TCEQ. 1998. Interoffice Memorandum regarding Implementation of the Existing Risk Reduction Rule. July 23.
[2] TCEQ. 2002. Review and Reporting COC Concentration Data. RG366/TRRP-13. December.
[3] USACE. 2005. Guidance for Evaluating Performance-Based Chemical Data. EM 200-1-10. June 30. http://140.194.76.129/publications/eng-manuals/em200-1-10/entire.pdf

Analytical Methods, Preservation, and Holding Times

The laboratory utilized analytical methods described in the *Test Methods for Evaluating Solid Waste, Third Edition, September 1986 and Updates I, II, IIA, IIB, and III* (SW-846). The analytical methods utilized were:

- SW6010B (aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, selenium, silver, sodium, strontium, thallium, vanadium, and zinc);
- SW7196A (hexavalent chromium);
- SW7471A (mercury);
- SW9010A (cyanide);
- SW8260B by gas chromatography (GC)/ mass spectrometry (MS) (VOCs); and
- SW8270C by GC/MS with selective ion monitoring (SIM) (S-VOCs).

The holding times and preservation requirements found in SW846 and EM 200-1-3[4] are summarized in the following table. The preparation and analysis dates are taken from the laboratory chronicles.

Table 1 – Preservation and Holding Time Requirements

Test Method	Holding Times	Preservative	Sample Date	Prep Date	Analysis Date
SW6010B	6 months	4°C	8/31-9/1/2009	9/5/2009	9/8/2009
SW7196A	24 hours	4°C	8/31-9/1/2009	9/9/2009	9/9/2009
SW7470A	28 days	4°C	8/31-9/1/2009	9/8/2009	9/8/2009
SW9010A	14 days	4°C	8/31-9/1/2009	9/8/2009	9/8/2009
SW8260B	14 days	4°C	8/31-9/1/2009	9/9/2009	9/9-10/2009
SW8270C	14/40 days	4°C	8/31-9/1/2009	9/9/2009	9/21/2009
SW8270C SIM	14/40 days	4°C	8/31-9/1/2009	9/9/2009	9/23/2009

The samples were properly sealed and preserved. With the exception of hexavalent chromium, the samples were extracted and analyzed within the required holding times. The total chromium values detected using Method SW6010B should be compared to the regulatory standards for hexavalent chromium unless the absence of hexavalent chromium is confirmed.

Quality Control

Quality control samples included method blanks, surrogate recoveries, laboratory control samples (LCS) and LCS duplicates, matrix spike and matrix spike duplicates (MS/MSD).

Blanks

Blanks are used to determine if the samples may have been contaminated as the result of transportation or laboratory practices. If an analyte is detected in a blank, then a detected result in an associated sample may not be representative of actual site conditions.

[4] USACE. 2001. Engineering and Design – Requirements for the Preparation of Sampling and Analysis Plans. February 1.

The targeted analytes were not detected in the laboratory blanks. The trip blank was not analyzed for VOCs since VOCs were not detected in the samples.

Laboratory control sample (LCS)

According to the Environmental Protection Agency (EPA)[5], "The primary purpose of the LCS is to demonstrate that the laboratory can perform the overall analytical approach in a matrix free of interferences (e.g, in reagent water, clean sand, or another suitable reference matrix)." The percent recovery indicates the accuracy of the lab and whether the data is biased (high or low). The relative percent difference (RPD) indicates the laboratory's ability to reproduce the data (precision).

The lowest and highest percent recoveries are listed in the following table. The project control limits were based on USACE (2005). Since the laboratory control limits vary for each individual parameter, the widest range is listed for each test method.

Table 2 – LCS Percent Recoveries Compared to Project and Laboratory Control Limits

Method Description	Percent Recovery	Project Control Limits (% Recovery)	Laboratory Control Limits (% Recovery)
Inorganics	90-111	80-120	80-120
S-VOCs	38-130	60-140	20-140
VOCs	81-119	80-120	21-201

Table 3 Percent Recoveries Outside Control Limits for LCS

Parameter	Percent Recovery	Bias Code
2,4-dimethylphenol	41	L
3-nitroaniline	39	L
4-chloroaniline	38	L
aniline	56	L
benzoic acid	49	L
bis(2-chloroethoxy)methane	58	L
isophorone	45	L
n-nitrosodimethylamine	36	L
nitrobenzene	51	L

The control limits were met except for the S-VOC parameters listed in Table 3. The reported results for these parameters may be biased low (L). The reported results were adjusted by the percent recovery and the adjusted results were compared directly to the regulatory levels. The adjusted results do not change the original conclusions based on the reported results. No further action is warranted.

[5] EPA. 2009. Batch Sizes and QC Questions. Downloaded from web page on December 4. http://www.epa.gov/osw/hazard/testmethods/faq/faqs_qc.htm#Spike

Matrix spike and matrix spike duplicate (MS/MSD)

The MS/MSD results measure a method's performance relative to the specific sample matrix of interest (EPA, 2009). If the percent recoveries and relative percent differences (RPDs) for the MS/MSD are similar to those of the LCS/LCSDs, then matrix interference is unlikely.

Two project samples (B2 1-1.5 and B4 14-14.5) were used as MS/MSDs. The percent recoveries and RPDs for the project samples are listed Table 4. The project limits were based on USACE, 2005.

Table 4 Percent Recovery Ranges with Maximum RPDs for MS/MSDs

Method Description	%Recovery	RPD	Project Control Limits (% Recovery)	Project Control Limits (RPD)	Laboratory Control Limits (% Recovery)
Inorganics	32-1880	24.1	80-120	20	80-120
S-VOCs	46-126	9.5	60-140	40	20-140
VOCs	77-108	23	80-120	20	21-201

Table 5 lists the parameter and associated RPD for each percent recovery that was outside the control limits AND differed from the recoveries for the LCSs.

Table 5 Percent Recoveries with Associated RPDs for MS/MSD

Parameter	%Recovery	RPD	Qual/Bias Code
aluminum	18880	7.7	H
calcium	32	0	L
iron	12800	9.4	H
magnesium	230	0.5	H
thallium	294	0.7	H
butyl benzyl phthalate	53	9.5	L
n-nitrosodimethylamine	51	3.5	L
pyridine	46	10.9	L
chlorobenzene	78	0.5	
m,p-xylene	79	2.2	L
naphthalene	78	12.7	L
tert-butylbenzene	77	21.5	L
tetrachloroethene	79	3.6	L

H = High
L = Low
J = Estimated

The reported results for these parameters may be biased high (H) or low (L) due to matrix interference. The reported results were adjusted by the percent recovery and compared to the action level. The adjusted results do not change the original conclusion based on the reported results. No further action is warranted.

Surrogate Recoveries

Surrogates are similar in chemical composition to the organic analytes of interest. The surrogates are spiked into environmental and batch QC samples prior to sample preparation and analysis. Surrogate recoveries are used to evaluate potential bias that could have been introduced by the preparatory procedures and/or the analysis (TCEQ, 2002) and to evaluate matrix interference on a sample-specific basis (USACE, 2001).

The surrogate recoveries for blanks, LCSs, and environmental samples were compared to the surrogate recovery limits listed in TCEQ, 2002.

The surrogate recoveries for blanks and laboratory control samples met the project limits. The surrogate recoveries from project environmental samples met the project limits except for 2,4,6-tibromophenol (132.42%) in lab sample 0909007-09A which is project sample B4 2-2.5. Since only one compound was out of range, the data does not need to be qualified (TCEQ, 2002).

Analytical Results

Detected

Concentrations detected below the method quantitation limit (MQL) but above the SQL were estimated values and flagged with a 'J'. The analytes detected in the environmental samples are listed in the data tables.

Non-detected: Non-detected results were reported as less than the value of the sample quantitation limit (SQL). The SQLs for the some analytes exceeded the regulatory limits. The laboratory should confirm that the most sensitive method available was used for these analytes. The MQLs may be used as the regulatory limit if the most sensitive method available was used and the SQLs are less than the MQLs.

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ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121

12/30/2009

Greg Osuna
Alamo 1
10843 Gulfdale
San Antonio , TX - 78216
TEL: (210) 218-3271
FAX: (210) 820-3636 Email:

RE: LHAAp19-LFCA

Dear Greg Osuna: Order No.: 0909007

Enclosed please find the revised report updating the Thallium and Bis(2-chloroethyl)ether MDLs and PQLs with low level analysis. Lowest possible reporting limits and MDLs was used to achieve project requirements.

Thank you,

Reddy Gosala

Laboratory Director

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed clien
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ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121

9/29/2009

Greg Osuna
Alamo 1
10843 Gulfdale
San Antonio , TX - 78216
TEL: (210) 218-3271
FAX: (210) 820-3636 Email:

RE: LHAAp19-LFCA

Dear Greg Osuna: Order No.: 0909007

The attached report/s contain Chain of Custody, Analytical Report/s and QA/QC report. If you have any questions regarding these tests results call (210) 340-8121.

Thank you,

Reddy Gosala

Laboratory Director

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

NELAP Certificate# T104704367-08-TX

Alamo Analytical Laboratories, LTD

ANALYTICAL REPORT

JOB NUMBER 0909007

Prepared for

Alamo 1

Attn. Greg Osuna

Date: September 30,2009

Signature

Date 9/30/09

Name: Reddy Gosala
Title: Lab Director
E-Mail: Alamo_labs@sbcglobal.net

10526 Gulfdale San Antonio, TX 78216

Alamo Analytical Laboratories, LTD

TRRP Data Package Signature Page

Job Number: 0909007

Project Name/Number: LHAAp19-LFCA

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

[X] R1 Field Chain-of-Custody Form

[X] R2 Sample Identification Cross-reference;

[X] R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
- a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
- b) dilution factors,
- c) preparation methods,
- d) cleanup methods, and
- e) if required for the project, tentatively identified compounds (TICs).

[X] R4 Surrogate Recovery Data including:
- a) Calculated recovery (%R), and
- b) The Laboratory's surrogate recovery limits.

[X] R5 Test Reports/Summary Forms for Blank Samples;

[X] R6 Test Reports/Summary Forms for Laboratory Control Smaples (LCSs) including:
- a) LCS Spiking amounts,
- b) Calculated %R for each analyte, and
- c) The Laboratory's LCS QC Limits

[X] R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
- a) Samples associated with the MS/MSD clearly identified,
- b) MS/MSD spiking amounts,
- c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
- d) Calculated %Rs and relative percent differences (RPDs), and
- e) The Laboratory's MS/MSD QC Limits

[X] R8 Laboratory Analytical Duplicates (if applicable) Recovery and Precision, including:
- a) The amount of analyte measured in the duplicate,
- b) The calculated RPD, and
- c) the Laboratory's QC Limits for analytical duplicates.

[X] R9 Method Quamtation Limit (MQL) for each analyte for each method and matrix;

[X] R10 Other problems and anomalies

Release Statement: "I am responsible for the release of the data package. This laboratory data package has been reviewed and is complete and technically complaint with the requirements of the methods used, except where noted by the laboratory in the attched exception reports."

Reddy Gosala		Laboratory Director	9/30/09
Name (Printed)	Signature	Official Title (Printed)	Date

Alamo Analytical Laboratories, LTD

SAMPLE INFORMATION

Date: 9/29/2009

Job Number.: 0909007

Project Name...: LHAAp19-LFCA

Customer.....: Alamo 1

Attn.....: Greg Osuna

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
0909007-05A	B1 0-1	Soil	8/31/2009	16:15	9/2/2009	8:05
0909007-07A	B3 2-3	Soil	8/31/2009	17:02	9/2/2009	8:05
0909007-08A	B3 12-13	Soil	8/31/2009	17:06	9/2/2009	8:05
0909007-09A	B4 2-2.5	Soil	9/1/2009	10:19	9/2/2009	8:05
0909007-10A	B4 14-14.5	Soil	9/1/2009	10:46	9/2/2009	8:05
0909007-11A	B4 14.5-15	Soil	9/1/2009	10:47	9/2/2009	8:05
0909007-12A	B2 1-1.5	Soil	9/1/2009	12:42	9/2/2009	8:05
0909007-13A	B2 21-22.5	Soil	9/1/2009	12:15	9/2/2009	8:05

1 of 2

CHAIN OF CUSTODY RECORD

COC #: 07425

ALAMO ANALYTICAL LABORATORIES LTD.
10526 Gulfdale
San Antonio, Texas 78216
(210) 340-8121 • (800) 572-6955
Fax: (210) 340-8123
www.alamoanalytical.com
admin@alamoanalytical.com

NELAP Certificate # T104704367-08-TX

MUST BE COMPLETED BY CLIENT

Alamo's Client: Alamo Environmental	Client's P.O. #: AR09-195
Project Manager: Greg Osuna	Phone #: (210) 404-1224
Address: 10843 Gulfdale	Fax #: SA, TX
Project Number:	Project Name: LHAAP19 LFCA
Project Location: LHAAP Karnack, TX	Sampler Signature:

Turnaround time: Standard (7) ☒ (in working days)
RUSH: 1☐ 2☐ 3-5☐ Days (additional charges)
TRRP 13 Report: Yes ☒ No ☐ (additional charges)
Analysis for Permit Compliance: Yes ☐ No ☒
DMR Form Required: Yes ☐ No ☐

LAB ID# (Do not use)	Sampling Date	Sampling Time	Composite	Grab	Matrix	FIELD ID #	FIELD DESCRIPTION	No. of Containers	VOCs	SVOCs	TAL Metals					REMARKS (Preservation, Size/Amount, Etc.)
909007-01	8/31/09	1033			SOIL	B7	0-1 FT	2								refer to
909007-02		1038				B7	14-15 FT	2								Work Plan
909007-03		1123				B9	0-2 FT	2								
909007-04		1154				B9	14-15 FT	2								
909007-05		1615				B1	0-1	3	X	X	X					MS/MSD VOCs
909007-06		1640				B1	14-15	2								
909007-07		1702				B3	2-3	2	X	X	X					
909007-08		1706				B3	12-13	2	X	X	X					

Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Phyllis Primrose	9/1/09	14:10	
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Relinquished by: (Signature / Print Name)	Date 9-2-9	Time 0805	Received for Laboratory by: (Signature)

Headspace	N/A		If Yes, Amt. Solid
Properly Sealed	Y		If No, Explain
Chilled ≤4° C	Y		If No, Temp. 3°C

Comments: refer to Work Plan for methods and CRQLs; + LORPs.

2 of 2

CHAIN OF CUSTODY RECORD

COC #: 07426

ALAMO ANALYTICAL LABORATORIES LTD.
10526 Gulfdale
San Antonio, Texas 78216
(210) 340-8121 • (800) 572-6955
Fax: (210) 340-8123
www.alamoanalytical.com
admin@alamoanalytical.com

NELAP Certificate # T104704367-08-TX

MUST BE COMPLETED BY CLIENT

Alamo's Client: Alamo Environmental	Client's P.O. #: AR09-195
Project Manager: Greg Osuna	Phone #: 210.404.1220
Address: 10843 Gulfdale	Fax #: SA TX
Project Number:	Project Name: LHAAP 19 UC A
Project Location: LHAAP Karnack, TX	Sampler Signature:

Turnaround time: Standard (7) ☒ (in working days)
RUSH: 1☐ 2☐ 3-5☐ Days (additional charges)
TRRP 13 Report: Yes ☒ No ☐ (additional charges)
Analysis for Permit Compliance: Yes ☐ No ☒
DMR Form Required: Yes ☐ No ☐

LAB ID# (Do not use)	Sampling Date	Sampling Time	Composite	Grab	Matrix	FIELD ID #	FIELD DESCRIPTION	No. of Containers	VOCs	SVOCs	TAL Metals					REMARKS (Preservation, Size/Amount, Etc.)
909007-09	9/1/09	1019			Soil	B4	2-2.5	2	X	X	X					2 oz VOCs
909007-10		1046				B4	14-14.5	2		X	X					MS/MSD
909007-11		1047				B4	14.5-15	1	X							
909007-12		1242				B2	1-1.5	2	X	X	X					
909007-13		1215				B2	21-22.5	2	X	X	X					
909007-14	N/A	N/A				TB	Trip Blank	1								(Hold)

Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Phyllis Primrose	9/1/09	14:10	
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Relinquished by: (Signature / Print Name)	Date 9-2-9	Time 0805	Received for Laboratory by: (Signature)

Headspace	N/A		If Yes, Amt. Solid
Properly Sealed	Y		If No, Explain
Chilled ≤4° C	Y		If No, Temp. 3°C

Comments: refer to Work Plan for required methods + LORPs

From: Phyllis Primrose [phyllis@rcgtex.com]
Sent: Tuesday, September 01, 2009 9:16 PM
To: Don Williams
Cc: Greg Osuna; Reddy Gosala
Subject: LHAAP-19: Shipment of soil samples

Don-

Soil samples collected at LHAAP-19 were shipped today from my hotel to your lab via Lone Star Overnight. The samples are suppose to be delivered tomorrow (Wednesday). I indicated on the chain of custody which samples are to be analyzed as the MS/MSD for a particular analyte. Due to concerns with sample volumes, one sample can not be analyzed as the MS/MSD for all target COCs (ie VOCs, SVOCs, and metals).

Please let me know IMMEDIATELY if there are any issues with the samples. If you can not reach me, contact Greg Osuna at 210.404.1220.

Thank you.

Phyllis
RCG
2101 Colston Drive
Tyler, TX 75703
512.694.9326
www.rcgtex.com
Geoscientific work or services discussed herein are preliminary (DRAFT) and released for interim review under the authority of Phyllis Primrose, P.G. #2586. Any other use of this information without written consent from Phyllis Primrose is prohibited.

909007 - 05 = VOC MS/MSD

909007 - 10 = SVOC + Metals MS/MSD

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B1 0-1 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-05A **Time Received:** 8:05

Sample Time: 16:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		14			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW6010B													
Aluminum	7429-90-5	14900.0000			0.4630	2.5000	0.5384	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Antimony	7440-36-0	< 0.6628			0.5700	2.5000	0.6628	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Arsenic	7440-38-2	3.6600			0.6890	1.5000	0.8012	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Barium	7440-39-3	98.5000			0.2100	1.0000	0.2442	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Beryllium	7440-41-7	0.7210			0.0440	0.5000	0.0512	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cadmium	7440-43-9	< 0.0814			0.0700	0.5000	0.0814	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Calcium	7440-70-2	680.0000			1.5000	5.0000	1.7442	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Chromium	7440-47-3	27.2000			0.2210	1.0000	0.2570	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cobalt	7440-48-4	10.3000			0.3700	1.0000	0.4302	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Copper	7440-50-8	5.3400			0.4470	1.5000	0.5198	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Iron	7439-89-6	20900.0000			0.9820	5.0000	1.1419	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Lead	7439-92-1	13.6000			0.4500	1.0000	0.5233	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Magnesium	7439-95-4	869.0000			0.1860	1.0000	0.2163	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Manganese	7439-96-5	179.0000			5.3500	15.0000	6.2209	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Nickel	7440-02-0	7.9300			0.4790	1.0000	0.5570	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Potassium	7440-09-7	1090.0000			4.7100	10.0000	5.4767	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Selenium	7782-49-2	< 1.1512			0.9900	2.0000	1.1512	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Silver	7440-22-4	< 0.5581			0.4800	1.0000	0.5581	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Sodium	7440-23-5	68.5000			0.7500	2.0000	0.8721	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Strontium	7440-24-6	< 0.5000			0.4300	1.0000	0.5000	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Thallium	7440-28-0	< 1.6758			1.4700	5.0000	1.6758	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Vanadium	7440-62-2	16.6000			0.7500	2.0000	0.8721	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Zinc	7440-66-6	24.0000			0.4300	1.0000	0.5000	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2442			0.2100	0.5000	0.2442	mg/kg	9/9/2009	CR6_S-9/9/2009	20	SS	9/9/2009
SW7471A													
Mercury	7439-97-6	< 0.0215			0.0185	0.0400	0.0215	mg/Kg	9/8/2009 7:15:00 PM	HG_R_S-09/09/2009	1	DW	9/8/2009 2:00:00 PM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 0.9977			0.8580	5.0000	0.9977	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,1,1-Trichloroethane	71-55-6	< 1.3953			1.2000	5.0000	1.3953	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.6698			0.5760	5.0000	0.6698	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.0953			0.9420	5.0000	1.0953	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B1 0-1 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-05A **Time Received:** 8:05

Sample Time: 16:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1-Dichloroethane	74-34-3	< 1.0174			0.8750	5.0000	1.0174	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,1-Dichloroethene	75-35-4	< 1.1744			1.0100	5.0000	1.1744	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,1-Dichloropropene	563-58-6	< 0.7663			0.6590	5.0000	0.7663	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 0.9907			0.8520	5.0000	0.9907	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.2558			1.0800	5.0000	1.2558	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 2.9070			2.5000	5.0000	2.9070	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.7384			0.6350	5.0000	0.7384	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.6977			1.4600	5.0000	1.6977	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,2-Dibromoethane	106-93-4	< 0.8628			0.7420	5.0000	0.8628	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7198			0.6190	5.0000	0.7198	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,2-Dichloroethane	107-06-2	< 0.7849			0.6750	5.0000	0.7849	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,2-Dichloropropane	78-87-5	< 1.0047			0.8640	5.0000	1.0047	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 0.8605			0.7400	5.0000	0.8605	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.9105			0.7830	5.0000	0.9105	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,3-Dichloropropane	142-28-9	< 0.6756			0.5810	5.0000	0.6756	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.7372			0.6340	5.0000	0.7372	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
1-Chlorohexane	544-10-5	< 0.4919			0.4230	5.0000	0.4919	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
2,2-Dichloropropane	590-20-7	< 0.9256			0.7960	5.0000	0.9256	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
2-Butanone	78-93-3	< 0.4907			0.4220	10.0000	0.4907	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
2-Chlorotoluene	95-49-8	< 1.2209			1.0500	5.0000	1.2209	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
2-Hexanone	591-78-6	< 0.7628			0.6560	10.0000	0.7628	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
4-Chlorotoluene	106-43-4	< 0.9779			0.8410	5.0000	0.9779	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
4-Isopropyltoluene	99-87-6	< 2.5814			2.2200	5.0000	2.5814	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.6628			1.4300	10.0000	1.6628	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Acetone	67-64-1	< 1.3256			1.1400	10.0000	1.3256	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Allyl chloride	107-05-1	< 2.8023			2.4100	5.0000	2.8023	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Benzene	71-43-2	< 0.6733			0.5790	5.0000	0.6733	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Bromobenzene	108-86-1	< 1.2442			1.0700	5.0000	1.2442	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Bromochloromethane	74-97-5	< 1.1279			0.9700	5.0000	1.1279	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Bromodichloromethane	75-27-4	< 1.0453			0.8990	5.0000	1.0453	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Bromoform	75-25-2	< 0.7640			0.6570	5.0000	0.7640	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Bromomethane	74-83-9	< 2.0465			1.7600	5.0000	2.0465	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Carbon disulfide	75-15-0	< 1.3372			1.1500	5.0000	1.3372	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Carbon tetrachloride	56-23-5	< 0.8477			0.7290	5.0000	0.8477	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B1 0-1 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-05A **Time Received:** 8:05

Sample Time: 16:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Chlorobenzene	108-90-7	< 1.1256			0.9680	5.0000	1.1256	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Chloroethane	75-00-3	< 2.0000			1.7200	5.0000	2.0000	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Chloroform	67-66-3	< 1.1744			1.0100	5.0000	1.1744	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Chloromethane	74-87-3	< 3.5465			3.0500	5.0000	3.5465	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.0628			0.9140	5.0000	1.0628	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.1744			1.0100	5.0000	1.1744	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Dibromochloromethane	124-48-1	< 0.9174			0.7890	5.0000	0.9174	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Dibromomethane	74-95-3	< 1.5581			1.3400	5.0000	1.5581	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Dichlorodifluoromethane	75-71-8	< 1.9535			1.6800	5.0000	1.9535	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Ethylbenzene	100-41-4	< 0.9291			0.7990	5.0000	0.9291	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Hexachlorobutadiene	87-68-3	< 2.1860			1.8800	5.0000	2.1860	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Iodomethane	74-88-4	< 1.1977			1.0300	5.0000	1.1977	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Isopropylbenzene	98-82-8	< 1.2209			1.0500	5.0000	1.2209	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
m,p-Xylene	179601-23-	< 1.1744			1.0100	10.0000	1.1744	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Methyl tert-butyl ether	1634-04-4	< 0.9384			0.8070	5.0000	0.9384	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Methylene chloride	75-09-2	< 2.3256			2.0000	5.0000	2.3256	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
n-Butylbenzene	104-51-8	< 0.8233			0.7080	5.0000	0.8233	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
n-Propylbenzene	103-65-1	< 1.1209			0.9640	5.0000	1.1209	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Naphthalene	91-20-3	< 0.9872			0.8490	15.0000	0.9872	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
o-Xylene	95-47-6	< 0.9395			0.8080	5.0000	0.9395	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
sec-Butylbenzene	135-98-8	< 1.5465			1.3300	5.0000	1.5465	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Styrene	100-42-5	< 0.9709			0.8350	5.0000	0.9709	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
tert-Butylbenzene	98-06-6	< 1.2209			1.0500	5.0000	1.2209	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Tetrachloroethene	127-18-4	< 0.8593			0.7390	5.0000	0.8593	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Toluene	108-88-3	< 0.7151			0.6150	5.0000	0.7151	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.0384			0.8930	5.0000	1.0384	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.2326			1.0600	10.0000	1.2326	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Trichloroethene	79-01-6	< 0.8500			0.7310	5.0000	0.8500	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Trichlorofluoromethane	75-69-4	< 1.9651			1.6900	5.0000	1.9651	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
Vinyl chloride	75-01-4	< 1.0698			0.9200	2.0000	1.0698	ug/Kg	9/9/2009 7:33:00 PM	VOC1_090909A	1	VKG	9/9/2009 7:33:00 PM
SW8270C													
1,2-Diphenylhydrazine	122-66-7	< 10.7326			9.2300	33.3000	10.7326	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1547			0.1330	0.3300	0.1547	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 14.6512			12.6000	33.3000	14.6512	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B1 0-1 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-05A **Time Received:** 8:05

Sample Time: 16:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
1,2,4-Trichlorobenzene	120-82-1	< 0.0506			0.0435	0.3300	0.0506	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0729			0.0627	0.3300	0.0729	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 13.0233			11.2000	33.3000	13.0233	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0231			0.0199	0.3300	0.0231	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 24.3023			20.9000	66.7000	24.3023	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 21.1628			18.2000	66.7000	21.1628	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0812			0.0698	0.3300	0.0812	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0744			0.0640	0.3300	0.0744	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenylphenylether	101-55-3	< 10.4186			8.9600	33.3000	10.4186	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenylphenylether	7005-72-3	< 5.8721			5.0500	33.3000	5.8721	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.1977			0.1700	0.3300	0.1977	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 45.3488			39.0000	100.000	45.3488	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0224			0.0193	0.3300	0.0224	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 20.4651			17.6000	33.3000	20.4651	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0302			0.0260	0.3300	0.0302	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0484			0.0416	0.3300	0.0484	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 10.7674			9.2600	33.3000	10.7674	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0313			0.0269	0.3300	0.0313	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 14.0698			12.1000	33.3000	14.0698	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 15.3488			13.2000	33.3000	15.3488	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1279			0.1100	0.3300	0.1279	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 10.5581			9.0800	33.3000	10.5581	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0235			0.0202	0.3300	0.0235	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0484			0.0416	0.3300	0.0484	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 9.1744			7.8900	33.3000	9.1744	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 15.1163			13.0000	33.3000	15.1163	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0321			0.0276	0.3300	0.0321	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0388			0.0334	0.3300	0.0388	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 18.3721			15.8000	33.3000	18.3721	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0456			0.0392	0.3300	0.0456	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 11.7442			10.1000	33.3000	11.7442	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1628			0.1400	0.3300	0.1628	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 11.1512			9.5900	33.3000	11.1512	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0509			0.0438	0.3300	0.0509	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B1 0-1 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-05A **Time Received:** 8:05

Sample Time: 16:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Pentachlorophenol	87-86-5	< 48.8372			42.0000	100.000	48.8372	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0331			0.0285	0.3300	0.0331	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0336			0.0289	0.3300	0.0336	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0465			0.0400	0.3300	0.0465	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 0.1860			0.1600	0.3300	0.1860	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0820			0.0705	0.3300	0.0820	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1279			0.1100	0.3300	0.1279	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0385			0.0331	0.3300	0.0385	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0466			0.0401	0.3300	0.0466	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0487			0.0419	0.3300	0.0487	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0278			0.0239	0.3300	0.0278	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0609			0.0524	0.3300	0.0609	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1349			0.1160	0.3300	0.1349	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0685			0.0589	0.3300	0.0685	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1616			0.1390	0.3300	0.1616	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1407			0.1210	0.3300	0.1407	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1686			0.1450	0.3300	0.1686	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Aniline	62-53-3	< 0.2837			0.2440	0.6600	0.2837	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1279			0.1100	0.3300	0.1279	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 0.2907			0.2500	0.6600	0.2907	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0253			0.0218	0.3300	0.0253	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0655			0.0563	0.3300	0.0655	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0937			0.0806	0.3300	0.0937	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1279			0.1100	0.3300	0.1279	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0416			0.0358	0.3300	0.0416	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3302			0.2840	0.6600	0.3302	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1849			0.1590	0.6600	0.1849	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.1605			0.1380	0.3300	0.1605	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 14.592			12.800	100.000	14.592	ug/Kg	9/23/2009 5:44:00 AM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1709			0.1470	0.3300	0.1709	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1570			0.1350	0.3300	0.1570	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1593			0.1370	0.3300	0.1593	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1395			0.1200	0.3300	0.1395	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1465			0.1260	0.3300	0.1465	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B1 0-1 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-05A **Time Received:** 8:05

Sample Time: 16:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Di-n-octyl phthalate	117-84-0	< 0.1942			0.1670	0.3300	0.1942	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1453			0.1250	0.3300	0.1453	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Diethyl phthalate	84-66-2	< 0.1442			0.1240	0.3300	0.1442	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1488			0.1280	0.3300	0.1488	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.1008			0.0867	0.3300	0.1008	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1465			0.1260	0.3300	0.1465	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0872			0.0750	0.3300	0.0872	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1291			0.1110	0.3300	0.1291	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1430			0.1230	0.3300	0.1430	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1033			0.0888	0.3300	0.1033	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1120			0.0963	0.3300	0.1120	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1063			0.0914	0.3300	0.1063	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	0.5510			0.0650	0.3300	0.0756	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0869			0.0747	0.3300	0.0869	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0845			0.0727	0.3300	0.0845	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1663			0.1430	0.3300	0.1663	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1686			0.1450	0.3300	0.1686	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.1465			0.1260	0.3300	0.1465	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1114			0.0958	0.3300	0.1114	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenol	108-95-2	< 0.1640			0.1410	0.3300	0.1640	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0930			0.0800	0.3300	0.0930	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1837			0.1580	0.3300	0.1837	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2791			0.2400	0.6600	0.2791	mg/Kg	9/21/2009 6:34:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 0.4302			0.3700	1.0000	0.4302	mg/Kg	9/8/2009	CN_R_TS-9/8/2009	1	SS	9/8/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B3 2-3 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-07A **Time Received:** 8:05

Sample Time: 17:02 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		18			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW6010B													
Aluminum	7429-90-5	41500.0000			0.4630	2.5000	0.5660	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Antimony	7440-36-0	< 0.6968			0.5700	2.5000	0.6968	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Arsenic	7440-38-2	3.3900			0.6890	1.5000	0.8423	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Barium	7440-39-3	123.0000			0.2100	1.0000	0.2567	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Beryllium	7440-41-7	0.6360			0.0440	0.5000	0.0538	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cadmium	7440-43-9	< 0.0856			0.0700	0.5000	0.0856	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Calcium	7440-70-2	278.0000			1.5000	5.0000	1.8337	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Chromium	7440-47-3	27.5000			0.2210	1.0000	0.2702	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cobalt	7440-48-4	5.1800			0.3700	1.0000	0.4523	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Copper	7440-50-8	4.6500			0.4470	1.5000	0.5465	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Iron	7439-89-6	28900.0000			0.9820	5.0000	1.2005	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Lead	7439-92-1	13.7000			0.4500	1.0000	0.5501	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Magnesium	7439-95-4	2140.0000			0.1860	1.0000	0.2274	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Manganese	7439-96-5	24.9000			5.3500	15.0000	6.5403	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Nickel	7440-02-0	11.1000			0.4790	1.0000	0.5856	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Potassium	7440-09-7	1830.0000			4.7100	10.0000	5.7579	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Selenium	7782-49-2	< 1.2103			0.9900	2.0000	1.2103	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Silver	7440-22-4	< 0.5868			0.4800	1.0000	0.5868	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Sodium	7440-23-5	170.0000			0.7500	2.0000	0.9169	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Thallium	7440-28-0	< 1.7346			1.4700	5.0000	1.7346	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Vanadium	7440-62-2	43.2000			0.7500	2.0000	0.9169	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Zinc	7440-66-6	35.1000			0.4300	1.0000	0.5257	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2567			0.2100	0.5000	0.2567	mg/kg	9/9/2009	CR6_S-9/9/2009	20	SS	9/9/2009
SW7471A													
Mercury	7439-97-6	< 0.0226			0.0185	0.0400	0.0226	mg/Kg	9/8/2009 7:15:00 PM	HG_R_S-09/09/2009	1	DW	9/8/2009 2:00:00 PM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 1.0489			0.8580	5.0000	1.0489	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,1,1-Trichloroethane	71-55-6	< 1.4670			1.2000	5.0000	1.4670	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.7042			0.5760	5.0000	0.7042	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.1516			0.9420	5.0000	1.1516	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,1-Dichloroethane	74-34-3	< 1.0697			0.8750	5.0000	1.0697	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B3 2-3 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-07A **Time Received:** 8:05

Sample Time: 17:02 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1-Dichloroethene	75-35-4	< 1.2347			1.0100	5.0000	1.2347	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,1-Dichloropropene	563-58-6	< 0.8056			0.6590	5.0000	0.8056	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 1.0416			0.8520	5.0000	1.0416	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.3203			1.0800	5.0000	1.3203	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 3.0562			2.5000	5.0000	3.0562	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.7763			0.6350	5.0000	0.7763	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.7848			1.4600	5.0000	1.7848	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,2-Dibromoethane	106-93-4	< 0.9071			0.7420	5.0000	0.9071	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7567			0.6190	5.0000	0.7567	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,2-Dichloroethane	107-06-2	< 0.8252			0.6750	5.0000	0.8252	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,2-Dichloropropane	78-87-5	< 1.0562			0.8640	5.0000	1.0562	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 0.9046			0.7400	5.0000	0.9046	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.9572			0.7830	5.0000	0.9572	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,3-Dichloropropane	142-28-9	< 0.7103			0.5810	5.0000	0.7103	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.7751			0.6340	5.0000	0.7751	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
1-Chlorohexane	544-10-5	< 0.5171			0.4230	5.0000	0.5171	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
2,2-Dichloropropane	590-20-7	< 0.9731			0.7960	5.0000	0.9731	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
2-Butanone	78-93-3	< 0.5159			0.4220	10.0000	0.5159	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
2-Chlorotoluene	95-49-8	< 1.2836			1.0500	5.0000	1.2836	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
2-Hexanone	591-78-6	< 0.8020			0.6560	10.0000	0.8020	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
4-Chlorotoluene	106-43-4	< 1.0281			0.8410	5.0000	1.0281	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
4-Isopropyltoluene	99-87-6	< 2.7139			2.2200	5.0000	2.7139	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.7482			1.4300	10.0000	1.7482	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Acetone	67-64-1	< 1.3936			1.1400	10.0000	1.3936	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Allyl chloride	107-05-1	< 2.9462			2.4100	5.0000	2.9462	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Benzene	71-43-2	< 0.7078			0.5790	5.0000	0.7078	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Bromobenzene	108-86-1	< 1.3081			1.0700	5.0000	1.3081	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Bromochloromethane	74-97-5	< 1.1858			0.9700	5.0000	1.1858	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Bromodichloromethane	75-27-4	< 1.0990			0.8990	5.0000	1.0990	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Bromoform	75-25-2	< 0.8032			0.6570	5.0000	0.8032	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Bromomethane	74-83-9	< 2.1516			1.7600	5.0000	2.1516	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Carbon disulfide	75-15-0	< 1.4059			1.1500	5.0000	1.4059	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Carbon tetrachloride	56-23-5	< 0.8912			0.7290	5.0000	0.8912	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Chlorobenzene	108-90-7	< 1.1834			0.9680	5.0000	1.1834	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B3 2-3 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-07A **Time Received:** 8:05

Sample Time: 17:02 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Chloroethane	75-00-3	< 2.1027			1.7200	5.0000	2.1027	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Chloroform	67-66-3	< 1.2347			1.0100	5.0000	1.2347	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Chloromethane	74-87-3	< 3.7286			3.0500	5.0000	3.7286	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.1174			0.9140	5.0000	1.1174	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.2347			1.0100	5.0000	1.2347	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Dibromochloromethane	124-48-1	< 0.9645			0.7890	5.0000	0.9645	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Dibromomethane	74-95-3	< 1.6381			1.3400	5.0000	1.6381	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Dichlorodifluoromethane	75-71-8	< 2.0538			1.6800	5.0000	2.0538	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Ethylbenzene	100-41-4	< 0.9768			0.7990	5.0000	0.9768	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Hexachlorobutadiene	87-68-3	< 2.2983			1.8800	5.0000	2.2983	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Iodomethane	74-88-4	< 1.2592			1.0300	5.0000	1.2592	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Isopropylbenzene	98-82-8	< 1.2836			1.0500	5.0000	1.2836	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
m,p-Xylene	179601-23-	< 1.2347			1.0100	10.0000	1.2347	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Methyl tert-butyl ether	1634-04-4	< 0.9866			0.8070	5.0000	0.9866	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Methylene chloride	75-09-2	< 2.4450			2.0000	5.0000	2.4450	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
n-Butylbenzene	104-51-8	< 0.8655			0.7080	5.0000	0.8655	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
n-Propylbenzene	103-65-1	< 1.1785			0.9640	5.0000	1.1785	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Naphthalene	91-20-3	< 1.0379			0.8490	15.0000	1.0379	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
o-Xylene	95-47-6	< 0.9878			0.8080	5.0000	0.9878	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
sec-Butylbenzene	135-98-8	< 1.6259			1.3300	5.0000	1.6259	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Styrene	100-42-5	< 1.0208			0.8350	5.0000	1.0208	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
tert-Butylbenzene	98-06-6	< 1.2836			1.0500	5.0000	1.2836	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Tetrachloroethene	127-18-4	< 0.9034			0.7390	5.0000	0.9034	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Toluene	108-88-3	< 0.7518			0.6150	5.0000	0.7518	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.0917			0.8930	5.0000	1.0917	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.2958			1.0600	10.0000	1.2958	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Trichloroethene	79-01-6	< 0.8936			0.7310	5.0000	0.8936	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Trichlorofluoromethane	75-69-4	< 2.0660			1.6900	5.0000	2.0660	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
Vinyl chloride	75-01-4	< 1.1247			0.9200	2.0000	1.1247	ug/Kg	9/9/2009 9:44:00 PM	VOC1_090909A	1	VKG	9/9/2009 9:44:00 PM
SW8270C													
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1626			0.1330	0.3300	0.1626	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 11.2836			9.2300	33.3000	11.2836	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 15.4034			12.6000	33.3000	15.4034	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2,4-Trichlorobenzene	120-82-1	< 0.0532			0.0435	0.3300	0.0532	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B3 2-3 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-07A **Time Received:** 8:05

Sample Time: 17:02 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
2,6-Dinitrotoluene	606-20-2	< 13.6919			11.2000	33.3000	13.6919	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0767			0.0627	0.3300	0.0767	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0243			0.0199	0.3300	0.0243	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 25.5501			20.9000	66.7000	25.5501	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 22.2494			18.2000	66.7000	22.2494	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0853			0.0698	0.3300	0.0853	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0782			0.0640	0.3300	0.0782	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenylphenylether	101-55-3	< 10.9535			8.9600	33.3000	10.9535	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.2078			0.1700	0.3300	0.2078	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenylphenylether	7005-72-3	< 6.1736			5.0500	33.3000	6.1736	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 47.6773			39.0000	100.000	47.6773	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0236			0.0193	0.3300	0.0236	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 21.5159			17.6000	33.3000	21.5159	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0318			0.0260	0.3300	0.0318	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0509			0.0416	0.3300	0.0509	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 11.3203			9.2600	33.3000	11.3203	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0329			0.0269	0.3300	0.0329	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 14.7922			12.1000	33.3000	14.7922	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1345			0.1100	0.3300	0.1345	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 16.1369			13.2000	33.3000	16.1369	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0247			0.0202	0.3300	0.0247	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 11.1002			9.0800	33.3000	11.1002	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0509			0.0416	0.3300	0.0509	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 9.6455			7.8900	33.3000	9.6455	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0337			0.0276	0.3300	0.0337	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 15.8924			13.0000	33.3000	15.8924	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 19.3154			15.8000	33.3000	19.3154	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0408			0.0334	0.3300	0.0408	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0479			0.0392	0.3300	0.0479	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 12.3472			10.1000	33.3000	12.3472	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1711			0.1400	0.3300	0.1711	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 11.7237			9.5900	33.3000	11.7237	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0535			0.0438	0.3300	0.0535	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 51.3447			42.0000	100.000	51.3447	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B3 2-3 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-07A **Time Received:** 8:05

Sample Time: 17:02 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
2-Naphthylamine	91-59-8	< 0.0348			0.0285	0.3300	0.0348	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0353			0.0289	0.3300	0.0353	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0489			0.0400	0.3300	0.0489	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 0.1956			0.1600	0.3300	0.1956	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0862			0.0705	0.3300	0.0862	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1345			0.1100	0.3300	0.1345	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0405			0.0331	0.3300	0.0405	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0490			0.0401	0.3300	0.0490	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0512			0.0419	0.3300	0.0512	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0292			0.0239	0.3300	0.0292	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0641			0.0524	0.3300	0.0641	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1418			0.1160	0.3300	0.1418	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0720			0.0589	0.3300	0.0720	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1699			0.1390	0.3300	0.1699	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1479			0.1210	0.3300	0.1479	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1773			0.1450	0.3300	0.1773	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Aniline	62-53-3	< 0.2983			0.2440	0.6600	0.2983	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1345			0.1100	0.3300	0.1345	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 0.3056			0.2500	0.6600	0.3056	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0267			0.0218	0.3300	0.0267	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0688			0.0563	0.3300	0.0688	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0985			0.0806	0.3300	0.0985	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1345			0.1100	0.3300	0.1345	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0438			0.0358	0.3300	0.0438	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3472			0.2840	0.6600	0.3472	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1944			0.1590	0.6600	0.1944	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.1687			0.1380	0.3300	0.1687	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 15.104			12.800	100.00	15.104	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1797			0.1470	0.3300	0.1797	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1650			0.1350	0.3300	0.1650	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1675			0.1370	0.3300	0.1675	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1467			0.1200	0.3300	0.1467	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1540			0.1260	0.3300	0.1540	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-octyl phthalate	117-84-0	< 0.2042			0.1670	0.3300	0.2042	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B3 2-3 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-07A **Time Received:** 8:05

Sample Time: 17:02 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Dibenzofuran	132-64-9	< 0.1528			0.1250	0.3300	0.1528	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Diethyl phthalate	84-66-2	< 0.1516			0.1240	0.3300	0.1516	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1565			0.1280	0.3300	0.1565	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.1060			0.0867	0.3300	0.1060	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1540			0.1260	0.3300	0.1540	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0917			0.0750	0.3300	0.0917	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1357			0.1110	0.3300	0.1357	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1504			0.1230	0.3300	0.1504	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1086			0.0888	0.3300	0.1086	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1177			0.0963	0.3300	0.1177	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1117			0.0914	0.3300	0.1117	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0795			0.0650	0.3300	0.0795	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0913			0.0747	0.3300	0.0913	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0889			0.0727	0.3300	0.0889	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1748			0.1430	0.3300	0.1748	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1773			0.1450	0.3300	0.1773	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.1540			0.1260	0.3300	0.1540	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1171			0.0958	0.3300	0.1171	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenol	108-95-2	< 0.1724			0.1410	0.3300	0.1724	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0978			0.0800	0.3300	0.0978	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1932			0.1580	0.3300	0.1932	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2934			0.2400	0.6600	0.2934	mg/Kg	9/21/2009 1:17:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 0.4523			0.3700	1.0000	0.4523	mg/Kg	9/8/2009	CN_R_TS-9/8/2009	1	SS	9/8/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B3 12-13 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-08A **Time Received:** 8:05

Sample Time: 17:06 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		4			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW6010B													
Aluminum	7429-90-5	5880.0000			0.4630	2.5000	0.4842	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Antimony	7440-36-0	9.2200			0.5700	2.5000	0.5960	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Arsenic	7440-38-2	< 0.7205			0.6890	1.5000	0.7205	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Barium	7440-39-3	34.6000			0.2100	1.0000	0.2196	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Beryllium	7440-41-7	0.6270			0.0440	0.5000	0.0460	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cadmium	7440-43-9	< 0.0732			0.0700	0.5000	0.0732	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Calcium	7440-70-2	448.0000			1.5000	5.0000	1.5685	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Chromium	7440-47-3	8.9400			0.2210	1.0000	0.2311	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cobalt	7440-48-4	7.3200			0.3700	1.0000	0.3869	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Copper	7440-50-8	2.9500			0.4470	1.5000	0.4674	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Iron	7439-89-6	10900.0000			0.9820	5.0000	1.0269	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Lead	7439-92-1	4.7000			0.4500	1.0000	0.4706	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Magnesium	7439-95-4	2180.0000			0.1860	1.0000	0.1945	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Manganese	7439-96-5	80.1000			5.3500	15.0000	5.5945	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Nickel	7440-02-0	7.5800			0.4790	1.0000	0.5009	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Potassium	7440-09-7	2310.0000			4.7100	10.0000	4.9252	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Selenium	7782-49-2	< 1.0352			0.9900	2.0000	1.0352	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Silver	7440-22-4	< 0.5019			0.4800	1.0000	0.5019	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Sodium	7440-23-5	252.0000			0.7500	2.0000	0.7843	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Thallium	7440-28-0	< 1.5288			1.4700	5.0000	1.5288	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Vanadium	7440-62-2	< 0.7843			0.7500	2.0000	0.7843	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Zinc	7440-66-6	17.3000			0.4300	1.0000	0.4496	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2196			0.2100	0.5000	0.2196	mg/kg	9/9/2009	CR6_S-9/9/2009	20	SS	9/9/2009
SW7471A													
Mercury	7439-97-6	< 0.0193			0.0185	0.0400	0.0193	mg/Kg	9/8/2009 7:15:00 PM	HG_R_S-09/09/2009	1	DW	9/8/2009 2:00:00 PM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 0.8972			0.8580	5.0000	0.8972	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,1,1-Trichloroethane	71-55-6	< 1.2548			1.2000	5.0000	1.2548	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.6023			0.5760	5.0000	0.6023	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,1,2-Trichloroethane	79-00-5	< 0.9850			0.9420	5.0000	0.9850	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,1-Dichloroethane	74-34-3	< 0.9150			0.8750	5.0000	0.9150	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B3 12-13 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-08A **Time Received:** 8:05

Sample Time: 17:06 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1-Dichloroethene	75-35-4	< 1.0562			1.0100	5.0000	1.0562	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,1-Dichloropropene	563-58-6	< 0.6891			0.6590	5.0000	0.6891	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 0.8909			0.8520	5.0000	0.8909	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.1294			1.0800	5.0000	1.1294	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 2.6142			2.5000	5.0000	2.6142	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.6640			0.6350	5.0000	0.6640	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.5267			1.4600	5.0000	1.5267	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,2-Dibromoethane	106-93-4	< 0.7759			0.7420	5.0000	0.7759	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.6473			0.6190	5.0000	0.6473	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,2-Dichloroethane	107-06-2	< 0.7058			0.6750	5.0000	0.7058	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,2-Dichloropropane	78-87-5	< 0.9035			0.8640	5.0000	0.9035	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 0.7738			0.7400	5.0000	0.7738	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.8188			0.7830	5.0000	0.8188	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,3-Dichloropropane	142-28-9	< 0.6075			0.5810	5.0000	0.6075	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.6630			0.6340	5.0000	0.6630	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
1-Chlorohexane	544-10-5	< 0.4423			0.4230	5.0000	0.4423	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
2,2-Dichloropropane	590-20-7	< 0.8324			0.7960	5.0000	0.8324	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
2-Butanone	78-93-3	< 0.4413			0.4220	10.0000	0.4413	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
2-Chlorotoluene	95-49-8	< 1.0980			1.0500	5.0000	1.0980	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
2-Hexanone	591-78-6	< 0.6860			0.6560	10.0000	0.6860	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
4-Chlorotoluene	106-43-4	< 0.8794			0.8410	5.0000	0.8794	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
4-Isopropyltoluene	99-87-6	< 2.3214			2.2200	5.0000	2.3214	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.4953			1.4300	10.0000	1.4953	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Acetone	67-64-1	< 1.1921			1.1400	10.0000	1.1921	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Allyl chloride	107-05-1	< 2.5201			2.4100	5.0000	2.5201	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Benzene	71-43-2	< 0.6055			0.5790	5.0000	0.6055	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Bromobenzene	108-86-1	< 1.1189			1.0700	5.0000	1.1189	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Bromochloromethane	74-97-5	< 1.0143			0.9700	5.0000	1.0143	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Bromodichloromethane	75-27-4	< 0.9401			0.8990	5.0000	0.9401	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Bromoform	75-25-2	< 0.6870			0.6570	5.0000	0.6870	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Bromomethane	74-83-9	< 1.8404			1.7600	5.0000	1.8404	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Carbon disulfide	75-15-0	< 1.2026			1.1500	5.0000	1.2026	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Carbon tetrachloride	56-23-5	< 0.7623			0.7290	5.0000	0.7623	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Chlorobenzene	108-90-7	< 1.0122			0.9680	5.0000	1.0122	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B3 12-13 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-08A **Time Received:** 8:05

Sample Time: 17:06 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Chloroethane	75-00-3	< 1.7986			1.7200	5.0000	1.7986	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Chloroform	67-66-3	< 1.0562			1.0100	5.0000	1.0562	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Chloromethane	74-87-3	< 3.1894			3.0500	5.0000	3.1894	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
cis-1,2-Dichloroethene	156-59-2	< 0.9558			0.9140	5.0000	0.9558	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.0562			1.0100	5.0000	1.0562	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Dibromochloromethane	124-48-1	< 0.8251			0.7890	5.0000	0.8251	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Dibromomethane	74-95-3	< 1.4012			1.3400	5.0000	1.4012	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Dichlorodifluoromethane	75-71-8	< 1.7568			1.6800	5.0000	1.7568	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Ethylbenzene	100-41-4	< 0.8355			0.7990	5.0000	0.8355	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Hexachlorobutadiene	87-68-3	< 1.9659			1.8800	5.0000	1.9659	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Iodomethane	74-88-4	< 1.0771			1.0300	5.0000	1.0771	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Isopropylbenzene	98-82-8	< 1.0980			1.0500	5.0000	1.0980	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
m,p-Xylene	179601-23-	< 1.0562			1.0100	10.0000	1.0562	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Methyl tert-butyl ether	1634-04-4	< 0.8439			0.8070	5.0000	0.8439	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Methylene chloride	75-09-2	< 2.0914			2.0000	5.0000	2.0914	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
n-Butylbenzene	104-51-8	< 0.7404			0.7080	5.0000	0.7404	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
n-Propylbenzene	103-65-1	< 1.0081			0.9640	5.0000	1.0081	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Naphthalene	91-20-3	< 0.8878			0.8490	15.0000	0.8878	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
o-Xylene	95-47-6	< 0.8449			0.8080	5.0000	0.8449	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
sec-Butylbenzene	135-98-8	< 1.3908			1.3300	5.0000	1.3908	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Styrene	100-42-5	< 0.8732			0.8350	5.0000	0.8732	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
tert-Butylbenzene	98-06-6	< 1.0980			1.0500	5.0000	1.0980	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Tetrachloroethene	127-18-4	< 0.7728			0.7390	5.0000	0.7728	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Toluene	108-88-3	< 0.6431			0.6150	5.0000	0.6431	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
trans-1,2-Dichloroethene	156-60-5	< 0.9338			0.8930	5.0000	0.9338	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.1084			1.0600	10.0000	1.1084	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Trichloroethene	79-01-6	< 0.7644			0.7310	5.0000	0.7644	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Trichlorofluoromethane	75-69-4	< 1.7672			1.6900	5.0000	1.7672	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
Vinyl chloride	75-01-4	< 0.9620			0.9200	2.0000	0.9620	ug/Kg	9/9/2009 10:28:00 PM	VOC1_090909A	1	VKG	9/9/2009 10:28:00 PM
SW8270C													
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1391			0.1330	0.3300	0.1391	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 9.6518			9.2300	33.3000	9.6518	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 13.1758			12.6000	33.3000	13.1758	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2,4-Trichlorobenzene	120-82-1	< 0.0455			0.0435	0.3300	0.0455	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B3 12-13 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-08A **Time Received:** 8:05

Sample Time: 17:06 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
2,6-Dinitrotoluene	606-20-2	< 11.7118			11.2000	33.3000	11.7118	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0656			0.0627	0.3300	0.0656	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0208			0.0199	0.3300	0.0208	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 21.8551			20.9000	66.7000	21.8551	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 19.0317			18.2000	66.7000	19.0317	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0730			0.0698	0.3300	0.0730	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0669			0.0640	0.3300	0.0669	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenylphenylether	101-55-3	< 9.3694			8.9600	33.3000	9.3694	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.1778			0.1700	0.3300	0.1778	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenylphenylether	7005-72-3	< 5.2808			5.0500	33.3000	5.2808	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 40.7822			39.0000	100.000	40.7822	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0202			0.0193	0.3300	0.0202	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 18.4043			17.6000	33.3000	18.4043	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0272			0.0260	0.3300	0.0272	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0435			0.0416	0.3300	0.0435	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 9.6832			9.2600	33.3000	9.6832	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0281			0.0269	0.3300	0.0281	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 12.6529			12.1000	33.3000	12.6529	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1150			0.1100	0.3300	0.1150	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 13.8032			13.2000	33.3000	13.8032	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0211			0.0202	0.3300	0.0211	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 9.4949			9.0800	33.3000	9.4949	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0435			0.0416	0.3300	0.0435	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 8.2505			7.8900	33.3000	8.2505	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0289			0.0276	0.3300	0.0289	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 13.5941			13.0000	33.3000	13.5941	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 16.5220			15.8000	33.3000	16.5220	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0349			0.0334	0.3300	0.0349	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0410			0.0392	0.3300	0.0410	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 10.5615			10.1000	33.3000	10.5615	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1464			0.1400	0.3300	0.1464	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 10.0282			9.5900	33.3000	10.0282	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0458			0.0438	0.3300	0.0458	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 43.9193			42.0000	100.000	43.9193	ug/Kg	9/22/2009 9:37:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B3 12-13 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-08A **Time Received:** 8:05

Sample Time: 17:06 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
2-Naphthylamine	91-59-8	< 0.0298			0.0285	0.3300	0.0298	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0302			0.0289	0.3300	0.0302	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0418			0.0400	0.3300	0.0418	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 0.1673			0.1600	0.3300	0.1673	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0737			0.0705	0.3300	0.0737	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1150			0.1100	0.3300	0.1150	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0346			0.0331	0.3300	0.0346	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0419			0.0401	0.3300	0.0419	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0438			0.0419	0.3300	0.0438	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0250			0.0239	0.3300	0.0250	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0548			0.0524	0.3300	0.0548	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1213			0.1160	0.3300	0.1213	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0616			0.0589	0.3300	0.0616	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1454			0.1390	0.3300	0.1454	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1265			0.1210	0.3300	0.1265	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1516			0.1450	0.3300	0.1516	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Aniline	62-53-3	< 0.2552			0.2440	0.6600	0.2552	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1150			0.1100	0.3300	0.1150	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 0.2614			0.2500	0.6600	0.2614	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0228			0.0218	0.3300	0.0228	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0589			0.0563	0.3300	0.0589	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0843			0.0806	0.3300	0.0843	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1150			0.1100	0.3300	0.1150	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0374			0.0358	0.3300	0.0374	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.2970			0.2840	0.6600	0.2970	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1663			0.1590	0.6600	0.1663	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.1443			0.1380	0.3300	0.1443	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 13.312			12.800	100.00	13.312	ug/Kg	9/22/2009 9:00:00 PM	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1537			0.1470	0.3300	0.1537	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1412			0.1350	0.3300	0.1412	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1433			0.1370	0.3300	0.1433	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1255			0.1200	0.3300	0.1255	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1318			0.1260	0.3300	0.1318	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-octyl phthalate	117-84-0	< 0.1746			0.1670	0.3300	0.1746	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B3 12-13 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 8/31/2009 **Alamo Lab ID:** 0909007-08A **Time Received:** 8:05

Sample Time: 17:06 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Dibenzofuran	132-64-9	< 0.1307			0.1250	0.3300	0.1307	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Diethyl phthalate	84-66-2	< 0.1297			0.1240	0.3300	0.1297	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1338			0.1280	0.3300	0.1338	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.0907			0.0867	0.3300	0.0907	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1318			0.1260	0.3300	0.1318	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0784			0.0750	0.3300	0.0784	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1161			0.1110	0.3300	0.1161	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1286			0.1230	0.3300	0.1286	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.0929			0.0888	0.3300	0.0929	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1007			0.0963	0.3300	0.1007	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Isophorone	78-59-1	< 0.0956			0.0914	0.3300	0.0956	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0680			0.0650	0.3300	0.0680	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0781			0.0747	0.3300	0.0781	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0760			0.0727	0.3300	0.0760	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1495			0.1430	0.3300	0.1495	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1516			0.1450	0.3300	0.1516	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.1318			0.1260	0.3300	0.1318	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1002			0.0958	0.3300	0.1002	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenol	108-95-2	< 0.1474			0.1410	0.3300	0.1474	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0837			0.0800	0.3300	0.0837	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1652			0.1580	0.3300	0.1652	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2510			0.2400	0.6600	0.2510	mg/Kg	9/21/2009 2:10:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 0.3869			0.3700	1.0000	0.3869	mg/Kg	9/8/2009	CN_R_TS-9/8/2009	1	SS	9/8/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B4 2-2.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-09A **Time Received:** 8:05

Sample Time: 10:19 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		21			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW6010B													
Aluminum	7429-90-5	20600.0000			0.4630	2.5000	0.5868	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Antimony	7440-36-0	< 0.7224			0.5700	2.5000	0.7224	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Arsenic	7440-38-2	3.1800			0.6890	1.5000	0.8733	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Barium	7440-39-3	162.0000			0.2100	1.0000	0.2662	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Beryllium	7440-41-7	0.7600			0.0440	0.5000	0.0558	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cadmium	7440-43-9	< 0.0887			0.0700	0.5000	0.0887	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Calcium	7440-70-2	185.0000			1.5000	5.0000	1.9011	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Chromium	7440-47-3	28.4000			0.2210	1.0000	0.2801	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cobalt	7440-48-4	7.1600			0.3700	1.0000	0.4689	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Copper	7440-50-8	6.4600			0.4470	1.5000	0.5665	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Iron	7439-89-6	29300.0000			0.9820	5.0000	1.2446	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Lead	7439-92-1	16.0000			0.4500	1.0000	0.5703	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Magnesium	7439-95-4	3990.0000			0.1860	1.0000	0.2357	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Manganese	7439-96-5	26.6000			5.3500	15.0000	6.7807	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Nickel	7440-02-0	10.5000			0.4790	1.0000	0.6071	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Potassium	7440-09-7	47.4000			4.7100	10.0000	5.9696	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Selenium	7782-49-2	< 1.2548			0.9900	2.0000	1.2548	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Silver	7440-22-4	< 0.6084			0.4800	1.0000	0.6084	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Sodium	7440-23-5	221.0000			0.7500	2.0000	0.9506	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Thallium	7440-28-0	< 1.7787			1.4700	5.0000	1.7787	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Vanadium	7440-62-2	< 0.9506			0.7500	2.0000	0.9506	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Zinc	7440-66-6	44.4000			0.4300	1.0000	0.5450	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2662			0.2100	0.5000	0.2662	mg/kg	9/9/2009	CR6_S-9/9/2009	20	SS	9/9/2009
SW7471A													
Mercury	7439-97-6	< 0.0234			0.0185	0.0400	0.0234	mg/Kg	9/8/2009 7:15:00 PM	HG_R_S-09/09/2009	1	DW	9/8/2009 2:00:00 PM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 1.0875			0.8580	5.0000	1.0875	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,1,1-Trichloroethane	71-55-6	< 1.5209			1.2000	5.0000	1.5209	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.7300			0.5760	5.0000	0.7300	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.1939			0.9420	5.0000	1.1939	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,1-Dichloroethane	74-34-3	< 1.1090			0.8750	5.0000	1.1090	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B4 2-2.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-09A **Time Received:** 8:05

Sample Time: 10:19 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1-Dichloroethene	75-35-4	< 1.2801			1.0100	5.0000	1.2801	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,1-Dichloropropene	563-58-6	< 0.8352			0.6590	5.0000	0.8352	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 1.0798			0.8520	5.0000	1.0798	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.3688			1.0800	5.0000	1.3688	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 3.1686			2.5000	5.0000	3.1686	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.8048			0.6350	5.0000	0.8048	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.8504			1.4600	5.0000	1.8504	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,2-Dibromoethane	106-93-4	< 0.9404			0.7420	5.0000	0.9404	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7845			0.6190	5.0000	0.7845	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,2-Dichloroethane	107-06-2	< 0.8555			0.6750	5.0000	0.8555	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,2-Dichloropropane	78-87-5	< 1.0951			0.8640	5.0000	1.0951	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 0.9379			0.7400	5.0000	0.9379	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.9924			0.7830	5.0000	0.9924	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,3-Dichloropropane	142-28-9	< 0.7364			0.5810	5.0000	0.7364	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.8035			0.6340	5.0000	0.8035	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
1-Chlorohexane	544-10-5	< 0.5361			0.4230	5.0000	0.5361	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
2,2-Dichloropropane	590-20-7	< 1.0089			0.7960	5.0000	1.0089	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
2-Butanone	78-93-3	< 0.5349			0.4220	10.0000	0.5349	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
2-Chlorotoluene	95-49-8	< 1.3308			1.0500	5.0000	1.3308	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
2-Hexanone	591-78-6	< 0.8314			0.6560	10.0000	0.8314	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
4-Chlorotoluene	106-43-4	< 1.0659			0.8410	5.0000	1.0659	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
4-Isopropyltoluene	99-87-6	< 2.8137			2.2200	5.0000	2.8137	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.8124			1.4300	10.0000	1.8124	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Acetone	67-64-1	< 1.4449			1.1400	10.0000	1.4449	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Allyl chloride	107-05-1	< 3.0545			2.4100	5.0000	3.0545	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Benzene	71-43-2	< 0.7338			0.5790	5.0000	0.7338	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Bromobenzene	108-86-1	< 1.3561			1.0700	5.0000	1.3561	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Bromochloromethane	74-97-5	< 1.2294			0.9700	5.0000	1.2294	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Bromodichloromethane	75-27-4	< 1.1394			0.8990	5.0000	1.1394	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Bromoform	75-25-2	< 0.8327			0.6570	5.0000	0.8327	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Bromomethane	74-83-9	< 2.2307			1.7600	5.0000	2.2307	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Carbon disulfide	75-15-0	< 1.4575			1.1500	5.0000	1.4575	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Carbon tetrachloride	56-23-5	< 0.9240			0.7290	5.0000	0.9240	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Chlorobenzene	108-90-7	< 1.2269			0.9680	5.0000	1.2269	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B4 2-2.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-09A **Time Received:** 8:05

Sample Time: 10:19 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Chloroethane	75-00-3	< 2.1800			1.7200	5.0000	2.1800	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Chloroform	67-66-3	< 1.2801			1.0100	5.0000	1.2801	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Chloromethane	74-87-3	< 3.8657			3.0500	5.0000	3.8657	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.1584			0.9140	5.0000	1.1584	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.2801			1.0100	5.0000	1.2801	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Dibromochloromethane	124-48-1	< 1.0000			0.7890	5.0000	1.0000	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Dibromomethane	74-95-3	< 1.6984			1.3400	5.0000	1.6984	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Dichlorodifluoromethane	75-71-8	< 2.1293			1.6800	5.0000	2.1293	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Ethylbenzene	100-41-4	< 1.0127			0.7990	5.0000	1.0127	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Hexachlorobutadiene	87-68-3	< 2.3828			1.8800	5.0000	2.3828	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Iodomethane	74-88-4	< 1.3054			1.0300	5.0000	1.3054	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Isopropylbenzene	98-82-8	< 1.3308			1.0500	5.0000	1.3308	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
m,p-Xylene	179601-23-	< 1.2801			1.0100	10.0000	1.2801	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Methyl tert-butyl ether	1634-04-4	< 1.0228			0.8070	5.0000	1.0228	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Methylene chloride	75-09-2	< 2.5349			2.0000	5.0000	2.5349	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
n-Butylbenzene	104-51-8	< 0.8973			0.7080	5.0000	0.8973	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
n-Propylbenzene	103-65-1	< 1.2218			0.9640	5.0000	1.2218	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Naphthalene	91-20-3	< 1.0760			0.8490	15.0000	1.0760	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
o-Xylene	95-47-6	< 1.0241			0.8080	5.0000	1.0241	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
sec-Butylbenzene	135-98-8	< 1.6857			1.3300	5.0000	1.6857	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Styrene	100-42-5	< 1.0583			0.8350	5.0000	1.0583	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
tert-Butylbenzene	98-06-6	< 1.3308			1.0500	5.0000	1.3308	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Tetrachloroethene	127-18-4	< 0.9366			0.7390	5.0000	0.9366	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Toluene	108-88-3	< 0.7795			0.6150	5.0000	0.7795	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.1318			0.8930	5.0000	1.1318	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.3435			1.0600	10.0000	1.3435	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Trichloroethene	79-01-6	< 0.9265			0.7310	5.0000	0.9265	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Trichlorofluoromethane	75-69-4	< 2.1420			1.6900	5.0000	2.1420	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
Vinyl chloride	75-01-4	< 1.1660			0.9200	2.0000	1.1660	ug/Kg	9/9/2009 11:11:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:11:00 PM
SW8270C													
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1686			0.1330	0.3300	0.1686	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 11.6984			9.2300	33.3000	11.6984	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 15.9696			12.6000	33.3000	15.9696	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2,4-Trichlorobenzene	120-82-1	< 0.0551			0.0435	0.3300	0.0551	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B4 2-2.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-09A **Time Received:** 8:05

Sample Time: 10:19 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
2,6-Dinitrotoluene	606-20-2	< 14.1952			11.2000	33.3000	14.1952	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0795			0.0627	0.3300	0.0795	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0252			0.0199	0.3300	0.0252	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 26.4892			20.9000	66.7000	26.4892	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 23.0672			18.2000	66.7000	23.0672	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0885			0.0698	0.3300	0.0885	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0811			0.0640	0.3300	0.0811	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenylphenylether	101-55-3	< 11.3561			8.9600	33.3000	11.3561	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.2155			0.1700	0.3300	0.2155	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenylphenylether	7005-72-3	< 6.4005			5.0500	33.3000	6.4005	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 49.4297			39.0000	100.000	49.4297	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0245			0.0193	0.3300	0.0245	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 22.3067			17.6000	33.3000	22.3067	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0330			0.0260	0.3300	0.0330	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0527			0.0416	0.3300	0.0527	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 11.7364			9.2600	33.3000	11.7364	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0341			0.0269	0.3300	0.0341	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 15.3359			12.1000	33.3000	15.3359	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1394			0.1100	0.3300	0.1394	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 16.7300			13.2000	33.3000	16.7300	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0256			0.0202	0.3300	0.0256	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 11.5082			9.0800	33.3000	11.5082	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0527			0.0416	0.3300	0.0527	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 10.0000			7.8900	33.3000	10.0000	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0350			0.0276	0.3300	0.0350	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 16.4766			13.0000	33.3000	16.4766	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 20.0253			15.8000	33.3000	20.0253	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0423			0.0334	0.3300	0.0423	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0497			0.0392	0.3300	0.0497	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 12.8010			10.1000	33.3000	12.8010	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1774			0.1400	0.3300	0.1774	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 12.1546			9.5900	33.3000	12.1546	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0555			0.0438	0.3300	0.0555	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 53.2319			42.0000	100.000	53.2319	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B4 2-2.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-09A **Time Received:** 8:05

Sample Time: 10:19 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
2-Naphthylamine	91-59-8	< 0.0361			0.0285	0.3300	0.0361	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0366			0.0289	0.3300	0.0366	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0507			0.0400	0.3300	0.0507	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 0.2028			0.1600	0.3300	0.2028	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0894			0.0705	0.3300	0.0894	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1394			0.1100	0.3300	0.1394	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0420			0.0331	0.3300	0.0420	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0508			0.0401	0.3300	0.0508	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0531			0.0419	0.3300	0.0531	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0303			0.0239	0.3300	0.0303	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0664			0.0524	0.3300	0.0664	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1470			0.1160	0.3300	0.1470	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0747			0.0589	0.3300	0.0747	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1762			0.1390	0.3300	0.1762	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1534			0.1210	0.3300	0.1534	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1838			0.1450	0.3300	0.1838	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Aniline	62-53-3	< 0.3093			0.2440	0.6600	0.3093	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1394			0.1100	0.3300	0.1394	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 0.3169			0.2500	0.6600	0.3169	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0276			0.0218	0.3300	0.0276	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0714			0.0563	0.3300	0.0714	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.1022			0.0806	0.3300	0.1022	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1394			0.1100	0.3300	0.1394	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0454			0.0358	0.3300	0.0454	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3599			0.2840	0.6600	0.3599	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.2015			0.1590	0.6600	0.2015	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.1749			0.1380	0.3300	0.1749	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 15.488			12.800	100.00	15.488	ug/Kg	9/22/2009 10:14:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1863			0.1470	0.3300	0.1863	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1711			0.1350	0.3300	0.1711	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1736			0.1370	0.3300	0.1736	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1521			0.1200	0.3300	0.1521	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1597			0.1260	0.3300	0.1597	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-octyl phthalate	117-84-0	< 0.2117			0.1670	0.3300	0.2117	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B4 2-2.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-09A **Time Received:** 8:05

Sample Time: 10:19 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Dibenzofuran	132-64-9	< 0.1584			0.1250	0.3300	0.1584	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Diethyl phthalate	84-66-2	< 0.1572			0.1240	0.3300	0.1572	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1622			0.1280	0.3300	0.1622	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.1099			0.0867	0.3300	0.1099	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1597			0.1260	0.3300	0.1597	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0951			0.0750	0.3300	0.0951	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1407			0.1110	0.3300	0.1407	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1559			0.1230	0.3300	0.1559	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1125			0.0888	0.3300	0.1125	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1221			0.0963	0.3300	0.1221	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1158			0.0914	0.3300	0.1158	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	0.4010			0.0650	0.3300	0.0824	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0947			0.0747	0.3300	0.0947	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0921			0.0727	0.3300	0.0921	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1812			0.1430	0.3300	0.1812	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1838			0.1450	0.3300	0.1838	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.1597			0.1260	0.3300	0.1597	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1214			0.0958	0.3300	0.1214	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenol	108-95-2	< 0.1787			0.1410	0.3300	0.1787	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyrene	129-00-0	< 0.1014			0.0800	0.3300	0.1014	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyridine	110-86-1	< 0.2003			0.1580	0.3300	0.2003	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.3042			0.2400	0.6600	0.3042	mg/Kg	9/21/2009 2:53:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 0.4689			0.3700	1.0000	0.4689	mg/Kg	9/8/2009	CN_R_TS-9/8/2009	1	SS	9/8/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B4 14-14.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-10A **Time Received:** 8:05

Sample Time: 10:46 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		15			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW6010B													
Aluminum	7429-90-5	19000.0000			0.4630	2.5000	0.5434	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Antimony	7440-36-0	< 0.6690			0.5700	2.5000	0.6690	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Arsenic	7440-38-2	4.3900			0.6890	1.5000	0.8087	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Barium	7440-39-3	181.0000			0.2100	1.0000	0.2465	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Beryllium	7440-41-7	0.9270			0.0440	0.5000	0.0516	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cadmium	7440-43-9	< 0.0822			0.0700	0.5000	0.0822	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Calcium	7440-70-2	1790.0000			1.5000	5.0000	1.7606	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Chromium	7440-47-3	21.0000			0.2210	1.0000	0.2594	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cobalt	7440-48-4	14.7000			0.3700	1.0000	0.4343	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Copper	7440-50-8	10.1000			0.4470	1.5000	0.5246	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Iron	7439-89-6	29900.0000			0.9820	5.0000	1.1526	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Lead	7439-92-1	8.7200			0.4500	1.0000	0.5282	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Magnesium	7439-95-4	3190.0000			0.1860	1.0000	0.2183	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Manganese	7439-96-5	257.0000			5.3500	15.0000	6.2793	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Nickel	7440-02-0	37.4000			0.4790	1.0000	0.5622	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Potassium	7440-09-7	696.0000			4.7100	10.0000	5.5282	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Selenium	7782-49-2	< 1.1620			0.9900	2.0000	1.1620	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Silver	7440-22-4	< 0.5634			0.4800	1.0000	0.5634	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Sodium	7440-23-5	724.0000			0.7500	2.0000	0.8803	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Thallium	7440-28-0	< 1.6905			1.4700	5.0000	1.6905	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Vanadium	7440-62-2	18.3000			0.7500	2.0000	0.8803	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Zinc	7440-66-6	50.4000			0.4300	1.0000	0.5047	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2465			0.2100	0.5000	0.2465	mg/kg	9/9/2009	CR6_S-9/9/2009	20	SS	9/9/2009
SW7471A													
Mercury	7439-97-6	< 0.0217			0.0185	0.0400	0.0217	mg/Kg	9/8/2009 7:15:00 PM	HG_R_S-09/09/2009	1	DW	9/8/2009 2:00:00 PM
SW8270C													
1,2-Diphenylhydrazine	122-66-7	< 10.8333			9.2300	33.3000	10.8333	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1561			0.1330	0.3300	0.1561	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2,4-Trichlorobenzene	120-82-1	< 0.0511			0.0435	0.3300	0.0511	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 14.7887			12.6000	33.3000	14.7887	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 13.1455			11.2000	33.3000	13.1455	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAp19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B4 14-14.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-10A **Time Received:** 8:05

Sample Time: 10:46 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
1,2-Dichlorobenzene	95-50-1	< 0.0736			0.0627	0.3300	0.0736	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 24.5305			20.9000	66.7000	24.5305	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0234			0.0199	0.3300	0.0234	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0819			0.0698	0.3300	0.0819	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 21.3615			18.2000	66.7000	21.3615	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0751			0.0640	0.3300	0.0751	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenylphenylether	101-55-3	< 10.5164			8.9600	33.3000	10.5164	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.1995			0.1700	0.3300	0.1995	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenylphenylether	7005-72-3	< 5.9272			5.0500	33.3000	5.9272	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0227			0.0193	0.3300	0.0227	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 45.7746			39.0000	100.000	45.7746	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0305			0.0260	0.3300	0.0305	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 20.6573			17.6000	33.3000	20.6573	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 10.8685			9.2600	33.3000	10.8685	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0488			0.0416	0.3300	0.0488	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0316			0.0269	0.3300	0.0316	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 14.2019			12.1000	33.3000	14.2019	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1291			0.1100	0.3300	0.1291	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 15.4930			13.2000	33.3000	15.4930	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0237			0.0202	0.3300	0.0237	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 10.6573			9.0800	33.3000	10.6573	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0488			0.0416	0.3300	0.0488	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 9.2606			7.8900	33.3000	9.2606	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0324			0.0276	0.3300	0.0324	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 15.2582			13.0000	33.3000	15.2582	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 18.5446			15.8000	33.3000	18.5446	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0392			0.0334	0.3300	0.0392	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 11.8545			10.1000	33.3000	11.8545	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0460			0.0392	0.3300	0.0460	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1643			0.1400	0.3300	0.1643	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 11.2559			9.5900	33.3000	11.2559	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0514			0.0438	0.3300	0.0514	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 49.2958			42.0000	100.000	49.2958	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0335			0.0285	0.3300	0.0335	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B4 14-14.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-10A **Time Received:** 8:05

Sample Time: 10:46 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
2-Nitroaniline	88-74-4	< 0.0339			0.0289	0.3300	0.0339	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0469			0.0400	0.3300	0.0469	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 0.1878			0.1600	0.3300	0.1878	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0827			0.0705	0.3300	0.0827	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1291			0.1100	0.3300	0.1291	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0388			0.0331	0.3300	0.0388	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0471			0.0401	0.3300	0.0471	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0492			0.0419	0.3300	0.0492	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0281			0.0239	0.3300	0.0281	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0615			0.0524	0.3300	0.0615	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1362			0.1160	0.3300	0.1362	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0691			0.0589	0.3300	0.0691	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1631			0.1390	0.3300	0.1631	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1420			0.1210	0.3300	0.1420	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1702			0.1450	0.3300	0.1702	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Aniline	62-53-3	< 0.2864			0.2440	0.6600	0.2864	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1291			0.1100	0.3300	0.1291	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 0.2934			0.2500	0.6600	0.2934	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0256			0.0218	0.3300	0.0256	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0661			0.0563	0.3300	0.0661	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0946			0.0806	0.3300	0.0946	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1291			0.1100	0.3300	0.1291	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0420			0.0358	0.3300	0.0420	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3333			0.2840	0.6600	0.3333	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1866			0.1590	0.6600	0.1866	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.1620			0.1380	0.3300	0.1620	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 14.720			12.800	100.00	14.720	ug/Kg	9/22/2009 10:52:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1725			0.1470	0.3300	0.1725	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1585			0.1350	0.3300	0.1585	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1608			0.1370	0.3300	0.1608	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1408			0.1200	0.3300	0.1408	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1479			0.1260	0.3300	0.1479	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-octyl phthalate	117-84-0	< 0.1960			0.1670	0.3300	0.1960	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1467			0.1250	0.3300	0.1467	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B4 14-14.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-10A **Time Received:** 8:05

Sample Time: 10:46 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Diethyl phthalate	84-66-2	< 0.1455			0.1240	0.3300	0.1455	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1502			0.1280	0.3300	0.1502	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.1018			0.0867	0.3300	0.1018	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1479			0.1260	0.3300	0.1479	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0880			0.0750	0.3300	0.0880	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1303			0.1110	0.3300	0.1303	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1444			0.1230	0.3300	0.1444	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1042			0.0888	0.3300	0.1042	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1130			0.0963	0.3300	0.1130	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1073			0.0914	0.3300	0.1073	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0763			0.0650	0.3300	0.0763	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0877			0.0747	0.3300	0.0877	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0853			0.0727	0.3300	0.0853	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1678			0.1430	0.3300	0.1678	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1702			0.1450	0.3300	0.1702	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.1479			0.1260	0.3300	0.1479	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1124			0.0958	0.3300	0.1124	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenol	108-95-2	< 0.1655			0.1410	0.3300	0.1655	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0939			0.0800	0.3300	0.0939	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1854			0.1580	0.3300	0.1854	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2817			0.2400	0.6600	0.2817	mg/Kg	9/21/2009 3:20:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 0.4343			0.3700	1.0000	0.4343	mg/Kg	9/8/2009	CN_R_TS-9/8/2009	1	SS	9/8/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B4 14.5-15 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-11A **Time Received:** 8:05

Sample Time: 10:47 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		16			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 1.0190			0.8580	5.0000	1.0190	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,1,1-Trichloroethane	71-55-6	< 1.4252			1.2000	5.0000	1.4252	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.6841			0.5760	5.0000	0.6841	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.1188			0.9420	5.0000	1.1188	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,1-Dichloroethane	74-34-3	< 1.0392			0.8750	5.0000	1.0392	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,1-Dichloroethene	75-35-4	< 1.1995			1.0100	5.0000	1.1995	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,1-Dichloropropene	563-58-6	< 0.7827			0.6590	5.0000	0.7827	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 1.0119			0.8520	5.0000	1.0119	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.2827			1.0800	5.0000	1.2827	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 2.9691			2.5000	5.0000	2.9691	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.7542			0.6350	5.0000	0.7542	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.7340			1.4600	5.0000	1.7340	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,2-Dibromoethane	106-93-4	< 0.8812			0.7420	5.0000	0.8812	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7352			0.6190	5.0000	0.7352	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,2-Dichloroethane	107-06-2	< 0.8017			0.6750	5.0000	0.8017	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,2-Dichloropropane	78-87-5	< 1.0261			0.8640	5.0000	1.0261	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 0.8789			0.7400	5.0000	0.8789	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.9299			0.7830	5.0000	0.9299	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,3-Dichloropropane	142-28-9	< 0.6900			0.5810	5.0000	0.6900	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.7530			0.6340	5.0000	0.7530	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
1-Chlorohexane	544-10-5	< 0.5024			0.4230	5.0000	0.5024	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
2,2-Dichloropropane	590-20-7	< 0.9454			0.7960	5.0000	0.9454	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
2-Butanone	78-93-3	< 0.5012			0.4220	10.0000	0.5012	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
2-Chlorotoluene	95-49-8	< 1.2470			1.0500	5.0000	1.2470	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
2-Hexanone	591-78-6	< 0.7791			0.6560	10.0000	0.7791	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
4-Chlorotoluene	106-43-4	< 0.9988			0.8410	5.0000	0.9988	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
4-Isopropyltoluene	99-87-6	< 2.6366			2.2200	5.0000	2.6366	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.6983			1.4300	10.0000	1.6983	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Acetone	67-64-1	< 1.3539			1.1400	10.0000	1.3539	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Allyl chloride	107-05-1	< 2.8622			2.4100	5.0000	2.8622	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Benzene	71-43-2	< 0.6876			0.5790	5.0000	0.6876	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Bromobenzene	108-86-1	< 1.2708			1.0700	5.0000	1.2708	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B4 14.5-15 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-11A **Time Received:** 8:05

Sample Time: 10:47 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Bromochloromethane	74-97-5	< 1.1520			0.9700	5.0000	1.1520	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Bromodichloromethane	75-27-4	< 1.0677			0.8990	5.0000	1.0677	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Bromoform	75-25-2	< 0.7803			0.6570	5.0000	0.7803	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Bromomethane	74-83-9	< 2.0903			1.7600	5.0000	2.0903	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Carbon disulfide	75-15-0	< 1.3658			1.1500	5.0000	1.3658	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Carbon tetrachloride	56-23-5	< 0.8658			0.7290	5.0000	0.8658	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Chlorobenzene	108-90-7	< 1.1496			0.9680	5.0000	1.1496	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Chloroethane	75-00-3	< 2.0428			1.7200	5.0000	2.0428	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Chloroform	67-66-3	< 1.1995			1.0100	5.0000	1.1995	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Chloromethane	74-87-3	< 3.6223			3.0500	5.0000	3.6223	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.0855			0.9140	5.0000	1.0855	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.1995			1.0100	5.0000	1.1995	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Dibromochloromethane	124-48-1	< 0.9371			0.7890	5.0000	0.9371	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Dibromomethane	74-95-3	< 1.5914			1.3400	5.0000	1.5914	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Dichlorodifluoromethane	75-71-8	< 1.9952			1.6800	5.0000	1.9952	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Ethylbenzene	100-41-4	< 0.9489			0.7990	5.0000	0.9489	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Hexachlorobutadiene	87-68-3	< 2.2328			1.8800	5.0000	2.2328	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Iodomethane	74-88-4	< 1.2233			1.0300	5.0000	1.2233	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Isopropylbenzene	98-82-8	< 1.2470			1.0500	5.0000	1.2470	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
m,p-Xylene	179601-23-	< 1.1995			1.0100	10.0000	1.1995	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Methyl tert-butyl ether	1634-04-4	< 0.9584			0.8070	5.0000	0.9584	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Methylene chloride	75-09-2	< 2.3753			2.0000	5.0000	2.3753	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
n-Butylbenzene	104-51-8	< 0.8409			0.7080	5.0000	0.8409	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
n-Propylbenzene	103-65-1	< 1.1449			0.9640	5.0000	1.1449	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Naphthalene	91-20-3	< 1.0083			0.8490	15.0000	1.0083	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
o-Xylene	95-47-6	< 0.9596			0.8080	5.0000	0.9596	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
sec-Butylbenzene	135-98-8	< 1.5796			1.3300	5.0000	1.5796	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Styrene	100-42-5	< 0.9917			0.8350	5.0000	0.9917	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
tert-Butylbenzene	98-06-6	< 1.2470			1.0500	5.0000	1.2470	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Tetrachloroethene	127-18-4	< 0.8777			0.7390	5.0000	0.8777	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Toluene	108-88-3	< 0.7304			0.6150	5.0000	0.7304	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.0606			0.8930	5.0000	1.0606	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.2589			1.0600	10.0000	1.2589	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Trichloroethene	79-01-6	< 0.8682			0.7310	5.0000	0.8682	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B4 14.5-15 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-11A **Time Received:** 8:05

Sample Time: 10:47 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Trichlorofluoromethane	75-69-4	< 2.0071			1.6900	5.0000	2.0071	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM
Vinyl chloride	75-01-4	< 1.0926			0.9200	2.0000	1.0926	ug/Kg	9/9/2009 11:55:00 PM	VOC1_090909A	1	VKG	9/9/2009 11:55:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B2 1-1.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-12A **Time Received:** 8:05

Sample Time: 12:42 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		9			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW6010B													
Aluminum	7429-90-5	33300.0000			0.4630	2.5000	0.5088	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Antimony	7440-36-0	< 0.6264			0.5700	2.5000	0.6264	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Arsenic	7440-38-2	4.4900			0.6890	1.5000	0.7571	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Barium	7440-39-3	95.9000			0.2100	1.0000	0.2308	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Beryllium	7440-41-7	0.5710			0.0440	0.5000	0.0484	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cadmium	7440-43-9	< 0.0769			0.0700	0.5000	0.0769	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Calcium	7440-70-2	725.0000			1.5000	5.0000	1.6484	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Chromium	7440-47-3	21.9000			0.2210	1.0000	0.2429	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cobalt	7440-48-4	4.5400			0.3700	1.0000	0.4066	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Copper	7440-50-8	5.8700			0.4470	1.5000	0.4912	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Iron	7439-89-6	27900.0000			0.9820	5.0000	1.0791	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Lead	7439-92-1	9.8200			0.4500	1.0000	0.4945	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Magnesium	7439-95-4	1950.0000			0.1860	1.0000	0.2044	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Manganese	7439-96-5	24.0000			5.3500	15.0000	5.8791	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Nickel	7440-02-0	13.1000			0.4790	1.0000	0.5264	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Potassium	7440-09-7	1360.0000			4.7100	10.0000	5.1758	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Selenium	7782-49-2	< 1.0879			0.9900	2.0000	1.0879	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Silver	7440-22-4	< 0.5275			0.4800	1.0000	0.5275	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Sodium	7440-23-5	94.5000			0.7500	2.0000	0.8242	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Strontium	7440-24-6	< 0.4725			0.4300	1.0000	0.4725	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Thallium	7440-28-0	< 1.6023			1.4700	5.0000	1.6023	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Vanadium	7440-62-2	31.2000			0.7500	2.0000	0.8242	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Zinc	7440-66-6	39.7000			0.4300	1.0000	0.4725	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2308			0.2100	0.5000	0.2308	mg/kg	9/9/2009	CR6_S-9/9/2009	20	SS	9/9/2009
SW7471A													
Mercury	7439-97-6	< 0.0203			0.0185	0.0400	0.0203	mg/Kg	9/8/2009 7:15:00 PM	HG_R_S-09/09/2009	1	DW	9/8/2009 2:00:00 PM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 0.9429			0.8580	5.0000	0.9429	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,1,1-Trichloroethane	71-55-6	< 1.3187			1.2000	5.0000	1.3187	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.6330			0.5760	5.0000	0.6330	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,1,2-Trichloroethane	79-00-5	< 1.0352			0.9420	5.0000	1.0352	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAp19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B2 1-1.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-12A **Time Received:** 8:05

Sample Time: 12:42 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1-Dichloroethane	74-34-3	< 0.9615			0.8750	5.0000	0.9615	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,1-Dichloroethene	75-35-4	< 1.1099			1.0100	5.0000	1.1099	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,1-Dichloropropene	563-58-6	< 0.7242			0.6590	5.0000	0.7242	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,2,3-Trichlorobenzene	87-61-6	< 0.9363			0.8520	5.0000	0.9363	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,2,3-Trichloropropane	96-18-4	< 1.1868			1.0800	5.0000	1.1868	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,2,4-Trichlorobenzene	120-82-1	< 2.7473			2.5000	5.0000	2.7473	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,2,4-Trimethylbenzene	95-63-6	< 0.6978			0.6350	5.0000	0.6978	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.6044			1.4600	5.0000	1.6044	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,2-Dibromoethane	106-93-4	< 0.8154			0.7420	5.0000	0.8154	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.6802			0.6190	5.0000	0.6802	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,2-Dichloroethane	107-06-2	< 0.7418			0.6750	5.0000	0.7418	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,2-Dichloropropane	78-87-5	< 0.9495			0.8640	5.0000	0.9495	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,3,5-Trimethylbenzene	108-67-8	< 0.8132			0.7400	5.0000	0.8132	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.8604			0.7830	5.0000	0.8604	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,3-Dichloropropane	142-28-9	< 0.6385			0.5810	5.0000	0.6385	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.6967			0.6340	5.0000	0.6967	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
1-Chlorohexane	544-10-5	< 0.4648			0.4230	5.0000	0.4648	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
2,2-Dichloropropane	590-20-7	< 0.8747			0.7960	5.0000	0.8747	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
2-Butanone	78-93-3	< 0.4637			0.4220	10.0000	0.4637	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
2-Chlorotoluene	95-49-8	< 1.1538			1.0500	5.0000	1.1538	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
2-Hexanone	591-78-6	< 0.7209			0.6560	10.0000	0.7209	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
4-Chlorotoluene	106-43-4	< 0.9242			0.8410	5.0000	0.9242	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
4-Isopropyltoluene	99-87-6	< 2.4396			2.2200	5.0000	2.4396	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
4-Methyl-2-pentanone	108-10-1	< 1.5714			1.4300	10.0000	1.5714	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Acetone	67-64-1	< 1.2527			1.1400	10.0000	1.2527	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Allyl chloride	107-05-1	< 2.6484			2.4100	5.0000	2.6484	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Benzene	71-43-2	< 0.6363			0.5790	5.0000	0.6363	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Bromobenzene	108-86-1	< 1.1758			1.0700	5.0000	1.1758	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Bromochloromethane	74-97-5	< 1.0659			0.9700	5.0000	1.0659	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Bromodichloromethane	75-27-4	< 0.9879			0.8990	5.0000	0.9879	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Bromoform	75-25-2	< 0.7220			0.6570	5.0000	0.7220	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Bromomethane	74-83-9	< 1.9341			1.7600	5.0000	1.9341	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Carbon disulfide	75-15-0	< 1.2637			1.1500	5.0000	1.2637	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Carbon tetrachloride	56-23-5	< 0.8011			0.7290	5.0000	0.8011	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B2 1-1.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-12A **Time Received:** 8:05

Sample Time: 12:42 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Chlorobenzene	108-90-7	< 1.0637			0.9680	5.0000	1.0637	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Chloroethane	75-00-3	< 1.8901			1.7200	5.0000	1.8901	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Chloroform	67-66-3	< 1.1099			1.0100	5.0000	1.1099	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Chloromethane	74-87-3	< 3.3516			3.0500	5.0000	3.3516	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
cis-1,2-Dichloroethene	156-59-2	< 1.0044			0.9140	5.0000	1.0044	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
cis-1,3-Dichloropropene	10061-01-5	< 1.1099			1.0100	5.0000	1.1099	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Dibromochloromethane	124-48-1	< 0.8670			0.7890	5.0000	0.8670	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Dibromomethane	74-95-3	< 1.4725			1.3400	5.0000	1.4725	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Dichlorodifluoromethane	75-71-8	< 1.8462			1.6800	5.0000	1.8462	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Ethylbenzene	100-41-4	< 0.8780			0.7990	5.0000	0.8780	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Hexachlorobutadiene	87-68-3	< 2.0659			1.8800	5.0000	2.0659	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Iodomethane	74-88-4	< 1.1319			1.0300	5.0000	1.1319	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Isopropylbenzene	98-82-8	< 1.1538			1.0500	5.0000	1.1538	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
m,p-Xylene	179601-23-	< 1.1099			1.0100	10.0000	1.1099	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Methyl tert-butyl ether	1634-04-4	< 0.8868			0.8070	5.0000	0.8868	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Methylene chloride	75-09-2	< 2.1978			2.0000	5.0000	2.1978	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
n-Butylbenzene	104-51-8	< 0.7780			0.7080	5.0000	0.7780	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
n-Propylbenzene	103-65-1	< 1.0593			0.9640	5.0000	1.0593	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Naphthalene	91-20-3	< 0.9330			0.8490	15.0000	0.9330	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
o-Xylene	95-47-6	< 0.8879			0.8080	5.0000	0.8879	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
sec-Butylbenzene	135-98-8	< 1.4615			1.3300	5.0000	1.4615	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Styrene	100-42-5	< 0.9176			0.8350	5.0000	0.9176	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
tert-Butylbenzene	98-06-6	< 1.1538			1.0500	5.0000	1.1538	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Tetrachloroethene	127-18-4	< 0.8121			0.7390	5.0000	0.8121	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Toluene	108-88-3	< 0.6758			0.6150	5.0000	0.6758	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
trans-1,2-Dichloroethene	156-60-5	< 0.9813			0.8930	5.0000	0.9813	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
trans-1,3-Dichloropropene	10061-02-9	< 1.1648			1.0600	10.0000	1.1648	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Trichloroethene	79-01-6	< 0.8033			0.7310	5.0000	0.8033	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Trichlorofluoromethane	75-69-4	< 1.8571			1.6900	5.0000	1.8571	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
Vinyl chloride	75-01-4	< 1.0110			0.9200	2.0000	1.0110	ug/Kg	9/10/2009 12:39:00 A	VOC1_090909A	1	VKG	9/10/2009 12:39:00 AM
SW8270C													
1,2-Diphenylhydrazine	122-66-7	< 10.1429			9.2300	33.3000	10.1429	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1462			0.1330	0.3300	0.1462	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 13.8462			12.6000	33.3000	13.8462	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B2 1-1.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-12A **Time Received:** 8:05

Sample Time: 12:42 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
1,2,4-Trichlorobenzene	120-82-1	< 0.0478			0.0435	0.3300	0.0478	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0689			0.0627	0.3300	0.0689	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 12.3077			11.2000	33.3000	12.3077	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0219			0.0199	0.3300	0.0219	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 22.9670			20.9000	66.7000	22.9670	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 20.0000			18.2000	66.7000	20.0000	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0767			0.0698	0.3300	0.0767	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0703			0.0640	0.3300	0.0703	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenylphenylether	101-55-3	< 9.8462			8.9600	33.3000	9.8462	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenylphenylether	7005-72-3	< 5.5495			5.0500	33.3000	5.5495	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.1868			0.1700	0.3300	0.1868	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 42.8571			39.0000	100.000	42.8571	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0212			0.0193	0.3300	0.0212	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 19.3407			17.6000	33.3000	19.3407	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0286			0.0260	0.3300	0.0286	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0457			0.0416	0.3300	0.0457	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 10.1758			9.2600	33.3000	10.1758	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0296			0.0269	0.3300	0.0296	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 13.2967			12.1000	33.3000	13.2967	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 14.5055			13.2000	33.3000	14.5055	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1209			0.1100	0.3300	0.1209	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 9.9780			9.0800	33.3000	9.9780	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0222			0.0202	0.3300	0.0222	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0457			0.0416	0.3300	0.0457	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 8.6703			7.8900	33.3000	8.6703	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 14.2857			13.0000	33.3000	14.2857	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0303			0.0276	0.3300	0.0303	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0367			0.0334	0.3300	0.0367	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 17.3626			15.8000	33.3000	17.3626	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0431			0.0392	0.3300	0.0431	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 11.0989			10.1000	33.3000	11.0989	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1538			0.1400	0.3300	0.1538	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 10.5385			9.5900	33.3000	10.5385	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0481			0.0438	0.3300	0.0481	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B2 1-1.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-12A **Time Received:** 8:05

Sample Time: 12:42 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Pentachlorophenol	87-86-5	< 46.1538			42.0000	100.000	46.1538	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0313			0.0285	0.3300	0.0313	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0318			0.0289	0.3300	0.0318	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0440			0.0400	0.3300	0.0440	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 0.1758			0.1600	0.3300	0.1758	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0775			0.0705	0.3300	0.0775	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1209			0.1100	0.3300	0.1209	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0364			0.0331	0.3300	0.0364	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0441			0.0401	0.3300	0.0441	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0460			0.0419	0.3300	0.0460	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0263			0.0239	0.3300	0.0263	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0576			0.0524	0.3300	0.0576	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1275			0.1160	0.3300	0.1275	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0647			0.0589	0.3300	0.0647	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1527			0.1390	0.3300	0.1527	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1330			0.1210	0.3300	0.1330	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1593			0.1450	0.3300	0.1593	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Aniline	62-53-3	< 0.2681			0.2440	0.6600	0.2681	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1209			0.1100	0.3300	0.1209	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 0.2747			0.2500	0.6600	0.2747	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0240			0.0218	0.3300	0.0240	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0619			0.0563	0.3300	0.0619	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0886			0.0806	0.3300	0.0886	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1209			0.1100	0.3300	0.1209	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0393			0.0358	0.3300	0.0393	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3121			0.2840	0.6600	0.3121	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1747			0.1590	0.6600	0.1747	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.1516			0.1380	0.3300	0.1516	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 13.952			12.800	100.00	13.952	ug/Kg	9/22/2009 11:29:00 P	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1615			0.1470	0.3300	0.1615	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1484			0.1350	0.3300	0.1484	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1505			0.1370	0.3300	0.1505	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1319			0.1200	0.3300	0.1319	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1385			0.1260	0.3300	0.1385	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B2 1-1.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-12A **Time Received:** 8:05

Sample Time: 12:42 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Di-n-octyl phthalate	117-84-0	< 0.1835			0.1670	0.3300	0.1835	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1374			0.1250	0.3300	0.1374	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Diethyl phthalate	84-66-2	< 0.1363			0.1240	0.3300	0.1363	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1407			0.1280	0.3300	0.1407	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.0953			0.0867	0.3300	0.0953	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1385			0.1260	0.3300	0.1385	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0824			0.0750	0.3300	0.0824	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1220			0.1110	0.3300	0.1220	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1352			0.1230	0.3300	0.1352	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.0976			0.0888	0.3300	0.0976	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1058			0.0963	0.3300	0.1058	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1004			0.0914	0.3300	0.1004	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	0.4900			0.0650	0.3300	0.0714	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0821			0.0747	0.3300	0.0821	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0799			0.0727	0.3300	0.0799	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1571			0.1430	0.3300	0.1571	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1593			0.1450	0.3300	0.1593	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.1385			0.1260	0.3300	0.1385	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1053			0.0958	0.3300	0.1053	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenol	108-95-2	< 0.1549			0.1410	0.3300	0.1549	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0879			0.0800	0.3300	0.0879	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1736			0.1580	0.3300	0.1736	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2637			0.2400	0.6600	0.2637	mg/Kg	9/21/2009 5:18:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 0.4066			0.3700	1.0000	0.4066	mg/Kg	9/8/2009	CN_R_TS-9/8/2009	1	SS	9/8/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B2 21-22.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-13A **Time Received:** 8:05

Sample Time: 12:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		23			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW6010B													
Aluminum	7429-90-5	16600.0000			0.4630	2.5000	0.6021	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Antimony	7440-36-0	< 0.7412			0.5700	2.5000	0.7412	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Arsenic	7440-38-2	< 0.8960			0.6890	1.5000	0.8960	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Barium	7440-39-3	125.0000			0.2100	1.0000	0.2731	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Beryllium	7440-41-7	0.7670			0.0440	0.5000	0.0572	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cadmium	7440-43-9	< 0.0910			0.0700	0.5000	0.0910	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Calcium	7440-70-2	2180.0000			1.5000	5.0000	1.9506	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Chromium	7440-47-3	16.4000			0.2210	1.0000	0.2874	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cobalt	7440-48-4	23.0000			0.3700	1.0000	0.4811	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Copper	7440-50-8	13.3000			0.4470	1.5000	0.5813	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Iron	7439-89-6	19100.0000			0.9820	5.0000	1.2770	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Lead	7439-92-1	31.7000			0.4500	1.0000	0.5852	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Magnesium	7439-95-4	3420.0000			0.1860	1.0000	0.2419	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Manganese	7439-96-5	534.0000			5.3500	15.0000	6.9571	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Nickel	7440-02-0	20.9000			0.4790	1.0000	0.6229	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Potassium	7440-09-7	1570.0000			4.7100	10.0000	6.1248	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Selenium	7782-49-2	< 1.2874			0.9900	2.0000	1.2874	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Silver	7440-22-4	< 0.6242			0.4800	1.0000	0.6242	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Sodium	7440-23-5	917.0000			0.7500	2.0000	0.9753	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Strontium	7440-24-6	< 0.5592			0.4300	1.0000	0.5592	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Thallium	7440-28-0	< 1.8081			1.4700	5.0000	1.8081	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Vanadium	7440-62-2	28.7000			0.7500	2.0000	0.9753	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Zinc	7440-66-6	64.4000			0.4300	1.0000	0.5592	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2731			0.2100	0.5000	0.2731	mg/kg	9/9/2009	CR6_S-9/9/2009	20	SS	9/9/2009
SW7471A													
Mercury	7439-97-6	< 0.0241			0.0185	0.0400	0.0241	mg/Kg	9/8/2009 7:15:00 PM	HG_R_S-09/09/2009	1	DW	9/8/2009 2:00:00 PM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 1.1157			0.8580	5.0000	1.1157	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,1,1-Trichloroethane	71-55-6	< 1.5605			1.2000	5.0000	1.5605	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.7490			0.5760	5.0000	0.7490	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,1,2-Trichloroethane	79-00-5	< 1.2250			0.9420	5.0000	1.2250	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B2 21-22.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-13A **Time Received:** 8:05

Sample Time: 12:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1-Dichloroethane	74-34-3	< 1.1378			0.8750	5.0000	1.1378	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,1-Dichloroethene	75-35-4	< 1.3134			1.0100	5.0000	1.3134	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,1-Dichloropropene	563-58-6	< 0.8570			0.6590	5.0000	0.8570	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,2,3-Trichlorobenzene	87-61-6	< 1.1079			0.8520	5.0000	1.1079	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,2,3-Trichloropropane	96-18-4	< 1.4044			1.0800	5.0000	1.4044	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,2,4-Trichlorobenzene	120-82-1	< 3.2510			2.5000	5.0000	3.2510	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,2,4-Trimethylbenzene	95-63-6	< 0.8257			0.6350	5.0000	0.8257	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.8986			1.4600	5.0000	1.8986	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,2-Dibromoethane	106-93-4	< 0.9649			0.7420	5.0000	0.9649	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.8049			0.6190	5.0000	0.8049	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,2-Dichloroethane	107-06-2	< 0.8778			0.6750	5.0000	0.8778	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,2-Dichloropropane	78-87-5	< 1.1235			0.8640	5.0000	1.1235	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,3,5-Trimethylbenzene	108-67-8	< 0.9623			0.7400	5.0000	0.9623	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,3-Dichlorobenzene	541-73-1	< 1.0182			0.7830	5.0000	1.0182	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,3-Dichloropropane	142-28-9	< 0.7555			0.5810	5.0000	0.7555	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.8244			0.6340	5.0000	0.8244	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
1-Chlorohexane	544-10-5	< 0.5501			0.4230	5.0000	0.5501	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
2,2-Dichloropropane	590-20-7	< 1.0351			0.7960	5.0000	1.0351	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
2-Butanone	78-93-3	< 0.5488			0.4220	10.0000	0.5488	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
2-Chlorotoluene	95-49-8	< 1.3654			1.0500	5.0000	1.3654	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
2-Hexanone	591-78-6	< 0.8531			0.6560	10.0000	0.8531	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
4-Chlorotoluene	106-43-4	< 1.0936			0.8410	5.0000	1.0936	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
4-Isopropyltoluene	99-87-6	< 2.8869			2.2200	5.0000	2.8869	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
4-Methyl-2-pentanone	108-10-1	< 1.8596			1.4300	10.0000	1.8596	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Acetone	67-64-1	< 1.4824			1.1400	10.0000	1.4824	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Allyl chloride	107-05-1	< 3.1339			2.4100	5.0000	3.1339	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Benzene	71-43-2	< 0.7529			0.5790	5.0000	0.7529	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Bromobenzene	108-86-1	< 1.3914			1.0700	5.0000	1.3914	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Bromochloromethane	74-97-5	< 1.2614			0.9700	5.0000	1.2614	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Bromodichloromethane	75-27-4	< 1.1691			0.8990	5.0000	1.1691	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Bromoform	75-25-2	< 0.8544			0.6570	5.0000	0.8544	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Bromomethane	74-83-9	< 2.2887			1.7600	5.0000	2.2887	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Carbon disulfide	75-15-0	< 1.4954			1.1500	5.0000	1.4954	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Carbon tetrachloride	56-23-5	< 0.9480			0.7290	5.0000	0.9480	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B2 21-22.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-13A **Time Received:** 8:05

Sample Time: 12:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Chlorobenzene	108-90-7	< 1.2588			0.9680	5.0000	1.2588	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Chloroethane	75-00-3	< 2.2367			1.7200	5.0000	2.2367	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Chloroform	67-66-3	< 1.3134			1.0100	5.0000	1.3134	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Chloromethane	74-87-3	< 3.9662			3.0500	5.0000	3.9662	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
cis-1,2-Dichloroethene	156-59-2	< 1.1886			0.9140	5.0000	1.1886	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
cis-1,3-Dichloropropene	10061-01-5	< 1.3134			1.0100	5.0000	1.3134	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Dibromochloromethane	124-48-1	< 1.0260			0.7890	5.0000	1.0260	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Dibromomethane	74-95-3	< 1.7425			1.3400	5.0000	1.7425	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Dichlorodifluoromethane	75-71-8	< 2.1847			1.6800	5.0000	2.1847	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Ethylbenzene	100-41-4	< 1.0390			0.7990	5.0000	1.0390	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Hexachlorobutadiene	87-68-3	< 2.4447			1.8800	5.0000	2.4447	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Iodomethane	74-88-4	< 1.3394			1.0300	5.0000	1.3394	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Isopropylbenzene	98-82-8	< 1.3654			1.0500	5.0000	1.3654	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
m,p-Xylene	179601-23-	< 1.3134			1.0100	10.0000	1.3134	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Methyl tert-butyl ether	1634-04-4	< 1.0494			0.8070	5.0000	1.0494	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Methylene chloride	75-09-2	< 2.6008			2.0000	5.0000	2.6008	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
n-Butylbenzene	104-51-8	< 0.9207			0.7080	5.0000	0.9207	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
n-Propylbenzene	103-65-1	< 1.2536			0.9640	5.0000	1.2536	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Naphthalene	91-20-3	< 1.1040			0.8490	15.0000	1.1040	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
o-Xylene	95-47-6	< 1.0507			0.8080	5.0000	1.0507	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
sec-Butylbenzene	135-98-8	< 1.7295			1.3300	5.0000	1.7295	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Styrene	100-42-5	< 1.0858			0.8350	5.0000	1.0858	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
tert-Butylbenzene	98-06-6	< 1.3654			1.0500	5.0000	1.3654	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Tetrachloroethene	127-18-4	< 0.9610			0.7390	5.0000	0.9610	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Toluene	108-88-3	< 0.7997			0.6150	5.0000	0.7997	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
trans-1,2-Dichloroethene	156-60-5	< 1.1612			0.8930	5.0000	1.1612	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
trans-1,3-Dichloropropene	10061-02-9	< 1.3784			1.0600	10.0000	1.3784	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Trichloroethene	79-01-6	< 0.9506			0.7310	5.0000	0.9506	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Trichlorofluoromethane	75-69-4	< 2.1977			1.6900	5.0000	2.1977	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
Vinyl chloride	75-01-4	< 1.1964			0.9200	2.0000	1.1964	ug/Kg	9/10/2009 1:22:00 AM	VOC1_090909A	1	VKG	9/10/2009 1:22:00 AM
SW8270C													
1,2-Diphenylhydrazine	122-66-7	< 12.0026			9.2300	33.3000	12.0026	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1730			0.1330	0.3300	0.1730	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 16.3849			12.6000	33.3000	16.3849	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAp19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B2 21-22.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-13A **Time Received:** 8:05

Sample Time: 12:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
1,2,4-Trichlorobenzene	120-82-1	< 0.0566			0.0435	0.3300	0.0566	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0815			0.0627	0.3300	0.0815	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 14.5644			11.2000	33.3000	14.5644	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0259			0.0199	0.3300	0.0259	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 27.1782			20.9000	66.7000	27.1782	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 23.6671			18.2000	66.7000	23.6671	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0908			0.0698	0.3300	0.0908	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0832			0.0640	0.3300	0.0832	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenylphenylether	101-55-3	< 11.6515			8.9600	33.3000	11.6515	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenylphenylether	7005-72-3	< 6.5670			5.0500	33.3000	6.5670	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.2211			0.1700	0.3300	0.2211	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 50.7152			39.0000	100.000	50.7152	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0251			0.0193	0.3300	0.0251	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 22.8869			17.6000	33.3000	22.8869	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0338			0.0260	0.3300	0.0338	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0541			0.0416	0.3300	0.0541	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 12.0416			9.2600	33.3000	12.0416	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0350			0.0269	0.3300	0.0350	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 15.7347			12.1000	33.3000	15.7347	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 17.1651			13.2000	33.3000	17.1651	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1430			0.1100	0.3300	0.1430	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 11.8075			9.0800	33.3000	11.8075	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0263			0.0202	0.3300	0.0263	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0541			0.0416	0.3300	0.0541	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 10.2601			7.8900	33.3000	10.2601	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 16.9051			13.0000	33.3000	16.9051	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0359			0.0276	0.3300	0.0359	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0434			0.0334	0.3300	0.0434	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 20.5462			15.8000	33.3000	20.5462	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0510			0.0392	0.3300	0.0510	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 13.1339			10.1000	33.3000	13.1339	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1821			0.1400	0.3300	0.1821	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 12.4707			9.5900	33.3000	12.4707	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0570			0.0438	0.3300	0.0570	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B2 21-22.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-13A **Time Received:** 8:05

Sample Time: 12:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Pentachlorophenol	87-86-5	< 54.6164			42.0000	100.000	54.6164	ug/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0371			0.0285	0.3300	0.0371	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0376			0.0289	0.3300	0.0376	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0520			0.0400	0.3300	0.0520	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 0.2081			0.1600	0.3300	0.2081	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0917			0.0705	0.3300	0.0917	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1430			0.1100	0.3300	0.1430	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0430			0.0331	0.3300	0.0430	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0521			0.0401	0.3300	0.0521	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0545			0.0419	0.3300	0.0545	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0311			0.0239	0.3300	0.0311	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0681			0.0524	0.3300	0.0681	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1508			0.1160	0.3300	0.1508	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0766			0.0589	0.3300	0.0766	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1808			0.1390	0.3300	0.1808	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1573			0.1210	0.3300	0.1573	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1886			0.1450	0.3300	0.1886	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Aniline	62-53-3	< 0.3173			0.2440	0.6600	0.3173	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1430			0.1100	0.3300	0.1430	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 0.3251			0.2500	0.6600	0.3251	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0283			0.0218	0.3300	0.0283	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0732			0.0563	0.3300	0.0732	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.1048			0.0806	0.3300	0.1048	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1430			0.1100	0.3300	0.1430	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0466			0.0358	0.3300	0.0466	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3693			0.2840	0.6600	0.3693	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.2068			0.1590	0.6600	0.2068	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.1795			0.1380	0.3300	0.1795	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 15.744			12.800	100.00	15.744	mg/Kg	9/23/2009 12:06:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1912			0.1470	0.3300	0.1912	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1756			0.1350	0.3300	0.1756	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1782			0.1370	0.3300	0.1782	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1560			0.1200	0.3300	0.1560	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1638			0.1260	0.3300	0.1638	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAp19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0909007 **Report Date:** Date: 9/30/2009

ClientSampID: B2 21-22.5 **Sample Matrix:** Soil **Date Received:** 9/2/2009

Sample Date: 9/1/2009 **Alamo Lab ID:** 0909007-13A **Time Received:** 8:05

Sample Time: 12:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Di-n-octyl phthalate	117-84-0	< 0.2172			0.1670	0.3300	0.2172	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1625			0.1250	0.3300	0.1625	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Diethyl phthalate	84-66-2	< 0.1612			0.1240	0.3300	0.1612	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1664			0.1280	0.3300	0.1664	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.1127			0.0867	0.3300	0.1127	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1638			0.1260	0.3300	0.1638	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0975			0.0750	0.3300	0.0975	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1443			0.1110	0.3300	0.1443	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1599			0.1230	0.3300	0.1599	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1155			0.0888	0.3300	0.1155	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1252			0.0963	0.3300	0.1252	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1189			0.0914	0.3300	0.1189	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	0.4510			0.0650	0.3300	0.0845	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0971			0.0747	0.3300	0.0971	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0945			0.0727	0.3300	0.0945	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1860			0.1430	0.3300	0.1860	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1886			0.1450	0.3300	0.1886	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.1638			0.1260	0.3300	0.1638	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1246			0.0958	0.3300	0.1246	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenol	108-95-2	< 0.1834			0.1410	0.3300	0.1834	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyrene	129-00-0	< 0.1040			0.0800	0.3300	0.1040	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyridine	110-86-1	< 0.2055			0.1580	0.3300	0.2055	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.3121			0.2400	0.6600	0.3121	mg/Kg	9/21/2009 5:56:00 PM	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 0.4811			0.3700	1.0000	0.4811	mg/Kg	9/8/2009	CN_R_TS-9/8/2009	1	SS	9/8/2009

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: D2216 **Units.....:** wt% **Analyst...:** SS

Method Description..: PERCENT MOISTURE **Batch.....:** PMOIST-9/10/2009 **RunID:** BAL1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
DUP		0909007-13ADUP	1	9/10/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Percent Moisture	22.1000	23.1000				%	0 - 0	
					RPD = 4.4		RPDLimit = 15	

Test Method.....: D2216 **Units.....:** wt% **Analyst...:** SS

Method Description..: PERCENT MOISTURE **Batch.....:** PMOIST-9/10/2009 **RunID:** BAL1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
DUP		0909018-05ADUP	1	9/10/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Percent Moisture	14.8000	14.9000				%	0 - 0	
					RPD = 0.7		RPDLimit = 15	

Test Method.....: SW9010A **Units.....:** mg/Kg **Analyst...:** SS

Method Description..: CYANIDE, TOTAL **Batch.....:** CN_R_TS-9/8/2009 **RunID:** CN_090908A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	BLK	1	9/8/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Cyanide	< .3700						-	

Test Method.....: SW9010A **Units.....:** mg/Kg **Analyst...:** SS

Method Description..: CYANIDE, TOTAL **Batch.....:** CN_R_TS-9/8/2009 **RunID:** CN_090908A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	LCS	1	9/8/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Cyanide	0.0520		0.0500		104	%	80 - 120	

Test Method.....: SW9010A **Units.....:** mg/Kg **Analyst...:** SS

Method Description..: CYANIDE, TOTAL **Batch.....:** CN_R_TS-9/8/2009 **RunID:** CN_090908A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0909007-12AMS	1	9/8/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Cyanide	0.0460		0.0500		92	%	80 - 120	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW9010A **Units.....:** mg/Kg **Analyst...:** SS

Method Description..: CYANIDE, TOTAL **Batch.....:** CN_R_TS-9/8/2009 **RunID:** CN_090908A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSD	Matrix Spike Duplicate	0909007-12AMSD	1	9/8/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Cyanide	0.0470	0.0460	0.0500		94	%	80 - 120	
					RPD = 2.2		RPDLimit = 30	

Test Method.....: SW7471A **Units.....:** mg/Kg **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_S-09/09/2009 **RunID:** HG_090908E

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK08A	1	9/8/2009 7:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	< .0185						-	

Test Method.....: SW7471A **Units.....:** mg/Kg **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_S-09/09/2009 **RunID:** HG_090908E

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	09LCS08A	1	9/8/2009 7:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	0.4820		0.5000		96	%	77 - 120	

Test Method.....: SW7471A **Units.....:** mg/Kg **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_S-09/09/2009 **RunID:** HG_090908E

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0909007-10AMS	1	9/8/2009 7:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	0.4420		0.5000		88	%	77 - 120	

Test Method.....: SW7471A **Units.....:** mg/Kg **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_S-09/09/2009 **RunID:** HG_090908E

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSD	Matrix Spike Duplicate	0909007-10AMSD	1	9/8/2009 7:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	0.4480	0.4420	0.5000		90	%	77 - 120	
					RPD = 1.3		RPDLimit = 25	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW6010B **Units.....:** mg/Kg **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_S-9/4/2009 **RunID:** ICP_090908B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	BLK	1	9/8/2009 5:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	< .4630						-	
Antimony	< .5700						-	
Arsenic	< .6890						-	
Barium	< .2100						-	
Beryllium	< .0440						-	
Cadmium	< .0700						-	
Calcium	< 1.5000						-	
Chromium	< .2210						-	
Cobalt	< .3700						-	
Copper	< .4470						-	
Iron	< .9820						-	
Lead	< .4500						-	
Magnesium	< .1860						-	
Manganese	< 5.3500						-	
Nickel	< .4790						-	
Potassium	< 4.7100						-	
Selenium	< .9900						-	
Silver	< .4800						-	
Sodium	< .7500						-	
Thallium	< 1.4700						-	
Vanadium	< .7500						-	
Zinc	< .4300						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW6010B **Units.....:** mg/Kg **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_S-9/4/2009 **RunID:** ICP_090908B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	LCS	1	9/8/2009 5:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	51.0000		50.0000		102	%	80 - 120	
Antimony	45.2000		50.0000		90	%	80 - 120	
Arsenic	51.5000		50.0000		103	%	80 - 120	
Barium	51.3000		50.0000		103	%	80 - 120	
Beryllium	50.2000		50.0000		100	%	80 - 120	
Cadmium	52.0000		50.0000		104	%	80 - 120	
Calcium	523.0000		500.0000		105	%	80 - 120	
Chromium	52.9000		50.0000		106	%	80 - 120	
Cobalt	52.1000		50.0000		104	%	80 - 120	
Copper	53.5000		50.0000		107	%	80 - 120	
Iron	44.8000		50.0000		90	%	80 - 120	
Lead	49.0000		50.0000		98	%	80 - 120	
Magnesium	505.0000		500.0000		101	%	80 - 120	
Manganese	53.1000		50.0000		106	%	80 - 120	
Nickel	49.3000		50.0000		99	%	80 - 120	
Potassium	554.0000		500.0000		111	%	80 - 120	
Selenium	52.8000		50.0000		106	%	80 - 120	
Silver	47.4000		50.0000		95	%	80 - 120	
Sodium	546.0000		500.0000		109	%	80 - 120	
Thallium	46.9000		50.0000		94	%	80 - 120	
Vanadium	45.7000		50.0000		91	%	80 - 120	
Zinc	46.9000		50.0000		94	%	80 - 120	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW6010B **Units.....:** mg/Kg **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_S-9/4/2009 **RunID:** ICP_090908B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCSD	Laboratory Control Sample Duplicate	LCSD	1	9/8/2009 5:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	51.2000	51.0000	50.0000		102	%	80 - 120	
					RPD = 0.4		RPDLimit = 25	
Antimony	47.1000	45.2000	50.0000		94	%	80 - 120	
					RPD = 4.1		RPDLimit = 25	
Arsenic	50.5000	51.5000	50.0000		101	%	80 - 120	
					RPD = 2.0		RPDLimit = 25	
Barium	51.4000	51.3000	50.0000		103	%	80 - 120	
					RPD = 0.2		RPDLimit = 25	
Beryllium	50.2000	50.2000	50.0000		100	%	80 - 120	
					RPD = 0.0		RPDLimit = 25	
Cadmium	51.9000	52.0000	50.0000		104	%	80 - 120	
					RPD = 0.2		RPDLimit = 25	
Calcium	506.0000	523.0000	500.0000		101	%	80 - 120	
					RPD = 3.3		RPDLimit = 25	
Chromium	52.4000	52.9000	50.0000		105	%	80 - 120	
					RPD = 0.9		RPDLimit = 25	
Cobalt	52.8000	52.1000	50.0000		106	%	80 - 120	
					RPD = 1.3		RPDLimit = 25	
Copper	52.0000	53.5000	50.0000		104	%	80 - 120	
					RPD = 2.8		RPDLimit = 25	
Iron	48.3000	44.8000	50.0000		97	%	80 - 120	
					RPD = 7.5		RPDLimit = 25	
Lead	50.0000	49.0000	50.0000		100	%	80 - 120	
					RPD = 2.0		RPDLimit = 25	
Magnesium	507.0000	505.0000	500.0000		101	%	80 - 120	
					RPD = 0.4		RPDLimit = 25	
Manganese	53.4000	53.1000	50.0000		107	%	80 - 120	
					RPD = 0.6		RPDLimit = 25	
Nickel	49.1000	49.3000	50.0000		98	%	80 - 120	
					RPD = 0.4		RPDLimit = 25	
Potassium	435.0000	554.0000	500.0000		87	%	80 - 120	
					RPD = 24.1		RPDLimit = 25	
Selenium	54.4000	52.8000	50.0000		109	%	80 - 120	
					RPD = 3.0		RPDLimit = 25	
Silver	47.0000	47.4000	50.0000		94	%	80 - 120	
					RPD = 0.8		RPDLimit = 25	
Sodium	538.0000	546.0000	500.0000		108	%	80 - 120	
					RPD = 1.5		RPDLimit = 25	
Thallium	47.1000	46.9000	50.0000		94	%	80 - 120	
					RPD = 0.4		RPDLimit = 25	
Vanadium	44.9000	45.7000	50.0000		90	%	80 - 120	
					RPD = 1.8		RPDLimit = 25	
Zinc	49.0000	46.9000	50.0000		98	%	80 - 120	
					RPD = 4.4		RPDLimit = 25	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW6010B **Units.....:** mg/Kg **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_S-9/4/2009 **RunID:** ICP_090908B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0909007-10AMS	1	9/8/2009 5:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	28400.0000		50.0000	19000.0000	18800	%	75 - 125	ES
Antimony	49.4000		50.0000		99	%	75 - 125	
Arsenic	53.2000		50.0000	4.3900	98	%	75 - 125	
Barium	235.0000		50.0000	181.0000	108	%	75 - 125	
Beryllium	52.1000		50.0000	0.9270	102	%	75 - 125	
Cadmium	54.3000		50.0000		109	%	75 - 125	
Calcium	1630.0000		500.0000	1790.0000	-32	%	75 - 125	S
Chromium	77.8000		50.0000	21.0000	114	%	75 - 125	
Cobalt	64.7000		50.0000	14.7000	100	%	75 - 125	
Copper	59.3000		50.0000	10.1000	98	%	75 - 125	
Iron	23500.0000		50.0000	29900.0000	-12800	%	75 - 125	ES
Lead	60.0000		50.0000	8.7200	103	%	75 - 125	
Magnesium	2040.0000		500.0000	3190.0000	-230	%	75 - 125	S
Manganese	312.0000		50.0000	257.0000	110	%	75 - 125	E
Nickel	82.4000		50.0000	37.4000	90	%	75 - 125	
Potassium	1270.0000		500.0000	696.0000	115	%	75 - 125	
Selenium	53.8000		50.0000		108	%	75 - 125	
Silver	56.2000		50.0000		112	%	75 - 125	
Sodium	1270.0000		500.0000	724.0000	109	%	75 - 125	
Thallium	147.0000		50.0000		294	%	75 - 125	S
Vanadium	75.2000		50.0000	18.3000	114	%	75 - 125	
Zinc	101.0000		50.0000	50.4000	101	%	75 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW6010B **Units.....:** mg/Kg **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_S-9/4/2009 **RunID:** ICP_090908B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSD	Matrix Spike Duplicate	0909007-10AMSD	1	9/8/2009 5:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	26300.0000	28400.0000	50.0000	19000.0000	14600	%	75 - 125	ES
					RPD = 7.7		RPDLimit = 25	
Antimony	52.6000	49.4000	50.0000		105	%	75 - 125	
					RPD = 6.3		RPDLimit = 25	
Arsenic	53.4000	53.2000	50.0000	4.3900	98	%	75 - 125	
					RPD = 0.4		RPDLimit = 25	
Barium	236.0000	235.0000	200.0000	181.0000	28	%	75 - 125	S
					RPD = 0.4		RPDLimit = 25	
Beryllium	51.6000	52.1000	50.0000	0.9270	101	%	75 - 125	
					RPD = 1.0		RPDLimit = 25	
Cadmium	54.1000	54.3000	50.0000		108	%	75 - 125	
					RPD = 0.4		RPDLimit = 25	
Calcium	1630.0000	1630.0000	500.0000	1790.0000	-32	%	75 - 125	S
					RPD = 0.0		RPDLimit = 25	
Chromium	78.6000	77.8000	50.0000	21.0000	115	%	75 - 125	
					RPD = 1.0		RPDLimit = 25	
Cobalt	64.2000	64.7000	50.0000	14.7000	99	%	75 - 125	
					RPD = 0.8		RPDLimit = 25	
Copper	58.7000	59.3000	50.0000	10.1000	97	%	75 - 125	
					RPD = 1.0		RPDLimit = 25	
Iron	21400.0000	23500.0000	50.0000	29900.0000	-17000	%	75 - 125	ES
					RPD = 9.4		RPDLimit = 25	
Lead	60.2000	60.0000	50.0000	8.7200	103	%	75 - 125	
					RPD = 0.3		RPDLimit = 25	
Magnesium	2050.0000	2040.0000	500.0000	3190.0000	-228	%	75 - 125	S
					RPD = 0.5		RPDLimit = 25	
Manganese	313.0000	312.0000	50.0000	257.0000	112	%	75 - 125	E
					RPD = 0.3		RPDLimit = 25	
Nickel	85.2000	82.4000	50.0000	37.4000	96	%	75 - 125	
					RPD = 3.3		RPDLimit = 25	
Potassium	1390.0000	1270.0000	500.0000	696.0000	139	%	75 - 125	S
					RPD = 9.0		RPDLimit = 25	
Selenium	55.9000	53.8000	50.0000		112	%	75 - 125	
					RPD = 3.8		RPDLimit = 25	
Silver	57.2000	56.2000	50.0000		114	%	75 - 125	
					RPD = 1.8		RPDLimit = 25	
Sodium	1260.0000	1270.0000	500.0000	724.0000	107	%	75 - 125	
					RPD = 0.8		RPDLimit = 25	
Thallium	146.0000	147.0000	50.0000		292	%	75 - 125	S
					RPD = 0.7		RPDLimit = 25	
Vanadium	73.9000	75.2000	50.0000	18.3000	111	%	75 - 125	
					RPD = 1.7		RPDLimit = 25	
Zinc	101.0000	101.0000	50.0000	50.4000	101	%	75 - 125	
					RPD = 0.0		RPDLimit = 25	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK09A	1	9/21/2009 12:02:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	< .1330						-	
1,2,4-Trichlorobenzene	< .0435						-	
1,2-Dichlorobenzene	< .0627						-	
1,2-Diphenylhydrazine	< .0199						-	
1,3-Dichlorobenzene	< .0698						-	
1,4-Dichlorobenzene	< .0640						-	
2,3,4,6-Tetrachlorophenol	< .1700						-	
2,4,5-Trichlorophenol	< .0193						-	
2,4,6-Trichlorophenol	< .0260						-	
2,4-Dichlorophenol	< .0416						-	
2,4-Dimethylphenol	< .0269						-	
2,4-Dinitrophenol	< .1100						-	
2,4-Dinitrotoluene	< .0202						-	
2,6-Dichlorophenol	< .0416						-	
2,6-Dinitrotoluene	< .0276						-	
2-Chloronaphthalene	< .0334						-	
2-Chlorophenol	< .0392						-	
2-Methylnaphthalene	< .1400						-	
2-Methylphenol	< .0438						-	
2-Naphthylamine	< .0285						-	
2-Nitroaniline	< .0289						-	
2-Nitrophenol	< .0400						-	
3,3´-Dichlorobenzidine	< .1600						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK09A	1	9/21/2009 12:02:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
3-Nitroaniline	< .0705						-	
4,6-Dinitro-2-methylphenol	< .1100						-	
4-Bromophenyl phenyl ether	< .0331						-	
4-Chloro-3-methylphenol	< .0401						-	
4-Chloroaniline	< .0419						-	
4-Chlorophenyl phenyl ether	< .0239						-	
4-Methylphenol	< .0524						-	
4-Nitroaniline	< .1160						-	
4-Nitrophenol	< .0589						-	
Acenaphthene	< .1390						-	
Acenaphthylene	< .1210						-	
Acetophenone	< .1450						-	
Aniline	< .2440						-	
Anthracene	< .1100						-	
Benzidine	< .2500						-	
Benzo(a)anthracene	< .0218						-	
Benzo(a)pyrene	< .0563						-	
Benzo(b)fluoranthene	< .0806						-	
Benzo(g,h,i)perylene	< .1100						-	
Benzo(k)fluoranthene	< .0358						-	
Benzoic acid	< .2840						-	
Benzyl alcohol	< .1590						-	
Bis(2-chloroethoxy)methane	< .1380						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK09A	1	9/21/2009 12:02:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Bis(2-chloroethyl)ether	< .1440						-	
Bis(2-chloroisopropyl)ether	< .1470						-	
Bis(2-ethylhexyl)phthalate	< .1350						-	
Butyl benzyl phthalate	< .1370						-	
Chrysene	< .1200						-	
Di-n-butyl phthalate	< .1260						-	
Di-n-octyl phthalate	< .1670						-	
Dibenz(a,h)anthracene	< .0924						-	
Dibenzofuran	< .1250						-	
Diethyl phthalate	< .1240						-	
Dimethyl phthalate	< .1280						-	
Fluoranthene	< .0867						-	
Fluorene	< .1260						-	
Hexachlorobenzene	< .0750						-	
Hexachlorobutadiene	< .1110						-	
Hexachlorocyclopentadiene	< .1230						-	
Hexachloroethane	< .0888						-	
Indeno(1,2,3-cd)pyrene	< .0963						-	
Isophorone	< .0914						-	
N-Nitrosodi-n-propylamine	< .0650						-	
N-Nitrosodimethylamine	< .0747						-	
N-Nitrosodiphenylamine	< .0727						-	
Naphthalene	< .1430						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK09A	1	9/21/2009 12:02:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Nitrobenzene	< .1450						-	
Pentachlorophenol	< .1260						-	
Phenanthrene	< .0958						-	
Phenol	< .1410						-	
Pyrene	< .0800						-	
Pyridine	< .1580						-	
3-Methylphenol	< .2400						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS09A	1	9/21/2009 12:42:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	1.6000		1.6700		96	%	46 - 135	
1,2,4-Trichlorobenzene	1.7900		1.6700		107	%	44 - 125	
1,2-Dichlorobenzene	1.8700		1.6700		112	%	45 - 125	
1,2-Diphenylhydrazine	1.5200		1.6700		91	%	39 - 135	
1,3-Dichlorobenzene	1.5100		1.6700		90	%	39 - 125	
1,4-Dichlorobenzene	1.6500		1.6700		99	%	35 - 125	
2,3,4,6-Tetrachlorophenol	1.3600		1.6700		81	%	26 - 139	
2,4,5-Trichlorophenol	1.3400		1.6700		80	%	49 - 125	
2,4,6-Trichlorophenol	1.3200		1.6700		79	%	43 - 125	
2,4-Dichlorophenol	1.4900		1.6700		89	%	45 - 125	
2,4-Dimethylphenol	0.6930		1.6700		41	%	32 - 125	
2,4-Dinitrophenol	1.8400		1.6700		110	%	25 - 132	
2,4-Dinitrotoluene	2.0100		1.6700		120	%	48 - 125	
2,6-Dichlorophenol	1.4200		1.6700		85	%	46 - 130	
2,6-Dinitrotoluene	1.5200		1.6700		91	%	48 - 125	
2-Chloronaphthalene	1.5500		1.6700		93	%	45 - 125	
2-Chlorophenol	1.2200		1.6700		73	%	44 - 125	
2-Methylnaphthalene	1.9600		1.6700		117	%	47 - 125	
2-Methylphenol	1.3100		1.6700		78	%	40 - 125	
2-Naphthylamine	1.8600		1.6700		111	%	32 - 135	
2-Nitroaniline	1.2200		1.6700		73	%	44 - 125	
2-Nitrophenol	1.0100		1.6700		60	%	42 - 125	
3,3´-Dichlorobenzidine	1.0700		1.6700		64	%	25 - 128	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS09A	1	9/21/2009 12:42:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
3-Nitroaniline	0.6500		1.6700		39	%	27 - 125	
4,6-Dinitro-2-methylphenol	1.2600		1.6700		75	%	29 - 137	
4-Bromophenyl phenyl ether	1.1900		1.6700		71	%	46 - 125	
4-Chloro-3-methylphenol	1.5500		1.6700		93	%	46 - 125	
4-Chloroaniline	0.6420		1.6700		38	%	25 - 125	
4-Chlorophenyl phenyl ether	1.7000		1.6700		102	%	47 - 125	
4-Methylphenol	1.5800		1.6700		95	%	41 - 125	
4-Nitroaniline	1.1300		1.6700		68	%	34 - 125	
4-Nitrophenol	1.3800		1.6700		83	%	25 - 138	
Acenaphthene	1.6600		1.6700		99	%	46 - 125	
Acenaphthylene	1.5600		1.6700		93	%	44 - 125	
Acetophenone	2.0200		1.6700		121	%	39 - 131	
Aniline	0.9400		1.6700		56	%	29 - 132	
Anthracene	1.6800		1.6700		101	%	53 - 125	
Benzidine	1.5800		1.6700		95	%	15 - 245	
Benzo(a)anthracene	1.6000		1.6700		96	%	52 - 125	
Benzo(a)pyrene	1.6200		1.6700		97	%	50 - 125	
Benzo(b)fluoranthene	1.8100		1.6700		108	%	45 - 125	
Benzo(g,h,i)perylene	1.2500		1.6700		75	%	38 - 126	
Benzo(k)fluoranthene	1.8300		1.6700		110	%	45 - 125	
Benzoic acid	0.8190		1.6700		49	%	25 - 125	
Benzyl alcohol	1.0200		1.6700		61	%	25 - 125	
Bis(2-chloroethoxy)methane	0.9610		1.6700		58	%	43 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS09A	1	9/21/2009 12:42:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Bis(2-chloroethyl)ether	1.0900		1.6700		65	%	38 - 125	
Bis(2-chloroisopropyl)ether	1.5600		1.6700		93	%	25 - 125	
Bis(2-ethylhexyl)phthalate	1.0600		1.6700		63	%	47 - 127	
Butyl benzyl phthalate	1.1000		1.6700		66	%	49 - 125	
Chrysene	1.6500		1.6700		99	%	53 - 125	
Di-n-butyl phthalate	1.3600		1.6700		81	%	56 - 125	
Di-n-octyl phthalate	1.4600		1.6700		87	%	41 - 132	
Dibenz(a,h)anthracene	1.2500		1.6700		75	%	41 - 125	
Dibenzofuran	1.8100		1.6700		108	%	51 - 125	
Diethyl phthalate	1.6400		1.6700		98	%	50 - 125	
Dimethyl phthalate	1.4700		1.6700		88	%	49 - 125	
Fluoranthene	1.8400		1.6700		110	%	54 - 125	
Fluorene	2.0000		1.6700		120	%	49 - 125	
Hexachlorobenzene	1.4100		1.6700		84	%	47 - 125	
Hexachlorobutadiene	2.1100		1.6700		126	%	40 - 135	
Hexachlorocyclopentadiene	1.8600		1.6700		111	%	36 - 135	
Hexachloroethane	2.1700		1.6700		130	%	34 - 135	
Indeno(1,2,3-cd)pyrene	1.2800		1.6700		77	%	38 - 125	
Isophorone	0.7440		1.6700		45	%	43 - 125	
N-Nitrosodi-n-propylamine	1.5000		1.6700		90	%	40 - 125	
N-Nitrosodimethylamine	1.0200		1.6700		61	%	33 - 135	
N-Nitrosodiphenylamine	0.6000		1.6700		36	%	49 - 125	S
Naphthalene	1.6100		1.6700		96	%	40 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS09A	1	9/21/2009 12:42:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Nitrobenzene	0.8490		1.6700		51	%	41 - 125	
Pentachlorophenol	1.6400		1.6700		98	%	25 - 125	
Phenanthrene	1.6900		1.6700		101	%	50 - 125	
Phenol	1.1400		1.6700		68	%	39 - 125	
Pyrene	1.6200		1.6700		97	%	46 - 125	
Pyridine	1.1500		1.6700		69	%	29 - 139	
3-Methylphenol	1.5500		1.6700		93	%	37 - 135	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909007-10AMS	1	9/21/2009 4:03:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	1.6000		1.6700		96	%	46 - 135	
1,2,4-Trichlorobenzene	1.6800		1.6700		101	%	44 - 125	
1,2-Dichlorobenzene	1.7800		1.6700		107	%	45 - 125	
1,2-Diphenylhydrazine	1.5200		1.6700		91	%	39 - 135	
1,3-Dichlorobenzene	1.4200		1.6700		85	%	39 - 125	
1,4-Dichlorobenzene	1.5800		1.6700		95	%	35 - 125	
2,3,4,6-Tetrachlorophenol	1.2300		1.6700		74	%	26 - 139	
2,4,5-Trichlorophenol	1.2700		1.6700		76	%	49 - 125	
2,4,6-Trichlorophenol	1.2400		1.6700		74	%	43 - 125	
2,4-Dichlorophenol	1.2600		1.6700		75	%	45 - 125	
2,4-Dimethylphenol	0.5570		1.6700		33	%	32 - 125	
2,4-Dinitrophenol	1.6300		1.6700		98	%	25 - 132	
2,4-Dinitrotoluene	1.9500		1.6700		117	%	48 - 125	
2,6-Dichlorophenol	1.2900		1.6700		77	%	46 - 130	
2,6-Dinitrotoluene	1.4400		1.6700		86	%	48 - 125	
2-Chloronaphthalene	1.5500		1.6700		93	%	45 - 125	
2-Chlorophenol	1.1000		1.6700		66	%	44 - 125	
2-Methylnaphthalene	1.9000		1.6700		114	%	47 - 125	
2-Methylphenol	1.1400		1.6700		68	%	40 - 125	
2-Naphthylamine	1.8400		1.6700		110	%	32 - 135	
2-Nitroaniline	1.1000		1.6700		66	%	44 - 125	
2-Nitrophenol	0.8770		1.6700		53	%	42 - 125	
3,3´-Dichlorobenzidine	1.4000		1.6700		84	%	25 - 128	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909007-10AMS	1	9/21/2009 4:03:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
3-Nitroaniline	0.7580		1.6700		45	%	27 - 125	
4,6-Dinitro-2-methylphenol	1.2600		1.6700		75	%	29 - 137	
4-Bromophenyl phenyl ether	1.1900		1.6700		71	%	46 - 125	
4-Chloro-3-methylphenol	1.3200		1.6700		79	%	46 - 125	
4-Chloroaniline	0.4540		1.6700		27	%	25 - 125	
4-Chlorophenyl phenyl ether	1.7000		1.6700		102	%	47 - 125	
4-Methylphenol	1.3500		1.6700		81	%	41 - 125	
4-Nitroaniline	1.0500		1.6700		63	%	34 - 125	
4-Nitrophenol	1.1400		1.6700		68	%	25 - 138	
Acenaphthene	1.5500		1.6700		93	%	46 - 125	
Acenaphthylene	1.4900		1.6700		89	%	44 - 125	
Acetophenone	1.8900		1.6700		113	%	39 - 131	
Aniline	0.9070		1.6700		54	%	29 - 132	
Anthracene	1.5100		1.6700		90	%	53 - 125	
Benzidine	1.3500		1.6700		81	%	15 - 245	
Benzo(a)anthracene	1.3900		1.6700		83	%	52 - 125	
Benzo(a)pyrene	1.4100		1.6700		84	%	50 - 125	
Benzo(b)fluoranthene	1.6100		1.6700		96	%	45 - 125	
Benzo(g,h,i)perylene	1.2800		1.6700		77	%	38 - 126	
Benzo(k)fluoranthene	1.6900		1.6700		101	%	45 - 125	
Benzoic acid	0.7070		1.6700		42	%	25 - 125	
Benzyl alcohol	0.8040		1.6700		48	%	25 - 125	
Bis(2-chloroethoxy)methane	0.9610		1.6700		58	%	43 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909007-10AMS	1	9/21/2009 4:03:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Bis(2-chloroethyl)ether	1.0200		1.6700		61	%	38 - 125	
Bis(2-chloroisopropyl)ether	1.5600		1.6700		93	%	25 - 125	
Bis(2-ethylhexyl)phthalate	1.0600		1.6700		63	%	47 - 127	
Butyl benzyl phthalate	0.8890		1.6700		53	%	49 - 125	
Chrysene	1.4800		1.6700		89	%	53 - 125	
Di-n-butyl phthalate	1.2100		1.6700		72	%	56 - 125	
Di-n-octyl phthalate	1.2100		1.6700		72	%	41 - 132	
Dibenz(a,h)anthracene	1.2600		1.6700		75	%	41 - 125	
Dibenzofuran	1.8200		1.6700		109	%	51 - 125	
Diethyl phthalate	1.4500		1.6700		87	%	50 - 125	
Dimethyl phthalate	1.3400		1.6700		80	%	49 - 125	
Fluoranthene	1.7600		1.6700		105	%	54 - 125	
Fluorene	1.9400		1.6700		116	%	49 - 125	
Hexachlorobenzene	1.2900		1.6700		77	%	47 - 125	
Hexachlorobutadiene	2.1100		1.6700		126	%	40 - 135	
Hexachlorocyclopentadiene	1.9500		1.6700		117	%	36 - 135	
Hexachloroethane	2.1100		1.6700		126	%	34 - 135	
Indeno(1,2,3-cd)pyrene	1.2800		1.6700		77	%	38 - 125	
Isophorone	0.6100		1.6700		37	%	43 - 125	S
N-Nitrosodi-n-propylamine	1.3300		1.6700		80	%	40 - 125	
N-Nitrosodimethylamine	0.8470		1.6700		51	%	33 - 135	
N-Nitrosodiphenylamine	0.6550		1.6700		39	%	49 - 125	S
Naphthalene	1.5300		1.6700		92	%	40 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909007-10AMS	1	9/21/2009 4:03:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Nitrobenzene	0.8130		1.6700		49	%	41 - 125	
Pentachlorophenol	1.4100		1.6700		84	%	25 - 125	
Phenanthrene	1.5900		1.6700		95	%	50 - 125	
Phenol	1.0500		1.6700		63	%	39 - 125	
Pyrene	1.3700		1.6700		82	%	46 - 125	
Pyridine	0.7610		1.6700		46	%	29 - 139	
3-Methylphenol	1.3400		1.6700		80	%	22 - 148	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909007-10AMSD	1	9/21/2009 4:43:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	1.5100	1.6000	1.6700		90	%	46 - 135	
					RPD = 5.8		RPDLimit = 30	
1,2,4-Trichlorobenzene	1.6700	1.6800	1.6700		100	%	44 - 125	
					RPD = 0.6		RPDLimit = 30	
1,2-Dichlorobenzene	1.7400	1.7800	1.6700		104	%	45 - 125	
					RPD = 2.3		RPDLimit = 30	
1,2-Diphenylhydrazine	1.5200	1.5200	1.6700		91	%	39 - 135	
					RPD = 0.0		RPDLimit = 30	
1,3-Dichlorobenzene	1.4200	1.4200	1.6700		85	%	39 - 125	
					RPD = 0.0		RPDLimit = 30	
1,4-Dichlorobenzene	1.5500	1.5800	1.6700		93	%	35 - 125	
					RPD = 1.9		RPDLimit = 30	
2,3,4,6-Tetrachlorophenol	1.2000	1.2300	1.6700		72	%	26 - 139	
					RPD = 2.5		RPDLimit = 30	
2,4,5-Trichlorophenol	1.2700	1.2700	1.6700		76	%	49 - 125	
					RPD = 0.0		RPDLimit = 30	
2,4,6-Trichlorophenol	1.3400	1.2400	1.6700		80	%	43 - 125	
					RPD = 7.8		RPDLimit = 30	
2,4-Dichlorophenol	1.4000	1.2600	1.6700		84	%	45 - 125	
					RPD = 10.5		RPDLimit = 30	
2,4-Dimethylphenol	0.6170	0.5570	1.6700		37	%	32 - 125	
					RPD = 10.2		RPDLimit = 30	
2,4-Dinitrophenol	1.7800	1.6300	1.6700		107	%	25 - 132	
					RPD = 8.8		RPDLimit = 30	
2,4-Dinitrotoluene	1.8800	1.9500	1.6700		113	%	48 - 125	
					RPD = 3.7		RPDLimit = 30	
2,6-Dichlorophenol	1.3800	1.2900	1.6700		83	%	46 - 130	
					RPD = 6.7		RPDLimit = 30	
2,6-Dinitrotoluene	1.3100	1.4400	1.6700		78	%	48 - 125	
					RPD = 9.5		RPDLimit = 30	
2-Chloronaphthalene	1.5300	1.5500	1.6700		92	%	45 - 125	
					RPD = 1.3		RPDLimit = 30	
2-Chlorophenol	1.2000	1.1000	1.6700		72	%	44 - 125	
					RPD = 8.7		RPDLimit = 30	
2-Methylnaphthalene	2.0100	1.9000	1.6700		120	%	47 - 125	
					RPD = 5.6		RPDLimit = 30	
2-Methylphenol	1.2700	1.1400	1.6700		76	%	40 - 125	
					RPD = 10.8		RPDLimit = 30	
2-Naphthylamine	1.6900	1.8400	1.6700		101	%	32 - 135	
					RPD = 8.5		RPDLimit = 30	
2-Nitroaniline	1.1300	1.1000	1.6700		68	%	44 - 125	
					RPD = 2.7		RPDLimit = 30	
2-Nitrophenol	0.9790	0.8770	1.6700		59	%	42 - 125	
					RPD = 11.0		RPDLimit = 30	
3,3´-Dichlorobenzidine	1.3800	1.4000	1.6700		83	%	25 - 128	
					RPD = 1.4		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909007-10AMSD	1	9/21/2009 4:43:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
3-Nitroaniline	0.9380	0.7580	1.6700		56	%	27 - 125	
					RPD = 21.2		RPDLimit = 30	
4,6-Dinitro-2-methylphenol	1.4200	1.2600	1.6700		85	%	29 - 137	
					RPD = 11.9		RPDLimit = 30	
4-Bromophenyl phenyl ether	1.2300	1.1900	1.6700		74	%	46 - 125	
					RPD = 3.3		RPDLimit = 30	
4-Chloro-3-methylphenol	1.5000	1.3200	1.6700		90	%	46 - 125	
					RPD = 12.8		RPDLimit = 30	
4-Chloroaniline	1.3700	0.4540	1.6700		82	%	25 - 125	
					RPD = 100.4		RPDLimit = 30	
4-Chlorophenyl phenyl ether	1.6600	1.7000	1.6700		99	%	47 - 125	
					RPD = 2.4		RPDLimit = 30	
4-Methylphenol	1.5100	1.3500	1.6700		90	%	41 - 125	
					RPD = 11.2		RPDLimit = 30	
4-Nitroaniline	1.2500	1.0500	1.6700		75	%	34 - 125	
					RPD = 17.4		RPDLimit = 30	
4-Nitrophenol	1.1300	1.1400	1.6700		68	%	25 - 138	
					RPD = 0.9		RPDLimit = 30	
Acenaphthene	1.5500	1.5500	1.6700		93	%	46 - 125	
					RPD = 0.0		RPDLimit = 30	
Acenaphthylene	1.4500	1.4900	1.6700		87	%	44 - 125	
					RPD = 2.7		RPDLimit = 30	
Acetophenone	2.0000	1.8900	1.6700		120	%	39 - 131	
					RPD = 5.7		RPDLimit = 30	
Aniline	1.0400	0.9070	1.6700		62	%	29 - 132	
					RPD = 13.7		RPDLimit = 30	
Anthracene	1.5900	1.5100	1.6700		95	%	53 - 125	
					RPD = 5.2		RPDLimit = 30	
Benzidine	1.1800	1.3500	1.6700		71	%	15 - 245	
					RPD = 13.4		RPDLimit = 30	
Benzo(a)anthracene	1.5100	1.3900	1.6700		90	%	52 - 125	
					RPD = 8.3		RPDLimit = 30	
Benzo(a)pyrene	1.5200	1.4100	1.6700		91	%	50 - 125	
					RPD = 7.5		RPDLimit = 30	
Benzo(b)fluoranthene	1.6800	1.6100	1.6700		101	%	45 - 125	
					RPD = 4.3		RPDLimit = 30	
Benzo(g,h,i)perylene	1.3300	1.2800	1.6700		80	%	38 - 126	
					RPD = 3.8		RPDLimit = 30	
Benzo(k)fluoranthene	1.6000	1.6900	1.6700		96	%	45 - 125	
					RPD = 5.5		RPDLimit = 30	
Benzoic acid	0.6840	0.7070	1.6700		41	%	25 - 125	
					RPD = 3.3		RPDLimit = 30	
Benzyl alcohol	0.9450	0.8040	1.6700		57	%	25 - 125	
					RPD = 16.1		RPDLimit = 30	
Bis(2-chloroethoxy)methane	0.9940	0.9610	1.6700		60	%	43 - 125	
					RPD = 3.4		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909007-10AMSD	1	9/21/2009 4:43:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Bis(2-chloroethyl)ether	1.1100	1.0200	1.6700		66	%	38 - 125	
					RPD = 8.5		RPDLimit = 30	
Bis(2-chloroisopropyl)ether	1.6500	1.5600	1.6700		99	%	25 - 125	
					RPD = 5.6		RPDLimit = 30	
Bis(2-ethylhexyl)phthalate	1.0600	1.0600	1.6700		63	%	47 - 127	
					RPD = 0.0		RPDLimit = 30	
Butyl benzyl phthalate	0.9780	0.8890	1.6700		59	%	49 - 125	
					RPD = 9.5		RPDLimit = 30	
Chrysene	1.5200	1.4800	1.6700		91	%	53 - 125	
					RPD = 2.7		RPDLimit = 30	
Di-n-butyl phthalate	1.2800	1.2100	1.6700		77	%	56 - 125	
					RPD = 5.6		RPDLimit = 30	
Di-n-octyl phthalate	1.2300	1.2100	1.6700		74	%	41 - 132	
					RPD = 1.6		RPDLimit = 30	
Dibenz(a,h)anthracene	1.3200	1.2600	1.6700		79	%	41 - 125	
					RPD = 4.7		RPDLimit = 30	
Dibenzofuran	1.7100	1.8200	1.6700		102	%	51 - 125	
					RPD = 6.2		RPDLimit = 30	
Diethyl phthalate	1.3600	1.4500	1.6700		81	%	50 - 125	
					RPD = 6.4		RPDLimit = 30	
Dimethyl phthalate	1.2800	1.3400	1.6700		77	%	49 - 125	
					RPD = 4.6		RPDLimit = 30	
Fluoranthene	1.8100	1.7600	1.6700		108	%	54 - 125	
					RPD = 2.8		RPDLimit = 30	
Fluorene	1.8600	1.9400	1.6700		111	%	49 - 125	
					RPD = 4.2		RPDLimit = 30	
Hexachlorobenzene	1.3400	1.2900	1.6700		80	%	47 - 125	
					RPD = 3.8		RPDLimit = 30	
Hexachlorobutadiene	2.0500	2.1100	1.6700		123	%	40 - 135	
					RPD = 2.9		RPDLimit = 30	
Hexachlorocyclopentadiene	1.9400	1.9500	1.6700		116	%	36 - 135	
					RPD = 0.5		RPDLimit = 30	
Hexachloroethane	2.1300	2.1100	1.6700		128	%	34 - 135	
					RPD = 0.9		RPDLimit = 30	
Indeno(1,2,3-cd)pyrene	1.3500	1.2800	1.6700		81	%	38 - 125	
					RPD = 5.3		RPDLimit = 30	
Isophorone	0.6680	0.6100	1.6700		40	%	43 - 125	S
					RPD = 9.1		RPDLimit = 30	
N-Nitrosodi-n-propylamine	1.4900	1.3300	1.6700		89	%	40 - 125	
					RPD = 11.3		RPDLimit = 30	
N-Nitrosodimethylamine	0.8180	0.8470	1.6700		49	%	33 - 135	
					RPD = 3.5		RPDLimit = 30	
N-Nitrosodiphenylamine	0.5790	0.6550	1.6700		35	%	49 - 125	S
					RPD = 12.3		RPDLimit = 30	
Naphthalene	1.5400	1.5300	1.6700		92	%	40 - 125	
					RPD = 0.7		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909007-10AMSD	1	9/21/2009 4:43:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Nitrobenzene	0.8380	0.8130	1.6700		50	%	41 - 125	
					RPD = 3.0		RPDLimit = 30	
Pentachlorophenol	1.4900	1.4100	1.6700		89	%	25 - 125	
					RPD = 5.5		RPDLimit = 30	
Phenanthrene	1.6600	1.5900	1.6700		99	%	50 - 125	
					RPD = 4.3		RPDLimit = 30	
Phenol	1.1500	1.0500	1.6700		69	%	39 - 125	
					RPD = 9.1		RPDLimit = 30	
Pyrene	1.4300	1.3700	1.6700		86	%	46 - 125	
					RPD = 4.3		RPDLimit = 30	
Pyridine	0.8490	0.7610	1.6700		51	%	29 - 139	
					RPD = 10.9		RPDLimit = 30	
3-Methylphenol	1.5100	1.3400	1.6700		90	%	22 - 145	
					RPD = 11.9		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** ug/Kg **Analyst...:** SLF

Method Description..: Semivolatiles SIM **Batch.....:** SVOC1_090922A **RunID:** SVOC1_090922A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK09A	1	9/22/2009 3:04:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2-Diphenylhydrazine	< 9.2300						-	
2,4-Dinitrotoluene	< 12.6000						-	
2,6-Dinitrotoluene	< 11.2000						-	
2-Naphthylamine	< 20.9000						-	
3,3´-Dichlorobenzidine	< 18.2000						-	
4-Bromophenylphenylether	< 8.9600						-	
4-Chlorophenylphenylether	< 5.0500						-	
Benzidine	< 39.0000						-	
Benzo(a)anthracene	< 17.6000						-	
Benzo(a)pyrene	< 9.2600						-	
Benzo(b)fluoranthene	< 12.1000						-	
Benzo(k)fluoranthene	< 13.2000						-	
Bis(2-chloroethoxy)methane	< 9.0800						-	
Dibenz(a,h)anthracene	< 7.8900						-	
Hexachlorobenzene	< 13.0000						-	
Indeno(1,2,3-cd)pyrene	< 15.8000						-	
N-Nitrosodi-n-propylamine	< 10.1000						-	
N-Nitrosodimethylamine	< 9.5900						-	
Pentachlorophenol	< 42.0000						-	
Bis(2-chloroethyl)ether	< 12.800						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW7196A **Units.....:** mg/kg **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_S-9/9/2009 **RunID:** UV1_090909B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	BLK	20	9/9/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	< .2100						-	

Test Method.....: SW7196A **Units.....:** mg/kg **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_S-9/9/2009 **RunID:** UV1_090909B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	LCS	20	9/9/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	1.0000		1.0000		100	%	80 - 120	

Test Method.....: SW7196A **Units.....:** mg/kg **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_S-9/9/2009 **RunID:** UV1_090909B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0909018-08AMS	20	9/9/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	1.0000		1.0000		100	%	80 - 120	

Test Method.....: SW7196A **Units.....:** mg/kg **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_S-9/9/2009 **RunID:** UV1_090909B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSD	Matrix Spike Duplicate	0909018-08AMSD	20	9/9/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	0.9000	1.0000	1.0000		90	%	80 - 120	

RPD = 10.5 RPDLimit = 30

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090909A **RunID:** VOC1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK09A	1	9/9/2009 3:55:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	< .8580						-	
1,1,1-Trichloroethane	< 1.2000						-	
1,1,2,2-Tetrachloroethane	< .5760						-	
1,1,2-Trichloroethane	< .9420						-	
1,1-Dichloroethane	< .8750						-	
1,1-Dichloroethene	< 1.0100						-	
1,1-Dichloropropene	< .6590						-	
1,2,3-Trichlorobenzene	< .8520						-	
1,2,3-Trichloropropane	< 1.0800						-	
1,2,4-Trichlorobenzene	< 2.5000						-	
1,2,4-Trimethylbenzene	< .6350						-	
1,2-Dibromo-3-chloropropane	< 1.4600						-	
1,2-Dibromoethane	< .7420						-	
1,2-Dichlorobenzene	< .6190						-	
1,2-Dichloroethane	< .6750						-	
1,2-Dichloropropane	< .8640						-	
1,3,5-Trimethylbenzene	< .7400						-	
1,3-Dichlorobenzene	< .7830						-	
1,3-Dichloropropane	< .5810						-	
1,4-Dichlorobenzene	< .6340						-	
1-Chlorohexane	< .4230						-	
2,2-Dichloropropane	< .7960						-	
2-Butanone	< .4220						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090909A **RunID:** VOC1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK09A	1	9/9/2009 3:55:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Chlorotoluene	< 1.0500						-	
2-Hexanone	< .6560						-	
4-Chlorotoluene	< .8410						-	
4-Isopropyltoluene	< 2.2200						-	
4-Methyl-2-pentanone	< 1.4300						-	
Acetone	< 1.1400						-	
Allyl chloride	< 2.4100						-	
Benzene	< .5790						-	
Bromobenzene	< 1.0700						-	
Bromochloromethane	< .9700						-	
Bromodichloromethane	< .8990						-	
Bromoform	< .6570						-	
Bromomethane	< 1.7600						-	
Carbon disulfide	< 1.1500						-	
Carbon tetrachloride	< .7290						-	
Chlorobenzene	< .9680						-	
Chloroethane	< 1.7200						-	
Chloroform	< 1.0100						-	
Chloromethane	< 3.0500						-	
cis-1,2-Dichloroethene	< .9140						-	
cis-1,3-Dichloropropene	< 1.0100						-	
Dibromochloromethane	< .7890						-	
Dibromomethane	< 1.3400						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090909A **RunID:** VOC1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK09A	1	9/9/2009 3:55:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Dichlorodifluoromethane	< 1.6800						-	
Ethylbenzene	< .7990						-	
Hexachlorobutadiene	< 1.8800						-	
Iodomethane	< 1.0300						-	
Isopropylbenzene	< 1.0500						-	
m,p-Xylene	< 1.0100						-	
Methyl tert-butyl ether	< .8070						-	
Methylene chloride	< 2.0000						-	
n-Butylbenzene	< .7080						-	
n-Propylbenzene	< .9640						-	
Naphthalene	< .8490						-	
o-Xylene	< .8080						-	
sec-Butylbenzene	< 1.3300						-	
Styrene	< .8350						-	
tert-Butylbenzene	< 1.0500						-	
Tetrachloroethene	< .7390						-	
Toluene	< .6150						-	
trans-1,2-Dichloroethene	< .8930						-	
trans-1,3-Dichloropropene	< 1.0600						-	
Trichloroethene	< .7310						-	
Trichlorofluoromethane	< 1.6900						-	
Vinyl chloride	< .9200						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090909A **RunID:** VOC1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS09A	1	9/9/2009 4:38:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	45.6000		50.0000		91	%	56 - 140	
							RPDLimit = 30	
1,1,1-Trichloroethane	50.0000		50.0000		100	%	42 - 177	
							RPDLimit = 30	
1,1,2,2-Tetrachloroethane	47.1000		50.0000		94	%	55 - 128	
							RPDLimit = 30	
1,1,2-Trichloroethane	48.6000		50.0000		97	%	75 - 121	
							RPDLimit = 30	
1,1-Dichloroethane	52.1000		50.0000		104	%	55 - 150	
							RPDLimit = 30	
1,1-Dichloroethene	54.6000		50.0000		109	%	59 - 143	
							RPDLimit = 30	
1,1-Dichloropropene	47.0000		50.0000		94	%	67 - 127	
							RPDLimit = 30	
1,2,3-Trichlorobenzene	47.2000		50.0000		94	%	48 - 123	
							RPDLimit = 30	
1,2,3-Trichloropropane	45.5000		50.0000		91	%	61 - 129	
							RPDLimit = 30	
1,2,4-Trichlorobenzene	40.3000		50.0000		81	%	50 - 130	
							RPDLimit = 30	
1,2,4-Trimethylbenzene	45.3000		50.0000		91	%	64 - 109	
							RPDLimit = 30	
1,2-Dibromo-3-chloropropane	47.2000		50.0000		94	%	12 - 160	
							RPDLimit = 30	
1,2-Dibromoethane	48.6000		50.0000		97	%	60 - 132	
							RPDLimit = 30	
1,2-Dichlorobenzene	45.8000		50.0000		92	%	65 - 129	
							RPDLimit = 30	
1,2-Dichloroethane	44.4000		50.0000		89	%	74 - 129	
							RPDLimit = 30	
1,2-Dichloropropane	47.6000		50.0000		95	%	48 - 156	
							RPDLimit = 30	
1,3,5-Trimethylbenzene	45.0000		50.0000		90	%	60 - 132	
							RPDLimit = 30	
1,3-Dichlorobenzene	47.0000		50.0000		94	%	64 - 132	
							RPDLimit = 30	
1,3-Dichloropropane	47.3000		50.0000		95	%	81 - 110	
							RPDLimit = 30	
1,4-Dichlorobenzene	45.1000		50.0000		90	%	68 - 127	
							RPDLimit = 30	
1-Chlorohexane	46.0000		50.0000		92	%	11 - 158	
							RPDLimit = 30	
2,2-Dichloropropane	51.7000		50.0000		103	%	21 - 201	
							RPDLimit = 30	
2-Butanone	93.9000		100.0000		94	%	45 - 165	
							RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090909A **RunID:** VOC1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS09A	1	9/9/2009 4:38:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Chlorotoluene	46.3000		50.0000		93	%	60 - 130	
							RPDLimit = 30	
2-Hexanone	90.0000		100.0000		90	%	31 - 203	
							RPDLimit = 30	
4-Chlorotoluene	44.8000		50.0000		90	%	61 - 117	
							RPDLimit = 30	
4-Isopropyltoluene	46.7000		50.0000		93	%	62 - 120	
							RPDLimit = 30	
4-Methyl-2-pentanone	90.5000		100.0000		91	%	30 - 177	
							RPDLimit = 30	
Acetone	91.1000		100.0000		91	%	35 - 139	
							RPDLimit = 30	
Allyl chloride	55.4000		50.0000		111	%	45 - 140	
							RPDLimit = 30	
Benzene	47.2000		50.0000		94	%	70 - 121	
							RPDLimit = 30	
Bromobenzene	45.0000		50.0000		90	%	57 - 134	
							RPDLimit = 30	
Bromochloromethane	55.8000		50.0000		112	%	61 - 146	
							RPDLimit = 30	
Bromodichloromethane	44.9000		50.0000		90	%	60 - 143	
							RPDLimit = 30	
Bromoform	48.7000		50.0000		97	%	40 - 136	
							RPDLimit = 30	
Bromomethane	58.5000		50.0000		117	%	48 - 146	
							RPDLimit = 30	
Carbon disulfide	56.4000		50.0000		113	%	10 - 187	
							RPDLimit = 30	
Carbon tetrachloride	44.4000		50.0000		89	%	30 - 160	
							RPDLimit = 30	
Chlorobenzene	47.3000		50.0000		95	%	62 - 132	
							RPDLimit = 30	
Chloroethane	57.0000		50.0000		114	%	59 - 144	
							RPDLimit = 30	
Chloroform	51.0000		50.0000		102	%	62 - 152	
							RPDLimit = 30	
Chloromethane	54.2000		50.0000		108	%	49 - 149	
							RPDLimit = 30	
cis-1,2-Dichloroethene	53.1000		50.0000		106	%	54 - 146	
							RPDLimit = 30	
cis-1,3-Dichloropropene	47.6000		50.0000		95	%	60 - 134	
							RPDLimit = 30	
Dibromochloromethane	47.9000		50.0000		96	%	48 - 141	
							RPDLimit = 30	
Dibromomethane	46.0000		50.0000		92	%	58 - 144	
							RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090909A **RunID:** VOC1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS09A	1	9/9/2009 4:38:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Dichlorodifluoromethane	54.3000		50.0000		109	%	41 - 154	
							RPDLimit = 30	
Ethylbenzene	46.3000		50.0000		93	%	66 - 128	
							RPDLimit = 30	
Hexachlorobutadiene	45.6000		50.0000		91	%	56 - 150	
							RPDLimit = 30	
Iodomethane	55.6000		50.0000		111	%	27 - 143	
							RPDLimit = 30	
Isopropylbenzene	44.6000		50.0000		89	%	46 - 144	
							RPDLimit = 30	
m,p-Xylene	94.8000		100.0000		95	%	47 - 146	
							RPDLimit = 30	
Methyl tert-butyl ether	52.4000		50.0000		105	%	61 - 140	
							RPDLimit = 30	
Methylene chloride	59.5000		50.0000		119	%	34 - 183	
							RPDLimit = 30	
n-Butylbenzene	46.6000		50.0000		93	%	59 - 134	
							RPDLimit = 30	
n-Propylbenzene	45.0000		50.0000		90	%	57 - 120	
							RPDLimit = 30	
Naphthalene	47.3000		50.0000		95	%	18 - 144	
							RPDLimit = 30	
o-Xylene	48.8000		50.0000		98	%	72 - 130	
							RPDLimit = 30	
sec-Butylbenzene	46.6000		50.0000		93	%	46 - 146	
							RPDLimit = 30	
Styrene	48.4000		50.0000		97	%	62 - 134	
							RPDLimit = 30	
tert-Butylbenzene	44.9000		50.0000		90	%	64 - 123	
							RPDLimit = 30	
Tetrachloroethene	47.6000		50.0000		95	%	47 - 147	
							RPDLimit = 30	
Toluene	47.1000		50.0000		94	%	70 - 125	
							RPDLimit = 30	
trans-1,2-Dichloroethene	53.1000		50.0000		106	%	54 - 142	
							RPDLimit = 30	
trans-1,3-Dichloropropene	47.7000		50.0000		95	%	54 - 134	
							RPDLimit = 30	
Trichloroethene	46.9000		50.0000		94	%	74 - 123	
							RPDLimit = 30	
Trichlorofluoromethane	51.5000		50.0000		103	%	46 - 167	
							RPDLimit = 30	
Vinyl chloride	55.1000		50.0000		110	%	54 - 161	
							RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090909A **RunID:** VOC1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909007-05AMS	1	9/9/2009 8:17:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	43.0000		50.0000		86	%	56 - 140	
							RPDLimit = 30	
1,1,1-Trichloroethane	51.8000		50.0000		104	%	42 - 177	
							RPDLimit = 30	
1,1,2,2-Tetrachloroethane	47.9000		50.0000		96	%	55 - 128	
							RPDLimit = 30	
1,1,2-Trichloroethane	43.1000		50.0000		86	%	75 - 121	
							RPDLimit = 30	
1,1-Dichloroethane	49.8000		50.0000		100	%	55 - 150	
							RPDLimit = 30	
1,1-Dichloroethene	46.2000		50.0000		92	%	59 - 143	
							RPDLimit = 30	
1,1-Dichloropropene	43.0000		50.0000		86	%	67 - 127	
							RPDLimit = 30	
1,2,3-Trichlorobenzene	41.0000		50.0000		82	%	48 - 123	
							RPDLimit = 30	
1,2,3-Trichloropropane	45.2000		50.0000		90	%	61 - 129	
							RPDLimit = 30	
1,2,4-Trichlorobenzene	41.9000		50.0000		84	%	50 - 130	
							RPDLimit = 30	
1,2,4-Trimethylbenzene	45.4000		50.0000		91	%	64 - 109	
							RPDLimit = 30	
1,2-Dibromo-3-chloropropane	50.0000		50.0000		100	%	12 - 160	
							RPDLimit = 30	
1,2-Dibromoethane	42.6000		50.0000		85	%	60 - 132	
							RPDLimit = 30	
1,2-Dichlorobenzene	42.2000		50.0000		84	%	65 - 129	
							RPDLimit = 30	
1,2-Dichloroethane	47.5000		50.0000		95	%	74 - 129	
							RPDLimit = 30	
1,2-Dichloropropane	43.7000		50.0000		87	%	48 - 156	
							RPDLimit = 30	
1,3,5-Trimethylbenzene	46.1000		50.0000		92	%	60 - 132	
							RPDLimit = 30	
1,3-Dichlorobenzene	42.2000		50.0000		84	%	64 - 132	
							RPDLimit = 30	
1,3-Dichloropropane	42.9000		50.0000		86	%	81 - 110	
							RPDLimit = 30	
1,4-Dichlorobenzene	41.4000		50.0000		83	%	68 - 127	
							RPDLimit = 30	
1-Chlorohexane	40.7000		50.0000		81	%	11 - 158	
							RPDLimit = 30	
2,2-Dichloropropane	51.4000		50.0000		103	%	21 - 201	
							RPDLimit = 30	
2-Butanone	96.3000		100.0000		96	%	45 - 165	
							RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090909A **RunID:** VOC1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909007-05AMS	1	9/9/2009 8:17:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Chlorotoluene	45.4000		50.0000		91	%	60 - 130	
							RPDLimit = 30	
2-Hexanone	98.9000		100.0000		99	%	31 - 203	
							RPDLimit = 30	
4-Chlorotoluene	44.5000		50.0000		89	%	61 - 117	
							RPDLimit = 30	
4-Isopropyltoluene	45.4000		50.0000		91	%	62 - 120	
							RPDLimit = 30	
4-Methyl-2-pentanone	97.4000		100.0000		97	%	30 - 177	
							RPDLimit = 30	
Acetone	89.7000		100.0000		90	%	35 - 139	
							RPDLimit = 30	
Allyl chloride	46.6000		50.0000		93	%	45 - 140	
							RPDLimit = 30	
Benzene	41.6000		50.0000		83	%	70 - 121	
							RPDLimit = 30	
Bromobenzene	43.2000		50.0000		86	%	57 - 134	
							RPDLimit = 30	
Bromochloromethane	48.4000		50.0000		97	%	61 - 146	
							RPDLimit = 30	
Bromodichloromethane	44.9000		50.0000		90	%	60 - 143	
							RPDLimit = 30	
Bromoform	41.0000		50.0000		82	%	40 - 136	
							RPDLimit = 30	
Bromomethane	50.8000		50.0000		102	%	48 - 146	
							RPDLimit = 30	
Carbon disulfide	47.4000		50.0000		95	%	10 - 187	
							RPDLimit = 30	
Carbon tetrachloride	44.4000		50.0000		89	%	30 - 160	
							RPDLimit = 30	
Chlorobenzene	38.8000		50.0000		78	%	62 - 132	
							RPDLimit = 30	
Chloroethane	50.9000		50.0000		102	%	59 - 144	
							RPDLimit = 30	
Chloroform	50.0000		50.0000		100	%	62 - 152	
							RPDLimit = 30	
Chloromethane	43.4000		50.0000		87	%	49 - 149	
							RPDLimit = 30	
cis-1,2-Dichloroethene	46.5000		50.0000		93	%	54 - 146	
							RPDLimit = 30	
cis-1,3-Dichloropropene	41.1000		50.0000		82	%	60 - 134	
							RPDLimit = 30	
Dibromochloromethane	43.4000		50.0000		87	%	48 - 141	
							RPDLimit = 30	
Dibromomethane	42.5000		50.0000		85	%	58 - 144	
							RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090909A **RunID:** VOC1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909007-05AMS	1	9/9/2009 8:17:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Dichlorodifluoromethane	53.8000		50.0000		108	%	41 - 154	
							RPDLimit = 30	
Ethylbenzene	41.7000		50.0000		83	%	66 - 128	
							RPDLimit = 30	
Hexachlorobutadiene	41.1000		50.0000		82	%	56 - 150	
							RPDLimit = 30	
Iodomethane	45.7000		50.0000		91	%	27 - 143	
							RPDLimit = 30	
Isopropylbenzene	46.2000		50.0000		92	%	46 - 144	
							RPDLimit = 30	
m,p-Xylene	79.2000		100.0000		79	%	47 - 146	
							RPDLimit = 30	
Methyl tert-butyl ether	50.6000		50.0000		101	%	61 - 140	
							RPDLimit = 30	
Methylene chloride	53.8000		50.0000		108	%	34 - 183	
							RPDLimit = 30	
n-Butylbenzene	44.0000		50.0000		88	%	59 - 134	
							RPDLimit = 30	
n-Propylbenzene	45.9000		50.0000		92	%	57 - 120	
							RPDLimit = 30	
Naphthalene	39.0000		50.0000		78	%	18 - 144	
							RPDLimit = 30	
o-Xylene	42.1000		50.0000		84	%	72 - 130	
							RPDLimit = 30	
sec-Butylbenzene	45.4000		50.0000		91	%	46 - 146	
							RPDLimit = 30	
Styrene	45.0000		50.0000		90	%	62 - 134	
							RPDLimit = 30	
tert-Butylbenzene	38.6000		50.0000		77	%	64 - 123	
							RPDLimit = 30	
Tetrachloroethene	39.6000		50.0000		79	%	47 - 147	
							RPDLimit = 30	
Toluene	41.3000		50.0000		83	%	70 - 125	
							RPDLimit = 30	
trans-1,2-Dichloroethene	45.2000		50.0000		90	%	54 - 142	
							RPDLimit = 30	
trans-1,3-Dichloropropene	44.0000		50.0000		88	%	54 - 134	
							RPDLimit = 30	
Trichloroethene	40.6000		50.0000		81	%	74 - 123	
							RPDLimit = 30	
Trichlorofluoromethane	52.6000		50.0000		105	%	46 - 167	
							RPDLimit = 30	
Vinyl chloride	46.5000		50.0000		93	%	54 - 161	
							RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090909A **RunID:** VOC1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909007-05AMSD	1	9/9/2009 9:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	41.2000	43.0000	50.0000		82	%	56 - 140	
					RPD = 4.3		RPDLimit = 30	
1,1,1-Trichloroethane	48.6000	51.8000	50.0000		97	%	42 - 177	
					RPD = 6.4		RPDLimit = 30	
1,1,2,2-Tetrachloroethane	47.5000	47.9000	50.0000		95	%	55 - 128	
					RPD = 0.8		RPDLimit = 30	
1,1,2-Trichloroethane	42.0000	43.1000	50.0000		84	%	75 - 121	
					RPD = 2.6		RPDLimit = 30	
1,1-Dichloroethane	47.7000	49.8000	50.0000		95	%	55 - 150	
					RPD = 4.3		RPDLimit = 30	
1,1-Dichloroethene	45.3000	46.2000	50.0000		91	%	59 - 143	
					RPD = 2.0		RPDLimit = 30	
1,1-Dichloropropene	40.5000	43.0000	50.0000		81	%	67 - 127	
					RPD = 6.0		RPDLimit = 30	
1,2,3-Trichlorobenzene	45.2000	41.0000	50.0000		90	%	48 - 123	
					RPD = 9.7		RPDLimit = 30	
1,2,3-Trichloropropane	43.6000	45.2000	50.0000		87	%	61 - 129	
					RPD = 3.6		RPDLimit = 30	
1,2,4-Trichlorobenzene	45.7000	41.9000	50.0000		91	%	50 - 130	
					RPD = 8.7		RPDLimit = 30	
1,2,4-Trimethylbenzene	44.7000	45.4000	50.0000		89	%	64 - 109	
					RPD = 1.6		RPDLimit = 30	
1,2-Dibromo-3-chloropropane	52.1000	50.0000	50.0000		104	%	12 - 160	
					RPD = 4.1		RPDLimit = 30	
1,2-Dibromoethane	41.6000	42.6000	50.0000		83	%	60 - 132	
					RPD = 2.4		RPDLimit = 30	
1,2-Dichlorobenzene	43.5000	42.2000	50.0000		87	%	65 - 129	
					RPD = 3.0		RPDLimit = 30	
1,2-Dichloroethane	44.5000	47.5000	50.0000		89	%	74 - 129	
					RPD = 6.5		RPDLimit = 30	
1,2-Dichloropropane	41.9000	43.7000	50.0000		84	%	48 - 156	
					RPD = 4.2		RPDLimit = 30	
1,3,5-Trimethylbenzene	45.0000	46.1000	50.0000		90	%	60 - 132	
					RPD = 2.4		RPDLimit = 30	
1,3-Dichlorobenzene	43.8000	42.2000	50.0000		88	%	64 - 132	
					RPD = 3.7		RPDLimit = 30	
1,3-Dichloropropane	41.5000	42.9000	50.0000		83	%	81 - 110	
					RPD = 3.3		RPDLimit = 30	
1,4-Dichlorobenzene	42.2000	41.4000	50.0000		84	%	68 - 127	
					RPD = 1.9		RPDLimit = 30	
1-Chlorohexane	39.0000	40.7000	50.0000		78	%	11 - 158	
					RPD = 4.3		RPDLimit = 30	
2,2-Dichloropropane	49.4000	51.4000	50.0000		99	%	21 - 201	
					RPD = 4.0		RPDLimit = 30	
2-Butanone	98.9000	96.3000	100.0000		99	%	45 - 165	
					RPD = 2.7		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090909A **RunID:** VOC1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909007-05AMSD	1	9/9/2009 9:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Chlorotoluene	45.6000	45.4000	50.0000		91	%	60 - 130	
					RPD = 0.4		RPDLimit = 30	
2-Hexanone	90.0000	98.9000	100.0000		90	%	31 - 203	
					RPD = 9.4		RPDLimit = 30	
4-Chlorotoluene	44.0000	44.5000	50.0000		88	%	61 - 117	
					RPD = 1.1		RPDLimit = 30	
4-Isopropyltoluene	43.6000	45.4000	50.0000		87	%	62 - 120	
					RPD = 4.0		RPDLimit = 30	
4-Methyl-2-pentanone	98.7000	97.4000	100.0000		99	%	30 - 177	
					RPD = 1.3		RPDLimit = 30	
Acetone	95.5000	89.7000	100.0000		96	%	35 - 139	
					RPD = 6.3		RPDLimit = 30	
Allyl chloride	46.2000	46.6000	50.0000		92	%	45 - 140	
					RPD = 0.9		RPDLimit = 30	
Benzene	39.8000	41.6000	50.0000		80	%	70 - 121	
					RPD = 4.4		RPDLimit = 30	
Bromobenzene	43.0000	43.2000	50.0000		86	%	57 - 134	
					RPD = 0.5		RPDLimit = 30	
Bromochloromethane	48.4000	48.4000	50.0000		97	%	61 - 146	
					RPD = 0.0		RPDLimit = 30	
Bromodichloromethane	42.6000	44.9000	50.0000		85	%	60 - 143	
					RPD = 5.3		RPDLimit = 30	
Bromoform	40.2000	41.0000	50.0000		80	%	40 - 136	
					RPD = 2.0		RPDLimit = 30	
Bromomethane	51.5000	50.8000	50.0000		103	%	48 - 146	
					RPD = 1.4		RPDLimit = 30	
Carbon disulfide	47.0000	47.4000	50.0000		94	%	10 - 187	
					RPD = 0.8		RPDLimit = 30	
Carbon tetrachloride	41.3000	44.4000	50.0000		83	%	30 - 160	
					RPD = 7.2		RPDLimit = 30	
Chlorobenzene	39.0000	38.8000	50.0000		78	%	62 - 132	
					RPD = 0.5		RPDLimit = 30	
Chloroethane	50.2000	50.9000	50.0000		100	%	59 - 144	
					RPD = 1.4		RPDLimit = 30	
Chloroform	47.8000	50.0000	50.0000		96	%	62 - 152	
					RPD = 4.5		RPDLimit = 30	
Chloromethane	47.6000	43.4000	50.0000		95	%	49 - 149	
					RPD = 9.2		RPDLimit = 30	
cis-1,2-Dichloroethene	45.7000	46.5000	50.0000		91	%	54 - 146	
					RPD = 1.7		RPDLimit = 30	
cis-1,3-Dichloropropene	40.5000	41.1000	50.0000		81	%	60 - 134	
					RPD = 1.5		RPDLimit = 30	
Dibromochloromethane	42.0000	43.4000	50.0000		84	%	48 - 141	
					RPD = 3.3		RPDLimit = 30	
Dibromomethane	41.1000	42.5000	50.0000		82	%	58 - 144	
					RPD = 3.3		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909007 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090909A **RunID:** VOC1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909007-05AMSD	1	9/9/2009 9:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Dichlorodifluoromethane	52.6000	53.8000	50.0000		105	%	41 - 154	
					RPD = 2.3		RPDLimit = 30	
Ethylbenzene	39.2000	41.7000	50.0000		78	%	66 - 128	
					RPD = 6.2		RPDLimit = 30	
Hexachlorobutadiene	43.9000	41.1000	50.0000		88	%	56 - 150	
					RPD = 6.6		RPDLimit = 30	
Iodomethane	45.8000	45.7000	50.0000		92	%	27 - 143	
					RPD = 0.2		RPDLimit = 30	
Isopropylbenzene	44.9000	46.2000	50.0000		90	%	46 - 144	
					RPD = 2.9		RPDLimit = 30	
m,p-Xylene	77.5000	79.2000	100.0000		78	%	47 - 146	
					RPD = 2.2		RPDLimit = 30	
Methyl tert-butyl ether	50.4000	50.6000	50.0000		101	%	61 - 140	
					RPD = 0.4		RPDLimit = 30	
Methylene chloride	51.8000	53.8000	50.0000		104	%	34 - 183	
					RPD = 3.8		RPDLimit = 30	
n-Butylbenzene	45.1000	44.0000	50.0000		90	%	59 - 134	
					RPD = 2.5		RPDLimit = 30	
n-Propylbenzene	44.6000	45.9000	50.0000		89	%	57 - 120	
					RPD = 2.9		RPDLimit = 30	
Naphthalene	44.3000	39.0000	50.0000		89	%	18 - 144	
					RPD = 12.7		RPDLimit = 30	
o-Xylene	40.8000	42.1000	50.0000		82	%	72 - 130	
					RPD = 3.1		RPDLimit = 30	
sec-Butylbenzene	46.1000	45.4000	50.0000		92	%	46 - 146	
					RPD = 1.5		RPDLimit = 30	
Styrene	35.7000	45.0000	50.0000		71	%	62 - 134	
					RPD = 23.0		RPDLimit = 30	
tert-Butylbenzene	47.9000	38.6000	50.0000		96	%	64 - 123	
					RPD = 21.5		RPDLimit = 30	
Tetrachloroethene	38.2000	39.6000	50.0000		76	%	47 - 147	
					RPD = 3.6		RPDLimit = 30	
Toluene	39.6000	41.3000	50.0000		79	%	70 - 125	
					RPD = 4.2		RPDLimit = 30	
trans-1,2-Dichloroethene	44.4000	45.2000	50.0000		89	%	54 - 142	
					RPD = 1.8		RPDLimit = 30	
trans-1,3-Dichloropropene	42.1000	44.0000	50.0000		84	%	54 - 134	
					RPD = 4.4		RPDLimit = 30	
Trichloroethene	38.6000	40.6000	50.0000		77	%	74 - 123	
					RPD = 5.1		RPDLimit = 30	
Trichlorofluoromethane	49.4000	52.6000	50.0000		99	%	46 - 167	
					RPD = 6.3		RPDLimit = 30	
Vinyl chloride	49.7000	46.5000	50.0000		99	%	54 - 161	
					RPD = 6.7		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

SURROGATE RECOVERIES REPORT

WorkOrder: 0909007 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAp19-LFCA ATTN: Greg Osuna

Method Volatile Organics by GC/MS *Method Code* SW8260B

BatchID VOC1_090909A *Test Matrix* Soil

SampType	*SampID*	*AnalDate*	*12Dd4*	*Td8*	*DBFM*	*BFB*
MBLK	09BLK09A	9/9/2009	85.80	92.20	93.60	96.80
LFB	09LCS09A	9/9/2009	80.00	92.40	102.00	99.00
SAMP	0909002-01A	9/9/2009	73.62	92.96	100.15	98.10
SAMP	0909002-02A	9/9/2009	77.08	91.91	99.76	96.62
SAMP	0909002-03A	9/9/2009	78.12	90.90	88.20	100.80
SAMP	0909007-05A	9/9/2009	85.48	93.22	110.08	103.37
SAMP	0909007-07A	9/9/2009	79.84	89.82	106.34	100.45
SAMP	0909007-08A	9/9/2009	85.88	92.57	109.97	102.90
SAMP	0909007-09A	9/9/2009	89.16	92.16	111.09	103.67
SAMP	0909007-11A	9/9/2009	95.99	92.28	116.70	102.22
SAMP	0909007-12A	9/10/2009	91.73	89.00	113.57	103.74
SAMP	0909007-13A	9/10/2009	94.59	91.05	115.81	105.05
MS_F	0909007-05A	9/9/2009	94.40	94.80	110.60	94.00
MSDF	0909007-05A	9/9/2009	91.60	93.80	110.40	95.60

Test	***Test Description***	***Limits***
12Dd4	1,2-Dichloroethane-d4	60-133
Td8	Toluene-d8	67-128
4BFB	4-Bromofluorobenzene	70-125
DBFM	Dibromofluoromethane	70-122

For Surrogates: 0 = Dil.Out

Alamo Analytical Laboratories, LTD

SURROGATE RECOVERIES REPORT

WorkOrder: 0909007

Report Date: 9/29/2009

Company: Alamo 1

PROJECT: LHAAp19-LFCA

ATTN: Greg Osuna

Method Code Semi-volatile Organics by GC/MS

Method Code SW8270C

BatchID SVOC1_090921B

Test Matrix Soil

SampType	*SampID*	*AnalDate*	*246TBP*	*2FBP*	*2FP*	*NBD5*	*PD5*	*TD14*
MBLK	09BLK09A	9/21/2009	105.45	95.81	74.24	78.44	76.36	92.22
LFB	09LCS09A	9/21/2009	106.67	88.02	69.70	84.43	90.61	92.22
SAMP	0909007-05A	9/21/2009	84.85	61.68	68.48	62.28	95.15	66.47
SAMP	0909007-07A	9/21/2009	80.00	39.10	66.97	45.03	93.94	79.04
SAMP	0909007-08A	9/21/2009	105.76	69.46	82.73	58.26	106.67	77.84
SAMP	0909007-09A	9/21/2009	132.42	71.86	33.64	47.13	64.24	114.97
SAMP	0909007-10A	9/21/2009	63.33	51.68	52.12	49.22	74.24	89.22
SAMP	0909007-12A	9/21/2009	80.91	71.26	67.27	58.20	91.21	92.22
SAMP	0909007-13A	9/21/2009	82.73	50.36	59.39	49.94	84.24	96.41
MS_F	0909007-10A	9/21/2009	95.15	89.22	62.12	77.25	83.33	79.64
MSDF	0909007-10A	9/21/2009	103.33	82.04	71.82	76.05	89.70	81.44

Test	***Test Description***	***Limits***
246TBP	2,4,6-Tribromophenol	11-143
2FBP	2-Fluorobiphenyl	49-125
2FP	2-Fluorophenol	28-110
NBD5	Nitrobenzene-d5	36-122
PD5	Phenol-d5	10-110
TD14	Terphenyl-d14	10-176

For Surrogates: 0 = Dil.Out

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 9/29/2009

Job Number.: 0909007 Project Name...: LHAAp19-LFCA

Customer.....: Alamo 1 Attn.....: Greg Osuna

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
CN_R_TS	BLK	9/8/2009	9/2/2009

Method:	Description:	BatchID:	RunID:
SW9010A	CYANIDE, TOTAL	CN_R_TS-9/8/2009	CN_090908A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909007-05	B1 0-1	9/8/2009	1
0909007-07	B3 2-3	9/8/2009	1
0909007-08	B3 12-13	9/8/2009	1
0909007-09	B4 2-2.5	9/8/2009	1
0909007-10	B4 14-14.5	9/8/2009	1
0909007-12	B2 1-1.5	9/8/2009	1
0909007-13	B2 21-22.5	9/8/2009	1

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
HG_R_S	09BLK08A	9/8/2009 2:00:00 PM	9/2/2009

Method:	Description:	BatchID:	RunID:
SW7471A	MERCURY, TOTAL	HG_R_S-09/09/2009	HG_090908E

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909007-05	B1 0-1	9/8/2009 7:15:00 PM	1
0909007-07	B3 2-3	9/8/2009 7:15:00 PM	1
0909007-08	B3 12-13	9/8/2009 7:15:00 PM	1
0909007-09	B4 2-2.5	9/8/2009 7:15:00 PM	1
0909007-10	B4 14-14.5	9/8/2009 7:15:00 PM	1
0909007-12	B2 1-1.5	9/8/2009 7:15:00 PM	1
0909007-13	B2 21-22.5	9/8/2009 7:15:00 PM	1

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 9/29/2009

Job Number.: 0909007 Project Name...: LHAAp19-LFCA

Customer.....: Alamo 1 Attn.....: Greg Osuna

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
TAL_S	BLK	9/5/2009	9/2/2009

Method:	Description:	BatchID:	RunID:
SW6010B	TARGET ANALYTE LIST	TAL_S-9/4/2009	ICP_090908B

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909007-05	B1 0-1	9/8/2009 5:00:00 PM	1
0909007-07	B3 2-3	9/8/2009 5:00:00 PM	1
0909007-08	B3 12-13	9/8/2009 5:00:00 PM	1
0909007-09	B4 2-2.5	9/8/2009 5:00:00 PM	1
0909007-10	B4 14-14.5	9/8/2009 5:00:00 PM	1
0909007-12	B2 1-1.5	9/8/2009 5:00:00 PM	1
0909007-13	B2 21-22.5	9/8/2009 5:00:00 PM	1

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
8270C_S	09BLK09A	9/9/2009 9:30:00 AM	9/2/2009

Method:	Description:	BatchID:	RunID:
SW8270C	Semi-volatile Organics by	SVOC1_090921B	SVOC1_090921B

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909007-05	B1 0-1	9/21/2009 6:34:00 PM	1
0909007-07	B3 2-3	9/21/2009 1:17:00 PM	1
0909007-08	B3 12-13	9/21/2009 2:10:00 PM	1
0909007-09	B4 2-2.5	9/21/2009 2:53:00 PM	1
0909007-10	B4 14-14.5	9/21/2009 3:20:00 PM	1
0909007-12	B2 1-1.5	9/21/2009 5:18:00 PM	1
0909007-13	B2 21-22.5	9/21/2009 5:56:00 PM	1

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 9/29/2009

Job Number.: 0909007 Project Name...: LHAAp19-LFCA

Customer.....: Alamo 1 Attn.....: Greg Osuna

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
8270C_SS	09BLK09A	9/9/2009 9:30:00 AM	9/2/2009

Method:	Description:	BatchID:	RunID:
SW8270C	Semivolatiles SIM	SVOC1_090922A	SVOC1_090922A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909007-05	B1 0-1	9/23/2009 5:44:00 AM	1
0909007-07	B3 2-3	9/22/2009 9:00:00 PM	1
0909007-08	B3 12-13	9/22/2009 9:37:00 PM	1
0909007-09	B4 2-2.5	9/22/2009 10:14:00 PM	1
0909007-10	B4 14-14.5	9/22/2009 10:52:00 PM	1
0909007-12	B2 1-1.5	9/22/2009 11:29:00 PM	1
0909007-13	B2 21-22.5	9/23/2009 12:06:00 AM	1

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
CR6_S	BLK	9/9/2009	9/2/2009

Method:	Description:	BatchID:	RunID:
SW7196A	HEXAVALENT CHROMIU	CR6_S-9/9/2009	UV1_090909B

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909007-05	B1 0-1	9/9/2009	20
0909007-07	B3 2-3	9/9/2009	20
0909007-08	B3 12-13	9/9/2009	20
0909007-09	B4 2-2.5	9/9/2009	20
0909007-10	B4 14-14.5	9/9/2009	20
0909007-12	B2 1-1.5	9/9/2009	20
0909007-13	B2 21-22.5	9/9/2009	20

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 9/29/2009

Job Number.: 0909007 Project Name...: LHAAp19-LFCA

Customer.....: Alamo 1 Attn.....: Greg Osuna

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
8260B_S	09BLK09A	9/9/2009 3:55:00 PM	9/2/2009

Method:	Description:	BatchID:	RunID:
SW8260B	Volatile Organics by GC/	VOC1_090909A	VOC1_090909A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909007-05	B1 0-1	9/9/2009 7:33:00 PM	1
0909007-07	B3 2-3	9/9/2009 9:44:00 PM	1
0909007-08	B3 12-13	9/9/2009 10:28:00 PM	1
0909007-09	B4 2-2.5	9/9/2009 11:11:00 PM	1
0909007-11	B4 14.5-15	9/9/2009 11:55:00 PM	1
0909007-12	B2 1-1.5	9/10/2009 12:39:00 AM	1
0909007-13	B2 21-22.5	9/10/2009 1:22:00 AM	1

Alamo Analytical Laboratories, LTD
(DBA Chemron)

QUALITY ASSURANCE METHODS REFERENCES AND NOTES

Report Date: Sep 29, 2009

(1) EPA SW-846, Test Method for Evaluating Solid Waste, Third Edition, September 1986, and Updates I, II, IIA, IIB, and III

(2) ASTM, Section 11 Water and Environmental Technology, Volume 11.01 Water (1), 1991

(3) TCEQ Method 1005, Revision 3, June 2001

QC Sample Identification:

DF:	Dilution Factor
MBLK:	Method Blank
MS/MS_F:	Method (Matrix) Spike
MSD/MSDF:	Method (Matrix) Spike Duplicate
LCS:	Laboratory Control Standard
LCSD:	Laboratory Control Standard Duplicate
LFB:	Laboratory Fortified Blank
LFBD:	Laboratory Fortified Blank Duplicate
DUP:	Sample Duplicate
RPD:	Relative Percent Difference

General Qualifiers:
U - Analyte was analyzed but not detected
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

10526 Gulfdale San Antonio, TX 78216

Alamo Analytical Laboratories, LTD
(DBA Chemron)

10526 Gulfdale, San Antonio , Texas 78216-3601 (210) 340-8121
Alamo_labs@sbcglobal.net; www.alamoanalytical.com

Sample Log-In Checklist

DATE: 9 / 2 / 2009 **TIME:** 0805 **INITIALS:** D

CLIENT: Alamo 1 **PROJECT:** LHAAP19 LFCA **W.O#** 909007

1. Is a Chain of Custody present? Yes No
2. Is a Chain of Custody properly completed? Yes No
3. Are custody seals present? Yes No
   If yes, are they intact? Yes No
   Are they on: Sample ✓ ~~or on~~ And Shipping Container ✓
4. Are all samples tagged or labeled? Yes No
   If yes, do the labels match the Chain of Custody? Yes No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   If not, describe below. Yes No N/A
6. Are samples preserved properly? *If not*, describe below. Yes No
7. Are all samples within holding times on arrival? Yes No
   If not, describe below.

Other

8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: 3 °C
11. Delivery agent: Client ___ UPS ___ Fed-Ex ___ Lone Star ✓ Alamo P/U ___ Other _____
12. Sample disposal: Return to client _____ Alamo Analytical Disposal ✓

Comments: (Reference checklist item number from above, or for comments on resolution below):

TRRP
See COC for QA/QC instructions
(Solid)

Record of contacting client for resolution of sample discrepancies (first and retry contact)
Contacted How?

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

Data Usability Summary
LHAAP-19
Lab Project No. 0909018

Introduction

Regulatory Compliance & Guidance (RCG) reviewed one data package (Job No. 0909018) from Alamo Analytical Laboratories, LTD. The data package was reviewed following guidance (Consistency Document[1] and TRRP-13[2]) prepared by the Texas Commission on Environmental Quality (TCEQ) and the equivalent sections of engineering manual (EM) 200-1-10[3] prepared by the US Army Corps of Engineers (USACE).

Intended Use of Data

The data is to be used to support a risk-based closure of the LHAAP-19 under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) consistent with requirements of Title 30 Texas Administrative Code (TAC) §335.8 (relating to closure and remediation).

Data Package Content

In order to ensure data quality, a TRRP-13 reporting package was provided by the laboratory. The data package included the following:

- completed chain of custody form,
- cross-reference guide for field to laboratory identification numbers.
- signature page
- reportable data,
- quality control results for duplicates, method blanks, laboratory control samples and laboratory control sample duplicates, matrix spike and matrix spike duplicates, laboratory fortified blanks, and surrogate recoveries.
- laboratory review checklist and associated exception reports (when needed),
- laboratory chronicles, and
- quality assurance methods, references, and notes.

Chain of Custody Form

Nine (9) soil samples were collected on September 2, 2009 for the Longhorn Army Ammunition Plant (LHAAP) Site 19 in Karnack, TX (Site). According to the chain of custody form, the soil samples were to be analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (S-VOCs), and target analyte list (TAL) metals. Two project samples were designated as matrix spike / matrix spike duplicates (MSD) for S-VOCs, metals, and VOCs. One trip blank was to be analyzed for VOCs if VOCs were detected in the environmental samples.

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[1] TCEQ. 1998. Interoffice Memorandum regarding Implementation of the Existing Risk Reduction Rule. July 23.
[2] TCEQ. 2002. Review and Reporting COC Concentration Data. RG366/TRRP-13. December.
[3] USACE. 2005. Guidance for Evaluating Performance-Based Chemical Data. EM 200-1-10. June 30. http://140.194.76.129/publications/eng-manuals/em200-1-10/entire.pdf

Analytical Methods, Preservation, and Holding Times

The laboratory utilized analytical methods described in the *Test Methods for Evaluating Solid Waste, Third Edition, September 1986 and Updates I, II, IIA, IIB, and III* (SW-846). The analytical methods utilized were:

- SW6010B (aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, selenium, silver, sodium, strontium, thallium, vanadium, and zinc);
- SW7196A (hexavalent chromium);
- SW7471A (mercury);
- SW9010A (cyanide);
- SW8260B (VOCs); and
- SW8270C (S-VOCs).

The holding times and preservation requirements found in SW846 and EM 200-1-3[4] are summarized in the following table. The preparation and analysis dates are taken from the laboratory chronicles.

Table 1 Preservation and Holding Time Requirements

Test Method	Holding Times	Preservative	Sample Date	Prep Date	Analysis Date
SW6010B	6 months	4°C	9/2/2009	9/5/2009	9/8/2009
SW7196A	24 hours	4°C	9/2/2009	9/9/2009	9/9-10/2009
SW7471A	28 days	4°C	9/2/2009	9/8/2009	9/8/2209
SW9010A	14 days	4°C	9/2/2009	9/10/2009	9/10/2009
SW8260B	14 days	4°C	9/2/2009	9/15/2009	9/15-16/2009
SW8270C	14/40 days	4°C	9/2/2009	9/9/2009	9/21-23/2009

The samples were properly sealed and chilled (<4°C). With the exception of hexavalent chromium, the samples were extracted and analyzed within the required holding times. Analytical results for total chromium should be compared to the action level for hexavalent chromium until the absence of hexavalent chromium is confirmed.

Quality Control

Blanks

One trip blank (Field ID TB and Lab ID 090918-10) was associated with the samples collected during this sampling event. The sample was to be analyzed by the laboratory if VOCs were detected in any of the associated samples. VOCs were not detected in the associated samples. Therefore, the trip blank was not analyzed.

No laboratory contaminants were detected in the method blanks.

[4] USACE. 2001. Engineering and Design – Requirements for the Preparation of Sampling and Analysis Plans. February 1.

Laboratory Control Samples

According to the Environmental Protection Agency (EPA)[5], "The primary purpose of the laboratory control sample (LCS) is to demonstrate that the laboratory can perform the overall analytical approach in a matrix free of interferences (e.g, in reagent water, clean sand, or another suitable reference matrix)." The percent recovery indicates the accuracy of the lab and whether the data is biased (high or low). The relative percent difference (RPD) indicates the laboratory's ability to reproduce the data (precision).

The lowest and highest percent recoveries are listed in Table 2. The project control limits were based on USACE (2005). Since the laboratory control limits vary for each individual parameter, the widest range is listed for each test method.

Table 2 LCS Percent Recoveries Compared to Project and Laboratory Control Limits

Method Description	Percent Recovery	Project Control Limits (% Recovery)	Laboratory Control Limits (% Recovery)
Inorganics	90-111	80-120	80-120
S-VOCs	36-130	60-140	20-140
VOCs	85-110	80-120	21-201

The control limits were met except for the S-VOC parameters listed in Table 3.

Table 3 Percent Recoveries Outside Control Limits for LCS

Parameter	Percent Recovery LCS	Bias Code	Percent Recovery MS
2,4-dimethylphenol	41	L	34
3-nitroaniline	39	L	43
4-chloroaniline	38	L	71
Aniline	56	L	62
Bis(2-chloroethoxy)methane	58	L	59
Isophorone	45	L	39
N-nitrosodiphenylamine	36	L	42
Nitrobenzene	51	L	61

The reported results for the parameters listed in Table 3 may be biased low. The reported results were adjusted by the percent recovery and the adjusted results were compared directly to the action levels. The adjusted results do not change the original conclusions based on the reported results. No further action is warranted.

Matrix spike and matrix spike duplicate (MS/MSD)

[5] EPA. 2009. Batch Sizes and QC Questions. Downloaded from web page on December 4. http://www.epa.gov/osw/hazard/testmethods/faq/faqs_qc.htm#Spike

The MS/MSD results measure a method's performance relative to the specific sample matrix of interest (EPA, 2009). If the percent recoveries and relative percent differences (RPDs) for the MS/MSD are similar to those of the LCS/LCSDs, then matrix interference is unlikely.

Project sample B6 0.5-1 was used as the MS/MSD for metals and S-VOCs. Project sample B8 8-8.5 was used as the MS/MSD for VOCs. The ranges for percent recovery and RPD for the project samples are listed in Table 4. The project limits were based on USACE, 2005.

Table 4 Percent Recovery Ranges with Maximum RPD for MS/MSDs

Method Description	%Recovery	Maximum	Project Control Limits (% Recovery)	Project Control Limits (RPD)	Laboratory Control Limits (% Recovery)
Inorganics	91-46800	29.6	80-120	20	80-120
S-VOCs	34-140	46	60-140	40	20-140
VOCs	81-111	16.6	80-120	20	21-201

Table 5 lists the parameter and associated RPD for each percent recovery that was outside the project limits AND differed from the percent recoveries for the LCS.

Table 5 Percent Recoveries with Associated RPDs for MS/MSD

Parameter	%Recovery	RPD	Bias Code
Aluminum	46800	29.2	H
Calcium	1176	2	H
Iron	17000	29.6	H
Magnesium	1330	0.2	H
Potassium	1304	8.8	H
Sodium	1144	0.7	H
Thallium	202	2.9	H
2-nitrophenol	55	0.3	L
4-nitroaniline	55	25.1	L

Table 5 Percent Recoveries with Associated RPDs for MS/MSD			
Parameter	%Recovery	RPD	Bias Code
Benzidine	38	12.1	L
Benzoic acid	53	6.9	L
Butyl benzyl phthalate	43	37.7	L
Isophorone	39	17.4	L

The reported results for these parameters may be biased high (H) or low (L) due to matrix interference. The reported results for these parameters were adjusted by the percent recovery and compared to the action level. The adjusted results do not change the original conclusion based on the reported results. No further action is warranted.

Surrogate Recoveries

Surrogates are similar in chemical composition to the organic analytes of interest. The surrogates are spiked into environmental and batch QC samples prior to sample preparation and analysis. Surrogate recoveries are used to evaluate potential bias that could have been introduced by the preparatory procedures and/or the analysis (TCEQ, 2002) and to evaluate matrix interference on a sample-specific basis (USACE, 2001).

The surrogate recoveries for blanks, LCSs, and environmental samples were compared to the surrogate recovery limits listed in TCEQ, 2002.

Table 6 Surrogate Recoveries for VOCs				
Sample Type	12Dd4	Td8	DBMF	BFB
Blanks	Low (78.80)	Meet	Meet	Meet
LCS	Low (71.60)	Meet	Meet	Meet
Environmental Samples	Low (70.13)	Meet	H (119.06)	Meet

12Dd4	1,2-dichloroethane-d4
Td8	Toluene-d8
BFB	Bromofluorobenzene
DBFM	Dibromofluoromethane

Table 7 Surrogate Recoveries for SVOCs						
Sample Type	246TBP	2FMP	2FP	NBD5	PD5	TD14

Table 7 Surrogate Recoveries for SVOCs						
Sample Type	246TBP	2FMP	2FP	NBD5	PD5	TD14
Blanks	Meet	Meet	Meet	Meet	Meet	Meet
LCS	Meet	Meet	Meet	Meet	Meet	Meet
Environmental Samples	H (126.36)	Meet	Meet	Meet	H (115.45)	H (136.53)

246TBP 2,4,6-Tribomophenol
2FBP 2-Fluorobiphenyl
2FP 2-Fluorophenol
NBD5 Nitrobenzene-d5
PD5 Phenol-d5
TD14 Terphenyl-d14

Based on the qualifying criteria listed in Table D-2 of TCEQ, 2002, the detected results for S-VOCs should be qualified as biased high (H) based on surrogate recoveries. N-nitrosodi-n-propylamine was detected in samples 090918-01A and 090918-02A. These samples were collected from boring B-5 (1-1.5-foot interval and 14.5-15-foot interval). The detected concentrations were above the action level. The analytical results for these samples should be evaluated collectively with all site data before initiating corrective action based solely on this data.

Analytical Results

Detected

Concentrations detected below the method quantitation limit (MQL) but above the SQL were estimated values and flagged with a 'J'. The analytes detected in the environmental samples are listed in the data tables.

Non-detected: Non-detected results were reported as less than the value of the sample quantitation limit (SQL). The SQLs for the some analytes exceeded the regulatory limits. The laboratory should confirm that the most sensitive method available was used for these analytes. The MQLs may be used as the regulatory limit if the most sensitive method available was used and the SQLs are less than the MQLs.

ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121

12/30/2009

Greg Osuna
Alamo 1
10843 Gulfdale
San Antonio , TX - 78216
TEL: (210) 218-3271
FAX: (210) 820-3636 Email:

RE: LHAAP19LFCA

Dear Greg Osuna: Order No.: 0909018

Enclosed please find the revised report updating the Thallium and Bis(2-chloroethyl)ether MDLs and PQLs with low level analysis. Lowest possible reporting limits and MDLs was used to achieve project requirements.

Thank you,

Reddy Gosala

Laboratory Director

Report of Laboratory Analysis

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed clien
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NELAP Certificate# T104704367-09-TX

ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121

9/29/2009

Phyllis Primrose
Alamo 1
12901 N. I35 / Suite 1320-203
Austin , Texas - 78753
TEL: (512) 694-9326
FAX: Email: phyllis@rcgtex.com

RE: LHAAP19LFCA

Dear Phyllis Primrose: Order No.: 0909018

The attached report/s contain Chain of Custody, Analytical Report/s and QA/QC report. If you have any questions regarding these tests results call (210) 340-8121.

Thank you,

Reddy Gosala

Laboratory Director

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

NELAP Certificate# T104704367-08-TX

Alamo Analytical Laboratories, LTD

ANALYTICAL REPORT

JOB NUMBER 0909018

Prepared for

Alamo 1

Attn. Phyllis Primrose

Date: September 29,2009

Signature

9/29/09
Date

Name: Reddy Gosala
Title: Lab Director
E-Mail: Alamo_labs@sbcglobal.net

10526 Gulfdale San Antonio, TX 78216

Alamo Analytical Laboratories, LTD

TRRP Data Package Signature Page

Job Number: 0909018

Project Name/Number: LHAAP19LFCA

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

[X] R1 Field Chain-of-Custody Form

[X] R2 Sample Identification Cross-reference;

[X] R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
- a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
- b) dilution factors,
- c) preparation methods,
- d) cleanup methods, and
- e) if required for the project, tentatively identified compounds (TICs).

[X] R4 Surrogate Recovery Data including:
- a) Calculated recovery (%R), and
- b) The Laboratory's surrogate recovery limits.

[X] R5 Test Reports/Summary Forms for Blank Samples;

[X] R6 Test Reports/Summary Forms for Laboratory Control Smaples (LCSs) including:
- a) LCS Spiking amounts,
- b) Calculated %R for each analyte, and
- c) The Laboratory's LCS QC Limits

[X] R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
- a) Samples associated with the MS/MSD clearly identified,
- b) MS/MSD spiking amounts,
- c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
- d) Calculated %Rs and relative percent differences (RPDs), and
- e) The Laboratory's MS/MSD QC Limits

[X] R8 Laboratory Analytical Duplicates (if applicable) Recovery and Precision, including:
- a) The amount of analyte measured in the duplicate,
- b) The calculated RPD, and
- c) the Laboratory's QC Limits for analytical duplicates.

[X] R9 Method Quamtation Limit (MQL) for each analyte for each method and matrix;

[X] R10 Other problems and anomalies

Release Statement: "I am responsible for the release of the data package. This laboratory data package has been reviewed and is complete and technically complaint with the requirements of the methods used, except where noted by the laboratory in the attched exception reports."

Reddy Gosala	Gyrddas	Laboratory Director	9/29/09
Name (Printed)	Signature	Official Title (Printed)	Date

Alamo Analytical Laboratories, LTD

SAMPLE INFORMATION

Date: 9/29/2009

Job Number.: 0909018

Project Name...: LHAAP19LFCA

Customer.....: Alamo 1

Attn.....: Phyllis Primrose

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
0909018-01A	B5-1	Soil	9/2/2009	8:00	9/4/2009	8:05
0909018-02A	B5-2	Soil	9/2/2009	8:15	9/4/2009	8:05
0909018-03A	B6-1	Soil	9/2/2009	13:48	9/4/2009	8:05
0909018-04A	B6-2	Soil	9/2/2009	14:06	9/4/2009	8:05
0909018-05A	B8-1	Soil	9/2/2009	14:25	9/4/2009	8:05
0909018-06A	B8-2	Soil	9/2/2009	14:43	9/4/2009	8:05
0909018-07A	B10-1	Soil	9/2/2009	15:13	9/4/2009	8:05
0909018-08A	B10-2	Soil	9/2/2009	15:44	9/4/2009	8:05
0909018-09A	B8-3	Soil			9/4/2009	8:05

CHAIN OF CUSTODY RECORD

COC #: 07427

ALAMO ANALYTICAL LABORATORIES LTD.
10526 Gulfdale
San Antonio, Texas 78216
(210) 340-8121 • (800) 572-6955
Fax: (210) 340-8123
www.alamoanalytical.com
admin@alamoanalytical.com

NELAP Certificate # T104704367-08-TX

MUST BE COMPLETED BY CLIENT

Alamo Client: Alamo Environmental
Client's P.O. #: AR 09195
Project Manager: Greg Osuna
Phone #: 210, 404, 1220
Address: 10843 Gulfdale SA TX
Fax #:
Project Number:
Project Name: LHAAP 19 LFCA
Project Location: LHAAP 19 Karnack, TX
Sampler Signature:

Turnaround time: Standard (7) ☒ (in working days)
RUSH: 1☐ 2☐ 3-5☐ Days (additional charges)
TRRP 13 Report: Yes ☒ No ☐ (additional charges)
Analysis for Permit Compliance: Yes ☐ No ☒
DMR Form Required: Yes ☐ No ☐

LAB ID# (Do not use)	Sampling Date	Sampling Time	Composite	Grab	Matrix	FIELD ID #	FIELD DESCRIPTION	No. of Containers	VOCs	SVOCs	TAL Metals				REMARKS (Preservation, Size/Amount, Etc.)
909018-01	9/2/09	0800		X	SOIL	B5-1	1-1.5 ft	2	X	X	X				
909018-02		0815				B5-2	14.5-15	2	X	X	X				
909018-03		1348				B6-1	0.5-1	2	X	X	X				MS/MSD SVOCs metals
909018-04		1406				B6-2	14.5-15	2	X	X	X				
909018-05		1425				B8-1	1-1.5	2	X	X	X				
909018-06		1443				B8-2	14-15	2	X	X	X				~~MS/MSD VOCs~~
909018-07		1513				B10-1	2-3	2	X	X	X				
909018-08		1544				B10-2	13-14	2	X	X	X				
909018-09		1439				B8-3	8-8.5	1	X						MS/MSD
909018-10						TB	TRIP Blank	1	X	only if VOCs detected in samp					

Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Phyllis Primrose	9/3/09	1140	Gilbert Olivares
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Transport to Lab			
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Gilbert Olivares	9/4/09	8:05	Received for Laboratory by: (Signature)

Headspace	N/A		If Yes, Amt. Solid
Properly Sealed	Y		If No, Explain
Chilled ≤4° C	Y		If No, Temp. 1°C

Comments: refer to Work Plan for methods and LORPs.

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B5-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-01A **Time Received:** 8:05

Sample Time: 8:00 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		20			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW6010B													
Aluminum	7429-90-5	38100.0000			0.4630	2.5000	0.5773	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Antimony	7440-36-0	< 0.7107			0.5700	2.5000	0.7107	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Arsenic	7440-38-2	< 0.8591			0.6890	1.5000	0.8591	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Barium	7440-39-3	141.0000			0.2100	1.0000	0.2618	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Beryllium	7440-41-7	0.7610			0.0440	0.5000	0.0549	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cadmium	7440-43-9	< 0.0873			0.0700	0.5000	0.0873	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Calcium	7440-70-2	1350.0000			1.5000	5.0000	1.8703	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Chromium	7440-47-3	22.2000			0.2210	1.0000	0.2756	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cobalt	7440-48-4	7.7900			0.3700	1.0000	0.4613	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Copper	7440-50-8	4.8900			0.4470	1.5000	0.5574	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Iron	7439-89-6	26000.0000			0.9820	5.0000	1.2244	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Lead	7439-92-1	13.1000			0.4500	1.0000	0.5611	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Magnesium	7439-95-4	4250.0000			0.1860	1.0000	0.2319	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Manganese	7439-96-5	23.3000			5.3500	15.0000	6.6708	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Nickel	7440-02-0	12.2000			0.4790	1.0000	0.5973	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Potassium	7440-09-7	2530.0000			4.7100	10.0000	5.8728	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Selenium	7782-49-2	< 1.2344			0.9900	2.0000	1.2344	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Silver	7440-22-4	< 0.5985			0.4800	1.0000	0.5985	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Sodium	7440-23-5	292.0000			0.7500	2.0000	0.9352	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Strontium	7440-24-6	< 0.5362			0.4300	1.0000	0.5362	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Thallium	7440-28-0	< 1.7640			1.4700	5.0000	1.7640	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Vanadium	7440-62-2	34.7000			0.7500	2.0000	0.9352	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Zinc	7440-66-6	33.8000			0.4300	1.0000	0.5362	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2618			0.2100	0.5000	0.2618	mg/kg	9/9/2009	CR6_S-9/9/2009	20	SS	9/9/2009
SW7471A													
Mercury	7439-97-6	< 0.0231			0.0185	0.0400	0.0231	mg/Kg	9/8/2009 7:15:00 PM	HG_R_S-09/8A/2009	1	DW	9/8/2009 2:00:00 PM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 1.0698			0.8580	5.0000	1.0698	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,1,1-Trichloroethane	71-55-6	< 1.4963			1.2000	5.0000	1.4963	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.7182			0.5760	5.0000	0.7182	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.1746			0.9420	5.0000	1.1746	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B5-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-01A **Time Received:** 8:05

Sample Time: 8:00 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1-Dichloroethane	74-34-3	< 1.0910			0.8750	5.0000	1.0910	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,1-Dichloroethene	75-35-4	< 1.2594			1.0100	5.0000	1.2594	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,1-Dichloropropene	563-58-6	< 0.8217			0.6590	5.0000	0.8217	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 1.0623			0.8520	5.0000	1.0623	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.3466			1.0800	5.0000	1.3466	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 3.1172			2.5000	5.0000	3.1172	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.7918			0.6350	5.0000	0.7918	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.8204			1.4600	5.0000	1.8204	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,2-Dibromoethane	106-93-4	< 0.9252			0.7420	5.0000	0.9252	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7718			0.6190	5.0000	0.7718	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,2-Dichloroethane	107-06-2	< 0.8416			0.6750	5.0000	0.8416	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,2-Dichloropropane	78-87-5	< 1.0773			0.8640	5.0000	1.0773	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 0.9227			0.7400	5.0000	0.9227	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.9763			0.7830	5.0000	0.9763	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,3-Dichloropropane	142-28-9	< 0.7244			0.5810	5.0000	0.7244	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.7905			0.6340	5.0000	0.7905	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
1-Chlorohexane	544-10-5	< 0.5274			0.4230	5.0000	0.5274	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
2,2-Dichloropropane	590-20-7	< 0.9925			0.7960	5.0000	0.9925	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
2-Butanone	78-93-3	< 0.5262			0.4220	10.0000	0.5262	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
2-Chlorotoluene	95-49-8	< 1.3092			1.0500	5.0000	1.3092	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
2-Hexanone	591-78-6	< 0.8180			0.6560	10.0000	0.8180	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
4-Chlorotoluene	106-43-4	< 1.0486			0.8410	5.0000	1.0486	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
4-Isopropyltoluene	99-87-6	< 2.7681			2.2200	5.0000	2.7681	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.7830			1.4300	10.0000	1.7830	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Acetone	67-64-1	< 1.4214			1.1400	10.0000	1.4214	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Allyl chloride	107-05-1	< 3.0050			2.4100	5.0000	3.0050	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Benzene	71-43-2	< 0.7219			0.5790	5.0000	0.7219	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Bromobenzene	108-86-1	< 1.3342			1.0700	5.0000	1.3342	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Bromochloromethane	74-97-5	< 1.2095			0.9700	5.0000	1.2095	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Bromodichloromethane	75-27-4	< 1.1209			0.8990	5.0000	1.1209	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Bromoform	75-25-2	< 0.8192			0.6570	5.0000	0.8192	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Bromomethane	74-83-9	< 2.1945			1.7600	5.0000	2.1945	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Carbon disulfide	75-15-0	< 1.4339			1.1500	5.0000	1.4339	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Carbon tetrachloride	56-23-5	< 0.9090			0.7290	5.0000	0.9090	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B5-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-01A **Time Received:** 8:05

Sample Time: 8:00 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Chlorobenzene	108-90-7	< 1.2070			0.9680	5.0000	1.2070	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Chloroethane	75-00-3	< 2.1446			1.7200	5.0000	2.1446	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Chloroform	67-66-3	< 1.2594			1.0100	5.0000	1.2594	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Chloromethane	74-87-3	< 3.8030			3.0500	5.0000	3.8030	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.1397			0.9140	5.0000	1.1397	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.2594			1.0100	5.0000	1.2594	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Dibromochloromethane	124-48-1	< 0.9838			0.7890	5.0000	0.9838	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Dibromomethane	74-95-3	< 1.6708			1.3400	5.0000	1.6708	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Dichlorodifluoromethane	75-71-8	< 2.0948			1.6800	5.0000	2.0948	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Ethylbenzene	100-41-4	< 0.9963			0.7990	5.0000	0.9963	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Hexachlorobutadiene	87-68-3	< 2.3441			1.8800	5.0000	2.3441	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Iodomethane	74-88-4	< 1.2843			1.0300	5.0000	1.2843	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Isopropylbenzene	98-82-8	< 1.3092			1.0500	5.0000	1.3092	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
m,p-Xylene	179601-23-	< 1.2594			1.0100	10.0000	1.2594	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Methyl tert-butyl ether	1634-04-4	< 1.0062			0.8070	5.0000	1.0062	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Methylene chloride	75-09-2	< 2.4938			2.0000	5.0000	2.4938	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
n-Butylbenzene	104-51-8	< 0.8828			0.7080	5.0000	0.8828	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
n-Propylbenzene	103-65-1	< 1.2020			0.9640	5.0000	1.2020	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Naphthalene	91-20-3	< 1.0586			0.8490	15.0000	1.0586	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
o-Xylene	95-47-6	< 1.0075			0.8080	5.0000	1.0075	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
sec-Butylbenzene	135-98-8	< 1.6584			1.3300	5.0000	1.6584	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Styrene	100-42-5	< 1.0411			0.8350	5.0000	1.0411	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
tert-Butylbenzene	98-06-6	< 1.3092			1.0500	5.0000	1.3092	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Tetrachloroethene	127-18-4	< 0.9214			0.7390	5.0000	0.9214	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Toluene	108-88-3	< 0.7668			0.6150	5.0000	0.7668	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.1135			0.8930	5.0000	1.1135	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.3217			1.0600	10.0000	1.3217	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Trichloroethene	79-01-6	< 0.9115			0.7310	5.0000	0.9115	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Trichlorofluoromethane	75-69-4	< 2.1072			1.6900	5.0000	2.1072	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
Vinyl chloride	75-01-4	< 1.1471			0.9200	2.0000	1.1471	ug/Kg	9/15/2009 7:33:00 P	VOC1_090915B	1	VKG	9/15/2009 7:33:00 PM
SW8270C													
1,2-Diphenylhydrazine	122-66-7	< 11.5087			9.2300	33.3000	11.5087	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1658			0.1330	0.3300	0.1658	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 15.7107			12.6000	33.3000	15.7107	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B5-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-01A **Time Received:** 8:05

Sample Time: 8:00 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
1,2,4-Trichlorobenzene	120-82-1	< 0.0542			0.0435	0.3300	0.0542	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0782			0.0627	0.3300	0.0782	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 13.9651			11.2000	33.3000	13.9651	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0248			0.0199	0.3300	0.0248	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 26.0599			20.9000	66.7000	26.0599	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 22.6933			18.2000	66.7000	22.6933	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0870			0.0698	0.3300	0.0870	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0798			0.0640	0.3300	0.0798	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenylphenylether	101-55-3	< 11.1721			8.9600	33.3000	11.1721	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenylphenylether	7005-72-3	< 6.2968			5.0500	33.3000	6.2968	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.2120			0.1700	0.3300	0.2120	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 48.6284			39.0000	100.000	48.6284	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0241			0.0193	0.3300	0.0241	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 21.9451			17.6000	33.3000	21.9451	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0324			0.0260	0.3300	0.0324	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0519			0.0416	0.3300	0.0519	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 11.5461			9.2600	33.3000	11.5461	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0335			0.0269	0.3300	0.0335	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 15.0873			12.1000	33.3000	15.0873	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 16.4589			13.2000	33.3000	16.4589	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1372			0.1100	0.3300	0.1372	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 11.3217			9.0800	33.3000	11.3217	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0252			0.0202	0.3300	0.0252	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0519			0.0416	0.3300	0.0519	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 9.8379			7.8900	33.3000	9.8379	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 16.2095			13.0000	33.3000	16.2095	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0344			0.0276	0.3300	0.0344	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0416			0.0334	0.3300	0.0416	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 19.7007			15.8000	33.3000	19.7007	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0489			0.0392	0.3300	0.0489	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 12.5935			10.1000	33.3000	12.5935	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1746			0.1400	0.3300	0.1746	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 11.9576			9.5900	33.3000	11.9576	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0546			0.0438	0.3300	0.0546	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B5-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-01A **Time Received:** 8:05

Sample Time: 8:00 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Pentachlorophenol	87-86-5	< 52.3691			42.0000	100.000	52.3691	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0355			0.0285	0.3300	0.0355	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0360			0.0289	0.3300	0.0360	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0499			0.0400	0.3300	0.0499	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 0.1995			0.1600	0.3300	0.1995	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0879			0.0705	0.3300	0.0879	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1372			0.1100	0.3300	0.1372	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0413			0.0331	0.3300	0.0413	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0500			0.0401	0.3300	0.0500	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0522			0.0419	0.3300	0.0522	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0298			0.0239	0.3300	0.0298	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0653			0.0524	0.3300	0.0653	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1446			0.1160	0.3300	0.1446	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0734			0.0589	0.3300	0.0734	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1733			0.1390	0.3300	0.1733	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1509			0.1210	0.3300	0.1509	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1808			0.1450	0.3300	0.1808	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Aniline	62-53-3	< 0.3042			0.2440	0.6600	0.3042	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1372			0.1100	0.3300	0.1372	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 0.3117			0.2500	0.6600	0.3117	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0272			0.0218	0.3300	0.0272	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0702			0.0563	0.3300	0.0702	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.1005			0.0806	0.3300	0.1005	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1372			0.1100	0.3300	0.1372	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0446			0.0358	0.3300	0.0446	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3541			0.2840	0.6600	0.3541	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1983			0.1590	0.6600	0.1983	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.1721			0.1380	0.3300	0.1721	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 15.360			12.800	100.00	15.360	ug/Kg	9/23/2009 12:48:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1833			0.1470	0.3300	0.1833	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1683			0.1350	0.3300	0.1683	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1708			0.1370	0.3300	0.1708	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1496			0.1200	0.3300	0.1496	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1571			0.1260	0.3300	0.1571	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B5-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-01A **Time Received:** 8:05

Sample Time: 8:00 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Di-n-octyl phthalate	117-84-0	< 0.2082			0.1670	0.3300	0.2082	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1559			0.1250	0.3300	0.1559	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Diethyl phthalate	84-66-2	< 0.1546			0.1240	0.3300	0.1546	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1596			0.1280	0.3300	0.1596	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.1081			0.0867	0.3300	0.1081	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1571			0.1260	0.3300	0.1571	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0935			0.0750	0.3300	0.0935	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1384			0.1110	0.3300	0.1384	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1534			0.1230	0.3300	0.1534	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1107			0.0888	0.3300	0.1107	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1201			0.0963	0.3300	0.1201	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1140			0.0914	0.3300	0.1140	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	0.5340			0.0650	0.3300	0.0810	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0931			0.0747	0.3300	0.0931	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0906			0.0727	0.3300	0.0906	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1783			0.1430	0.3300	0.1783	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1808			0.1450	0.3300	0.1808	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.1571			0.1260	0.3300	0.1571	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1195			0.0958	0.3300	0.1195	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenol	108-95-2	< 0.1758			0.1410	0.3300	0.1758	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0998			0.0800	0.3300	0.0998	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1970			0.1580	0.3300	0.1970	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2993			0.2400	0.6600	0.2993	mg/Kg	9/21/2009 7:12:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 0.4613			0.3700	1.0000	0.4613	mg/Kg	9/10/2009	CN_R_TS-9/10/2009	1	SS	9/10/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B5-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-02A **Time Received:** 8:05

Sample Time: 8:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		16			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW6010B													
Aluminum	7429-90-5	20500.0000			0.4630	2.5000	0.5499	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Antimony	7440-36-0	< 0.6770			0.5700	2.5000	0.6770	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Arsenic	7440-38-2	< 0.8183			0.6890	1.5000	0.8183	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Barium	7440-39-3	186.0000			0.2100	1.0000	0.2494	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Beryllium	7440-41-7	1.2400			0.0440	0.5000	0.0523	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cadmium	7440-43-9	< 0.0831			0.0700	0.5000	0.0831	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Calcium	7440-70-2	2280.0000			1.5000	5.0000	1.7815	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Chromium	7440-47-3	31.6000			0.2210	1.0000	0.2625	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cobalt	7440-48-4	7.8500			0.3700	1.0000	0.4394	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Copper	7440-50-8	11.2000			0.4470	1.5000	0.5309	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Iron	7439-89-6	30800.0000			0.9820	5.0000	1.1663	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Lead	7439-92-1	4.2800			0.4500	1.0000	0.5344	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Magnesium	7439-95-4	4480.0000			0.1860	1.0000	0.2209	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Manganese	7439-96-5	117.0000			5.3500	15.0000	6.3539	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Nickel	7440-02-0	29.5000			0.4790	1.0000	0.5689	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Potassium	7440-09-7	1110.0000			4.7100	10.0000	5.5938	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Selenium	7782-49-2	< 1.1758			0.9900	2.0000	1.1758	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Silver	7440-22-4	< 0.5701			0.4800	1.0000	0.5701	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Sodium	7440-23-5	758.0000			0.7500	2.0000	0.8907	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Strontium	7440-24-6	< 0.5107			0.4300	1.0000	0.5107	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Thallium	7440-28-0	< 1.7052			1.4700	5.0000	1.7052	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Vanadium	7440-62-2	24.2000			0.7500	2.0000	0.8907	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Zinc	7440-66-6	58.4000			0.4300	1.0000	0.5107	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2494			0.2100	0.5000	0.2494	mg/kg	9/9/2009	CR6_S-9/9/2009	20	SS	9/9/2009
SW7471A													
Mercury	7439-97-6	< 0.0220			0.0185	0.0400	0.0220	mg/Kg	9/8/2009 7:15:00 PM	HG_R_S-09/8A/2009	1	DW	9/8/2009 2:00:00 PM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 1.0190			0.8580	5.0000	1.0190	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,1,1-Trichloroethane	71-55-6	< 1.4252			1.2000	5.0000	1.4252	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.6841			0.5760	5.0000	0.6841	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.1188			0.9420	5.0000	1.1188	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B5-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-02A **Time Received:** 8:05

Sample Time: 8:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1-Dichloroethane	74-34-3	< 1.0392			0.8750	5.0000	1.0392	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,1-Dichloroethene	75-35-4	< 1.1995			1.0100	5.0000	1.1995	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,1-Dichloropropene	563-58-6	< 0.7827			0.6590	5.0000	0.7827	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 1.0119			0.8520	5.0000	1.0119	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.2827			1.0800	5.0000	1.2827	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 2.9691			2.5000	5.0000	2.9691	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.7542			0.6350	5.0000	0.7542	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.7340			1.4600	5.0000	1.7340	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,2-Dibromoethane	106-93-4	< 0.8812			0.7420	5.0000	0.8812	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7352			0.6190	5.0000	0.7352	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,2-Dichloroethane	107-06-2	< 0.8017			0.6750	5.0000	0.8017	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,2-Dichloropropane	78-87-5	< 1.0261			0.8640	5.0000	1.0261	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 0.8789			0.7400	5.0000	0.8789	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.9299			0.7830	5.0000	0.9299	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,3-Dichloropropane	142-28-9	< 0.6900			0.5810	5.0000	0.6900	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.7530			0.6340	5.0000	0.7530	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
1-Chlorohexane	544-10-5	< 0.5024			0.4230	5.0000	0.5024	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
2,2-Dichloropropane	590-20-7	< 0.9454			0.7960	5.0000	0.9454	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
2-Butanone	78-93-3	< 0.5012			0.4220	10.0000	0.5012	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
2-Chlorotoluene	95-49-8	< 1.2470			1.0500	5.0000	1.2470	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
2-Hexanone	591-78-6	< 0.7791			0.6560	10.0000	0.7791	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
4-Chlorotoluene	106-43-4	< 0.9988			0.8410	5.0000	0.9988	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
4-Isopropyltoluene	99-87-6	< 2.6366			2.2200	5.0000	2.6366	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.6983			1.4300	10.0000	1.6983	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Acetone	67-64-1	< 1.3539			1.1400	10.0000	1.3539	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Allyl chloride	107-05-1	< 2.8622			2.4100	5.0000	2.8622	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Benzene	71-43-2	< 0.6876			0.5790	5.0000	0.6876	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Bromobenzene	108-86-1	< 1.2708			1.0700	5.0000	1.2708	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Bromochloromethane	74-97-5	< 1.1520			0.9700	5.0000	1.1520	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Bromodichloromethane	75-27-4	< 1.0677			0.8990	5.0000	1.0677	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Bromoform	75-25-2	< 0.7803			0.6570	5.0000	0.7803	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Bromomethane	74-83-9	< 2.0903			1.7600	5.0000	2.0903	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Carbon disulfide	75-15-0	< 1.3658			1.1500	5.0000	1.3658	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Carbon tetrachloride	56-23-5	< 0.8658			0.7290	5.0000	0.8658	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B5-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-02A **Time Received:** 8:05

Sample Time: 8:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Chlorobenzene	108-90-7	< 1.1496			0.9680	5.0000	1.1496	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Chloroethane	75-00-3	< 2.0428			1.7200	5.0000	2.0428	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Chloroform	67-66-3	< 1.1995			1.0100	5.0000	1.1995	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Chloromethane	74-87-3	< 3.6223			3.0500	5.0000	3.6223	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.0855			0.9140	5.0000	1.0855	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.1995			1.0100	5.0000	1.1995	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Dibromochloromethane	124-48-1	< 0.9371			0.7890	5.0000	0.9371	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Dibromomethane	74-95-3	< 1.5914			1.3400	5.0000	1.5914	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Dichlorodifluoromethane	75-71-8	< 1.9952			1.6800	5.0000	1.9952	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Ethylbenzene	100-41-4	< 0.9489			0.7990	5.0000	0.9489	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Hexachlorobutadiene	87-68-3	< 2.2328			1.8800	5.0000	2.2328	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Iodomethane	74-88-4	< 1.2233			1.0300	5.0000	1.2233	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Isopropylbenzene	98-82-8	< 1.2470			1.0500	5.0000	1.2470	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
m,p-Xylene	179601-23-	< 1.1995			1.0100	10.0000	1.1995	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Methyl tert-butyl ether	1634-04-4	< 0.9584			0.8070	5.0000	0.9584	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Methylene chloride	75-09-2	< 2.3753			2.0000	5.0000	2.3753	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
n-Butylbenzene	104-51-8	< 0.8409			0.7080	5.0000	0.8409	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
n-Propylbenzene	103-65-1	< 1.1449			0.9640	5.0000	1.1449	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Naphthalene	91-20-3	< 1.0083			0.8490	15.0000	1.0083	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
o-Xylene	95-47-6	< 0.9596			0.8080	5.0000	0.9596	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
sec-Butylbenzene	135-98-8	< 1.5796			1.3300	5.0000	1.5796	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Styrene	100-42-5	< 0.9917			0.8350	5.0000	0.9917	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
tert-Butylbenzene	98-06-6	< 1.2470			1.0500	5.0000	1.2470	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Tetrachloroethene	127-18-4	< 0.8777			0.7390	5.0000	0.8777	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Toluene	108-88-3	< 0.7304			0.6150	5.0000	0.7304	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.0606			0.8930	5.0000	1.0606	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.2589			1.0600	10.0000	1.2589	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Trichloroethene	79-01-6	< 0.8682			0.7310	5.0000	0.8682	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Trichlorofluoromethane	75-69-4	< 2.0071			1.6900	5.0000	2.0071	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
Vinyl chloride	75-01-4	< 1.0926			0.9200	2.0000	1.0926	ug/Kg	9/15/2009 8:17:00 P	VOC1_090915B	1	VKG	9/15/2009 8:17:00 PM
SW8270C													
1,2-Diphenylhydrazine	122-66-7	< 10.9620			9.2300	33.3000	10.9620	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1580			0.1330	0.3300	0.1580	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 14.9644			12.6000	33.3000	14.9644	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B5-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-02A **Time Received:** 8:05

Sample Time: 8:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
1,2,4-Trichlorobenzene	120-82-1	< 0.0517			0.0435	0.3300	0.0517	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0745			0.0627	0.3300	0.0745	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 13.3017			11.2000	33.3000	13.3017	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0236			0.0199	0.3300	0.0236	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 24.8219			20.9000	66.7000	24.8219	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 21.6152			18.2000	66.7000	21.6152	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0829			0.0698	0.3300	0.0829	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0760			0.0640	0.3300	0.0760	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenylphenylether	101-55-3	< 10.6413			8.9600	33.3000	10.6413	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenylphenylether	7005-72-3	< 5.9976			5.0500	33.3000	5.9976	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.2019			0.1700	0.3300	0.2019	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 46.3183			39.0000	100.000	46.3183	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0229			0.0193	0.3300	0.0229	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 20.9026			17.6000	33.3000	20.9026	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0309			0.0260	0.3300	0.0309	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0494			0.0416	0.3300	0.0494	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 10.9976			9.2600	33.3000	10.9976	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0319			0.0269	0.3300	0.0319	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 14.3705			12.1000	33.3000	14.3705	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 15.6770			13.2000	33.3000	15.6770	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1306			0.1100	0.3300	0.1306	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 10.7838			9.0800	33.3000	10.7838	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0240			0.0202	0.3300	0.0240	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0494			0.0416	0.3300	0.0494	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 9.3705			7.8900	33.3000	9.3705	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 15.4394			13.0000	33.3000	15.4394	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0328			0.0276	0.3300	0.0328	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0397			0.0334	0.3300	0.0397	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 18.7648			15.8000	33.3000	18.7648	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0466			0.0392	0.3300	0.0466	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 11.9952			10.1000	33.3000	11.9952	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1663			0.1400	0.3300	0.1663	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 11.3895			9.5900	33.3000	11.3895	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0520			0.0438	0.3300	0.0520	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B5-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-02A **Time Received:** 8:05

Sample Time: 8:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Pentachlorophenol	87-86-5	< 49.8812			42.0000	100.000	49.8812	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0338			0.0285	0.3300	0.0338	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0343			0.0289	0.3300	0.0343	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0475			0.0400	0.3300	0.0475	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 0.1900			0.1600	0.3300	0.1900	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0837			0.0705	0.3300	0.0837	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1306			0.1100	0.3300	0.1306	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0393			0.0331	0.3300	0.0393	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0476			0.0401	0.3300	0.0476	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0498			0.0419	0.3300	0.0498	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0284			0.0239	0.3300	0.0284	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0622			0.0524	0.3300	0.0622	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1378			0.1160	0.3300	0.1378	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0700			0.0589	0.3300	0.0700	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1651			0.1390	0.3300	0.1651	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1437			0.1210	0.3300	0.1437	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1722			0.1450	0.3300	0.1722	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Aniline	62-53-3	< 0.2898			0.2440	0.6600	0.2898	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1306			0.1100	0.3300	0.1306	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 0.2969			0.2500	0.6600	0.2969	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0259			0.0218	0.3300	0.0259	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0669			0.0563	0.3300	0.0669	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0957			0.0806	0.3300	0.0957	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1306			0.1100	0.3300	0.1306	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0425			0.0358	0.3300	0.0425	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3373			0.2840	0.6600	0.3373	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1888			0.1590	0.6600	0.1888	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.1639			0.1380	0.3300	0.1639	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 14.848			12.800	100.00	14.848	ug/Kg	9/23/2009 1:24:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1746			0.1470	0.3300	0.1746	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1603			0.1350	0.3300	0.1603	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1627			0.1370	0.3300	0.1627	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1425			0.1200	0.3300	0.1425	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1496			0.1260	0.3300	0.1496	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B5-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-02A **Time Received:** 8:05

Sample Time: 8:15 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Di-n-octyl phthalate	117-84-0	< 0.1983			0.1670	0.3300	0.1983	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1485			0.1250	0.3300	0.1485	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Diethyl phthalate	84-66-2	< 0.1473			0.1240	0.3300	0.1473	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1520			0.1280	0.3300	0.1520	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.1030			0.0867	0.3300	0.1030	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1496			0.1260	0.3300	0.1496	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0891			0.0750	0.3300	0.0891	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1318			0.1110	0.3300	0.1318	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1461			0.1230	0.3300	0.1461	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1055			0.0888	0.3300	0.1055	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1144			0.0963	0.3300	0.1144	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1086			0.0914	0.3300	0.1086	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	0.4950			0.0650	0.3300	0.0772	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0887			0.0747	0.3300	0.0887	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0863			0.0727	0.3300	0.0863	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1698			0.1430	0.3300	0.1698	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1722			0.1450	0.3300	0.1722	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.1496			0.1260	0.3300	0.1496	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1138			0.0958	0.3300	0.1138	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenol	108-95-2	< 0.1675			0.1410	0.3300	0.1675	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0950			0.0800	0.3300	0.0950	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1876			0.1580	0.3300	0.1876	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2850			0.2400	0.6600	0.2850	mg/Kg	9/21/2009 7:50:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 0.4394			0.3700	1.0000	0.4394	mg/Kg	9/10/2009	CN_R_TS-9/10/2009	1	SS	9/10/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B6-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-03A **Time Received:** 8:05

Sample Time: 13:48 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		13			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW6010B													
Aluminum	7429-90-5	19000.0000			0.4630	2.5000	0.5334	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Antimony	7440-36-0	3.8500			0.5700	2.5000	0.6567	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Arsenic	7440-38-2	< 0.7938			0.6890	1.5000	0.7938	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Barium	7440-39-3	127.0000			0.2100	1.0000	0.2419	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Beryllium	7440-41-7	0.7030			0.0440	0.5000	0.0507	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cadmium	7440-43-9	< 0.0806			0.0700	0.5000	0.0806	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Calcium	7440-70-2	1130.0000			1.5000	5.0000	1.7281	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Chromium	7440-47-3	19.0000			0.2210	1.0000	0.2546	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cobalt	7440-48-4	6.0100			0.3700	1.0000	0.4263	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Copper	7440-50-8	7.1300			0.4470	1.5000	0.5150	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Iron	7439-89-6	15900.0000			0.9820	5.0000	1.1313	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Lead	7439-92-1	11.4000			0.4500	1.0000	0.5184	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Magnesium	7439-95-4	1760.0000			0.1860	1.0000	0.2143	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Manganese	7439-96-5	34.1000			5.3500	15.0000	6.1636	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Nickel	7440-02-0	8.7600			0.4790	1.0000	0.5518	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Potassium	7440-09-7	1170.0000			4.7100	10.0000	5.4263	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Selenium	7782-49-2	< 1.1406			0.9900	2.0000	1.1406	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Silver	7440-22-4	< 0.5530			0.4800	1.0000	0.5530	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Sodium	7440-23-5	102.0000			0.7500	2.0000	0.8641	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Strontium	7440-24-6	< 0.4954			0.4300	1.0000	0.4954	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Thallium	7440-28-0	< 1.6611			1.4700	5.0000	1.6611	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Vanadium	7440-62-2	24.9000			0.7500	2.0000	0.8641	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Zinc	7440-66-6	28.3000			0.4300	1.0000	0.4954	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2419			0.2100	0.5000	0.2419	mg/kg	9/9/2009	CR6_S-9/9/2009	20	SS	9/9/2009
SW7471A													
Mercury	7439-97-6	< 0.0213			0.0185	0.0400	0.0213	mg/Kg	9/8/2009 7:15:00 PM	HG_R_S-09/8A/2009	1	DW	9/8/2009 2:00:00 PM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 0.9885			0.8580	5.0000	0.9885	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,1,1-Trichloroethane	71-55-6	< 1.3825			1.2000	5.0000	1.3825	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.6636			0.5760	5.0000	0.6636	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.0853			0.9420	5.0000	1.0853	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B6-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-03A **Time Received:** 8:05

Sample Time: 13:48 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1-Dichloroethane	74-34-3	< 1.0081			0.8750	5.0000	1.0081	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,1-Dichloroethene	75-35-4	< 1.1636			1.0100	5.0000	1.1636	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,1-Dichloropropene	563-58-6	< 0.7592			0.6590	5.0000	0.7592	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 0.9816			0.8520	5.0000	0.9816	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.2442			1.0800	5.0000	1.2442	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 2.8802			2.5000	5.0000	2.8802	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.7316			0.6350	5.0000	0.7316	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.6820			1.4600	5.0000	1.6820	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,2-Dibromoethane	106-93-4	< 0.8548			0.7420	5.0000	0.8548	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7131			0.6190	5.0000	0.7131	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,2-Dichloroethane	107-06-2	< 0.7776			0.6750	5.0000	0.7776	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,2-Dichloropropane	78-87-5	< 0.9954			0.8640	5.0000	0.9954	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 0.8525			0.7400	5.0000	0.8525	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.9021			0.7830	5.0000	0.9021	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,3-Dichloropropane	142-28-9	< 0.6694			0.5810	5.0000	0.6694	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.7304			0.6340	5.0000	0.7304	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
1-Chlorohexane	544-10-5	< 0.4873			0.4230	5.0000	0.4873	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
2,2-Dichloropropane	590-20-7	< 0.9171			0.7960	5.0000	0.9171	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
2-Butanone	78-93-3	< 0.4862			0.4220	10.0000	0.4862	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
2-Chlorotoluene	95-49-8	< 1.2097			1.0500	5.0000	1.2097	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
2-Hexanone	591-78-6	< 0.7558			0.6560	10.0000	0.7558	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
4-Chlorotoluene	106-43-4	< 0.9689			0.8410	5.0000	0.9689	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
4-Isopropyltoluene	99-87-6	< 2.5576			2.2200	5.0000	2.5576	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.6475			1.4300	10.0000	1.6475	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Acetone	67-64-1	< 1.3134			1.1400	10.0000	1.3134	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Allyl chloride	107-05-1	< 2.7765			2.4100	5.0000	2.7765	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Benzene	71-43-2	< 0.6671			0.5790	5.0000	0.6671	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Bromobenzene	108-86-1	< 1.2327			1.0700	5.0000	1.2327	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Bromochloromethane	74-97-5	< 1.1175			0.9700	5.0000	1.1175	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Bromodichloromethane	75-27-4	< 1.0357			0.8990	5.0000	1.0357	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Bromoform	75-25-2	< 0.7569			0.6570	5.0000	0.7569	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Bromomethane	74-83-9	< 2.0276			1.7600	5.0000	2.0276	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Carbon disulfide	75-15-0	< 1.3249			1.1500	5.0000	1.3249	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Carbon tetrachloride	56-23-5	< 0.8399			0.7290	5.0000	0.8399	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B6-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-03A **Time Received:** 8:05

Sample Time: 13:48 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Chlorobenzene	108-90-7	< 1.1152			0.9680	5.0000	1.1152	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Chloroethane	75-00-3	< 1.9816			1.7200	5.0000	1.9816	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Chloroform	67-66-3	< 1.1636			1.0100	5.0000	1.1636	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Chloromethane	74-87-3	< 3.5138			3.0500	5.0000	3.5138	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.0530			0.9140	5.0000	1.0530	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.1636			1.0100	5.0000	1.1636	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Dibromochloromethane	124-48-1	< 0.9090			0.7890	5.0000	0.9090	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Dibromomethane	74-95-3	< 1.5438			1.3400	5.0000	1.5438	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Dichlorodifluoromethane	75-71-8	< 1.9355			1.6800	5.0000	1.9355	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Ethylbenzene	100-41-4	< 0.9205			0.7990	5.0000	0.9205	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Hexachlorobutadiene	87-68-3	< 2.1659			1.8800	5.0000	2.1659	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Iodomethane	74-88-4	< 1.1866			1.0300	5.0000	1.1866	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Isopropylbenzene	98-82-8	< 1.2097			1.0500	5.0000	1.2097	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
m,p-Xylene	179601-23-	< 1.1636			1.0100	10.0000	1.1636	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Methyl tert-butyl ether	1634-04-4	< 0.9297			0.8070	5.0000	0.9297	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Methylene chloride	75-09-2	< 2.3041			2.0000	5.0000	2.3041	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
n-Butylbenzene	104-51-8	< 0.8157			0.7080	5.0000	0.8157	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
n-Propylbenzene	103-65-1	< 1.1106			0.9640	5.0000	1.1106	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Naphthalene	91-20-3	< 0.9781			0.8490	15.0000	0.9781	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
o-Xylene	95-47-6	< 0.9309			0.8080	5.0000	0.9309	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
sec-Butylbenzene	135-98-8	< 1.5323			1.3300	5.0000	1.5323	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Styrene	100-42-5	< 0.9620			0.8350	5.0000	0.9620	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
tert-Butylbenzene	98-06-6	< 1.2097			1.0500	5.0000	1.2097	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Tetrachloroethene	127-18-4	< 0.8514			0.7390	5.0000	0.8514	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Toluene	108-88-3	< 0.7085			0.6150	5.0000	0.7085	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.0288			0.8930	5.0000	1.0288	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.2212			1.0600	10.0000	1.2212	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Trichloroethene	79-01-6	< 0.8422			0.7310	5.0000	0.8422	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Trichlorofluoromethane	75-69-4	< 1.9470			1.6900	5.0000	1.9470	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
Vinyl chloride	75-01-4	< 1.0599			0.9200	2.0000	1.0599	ug/Kg	9/15/2009 9:00:00 P	VOC1_090915B	1	VKG	9/15/2009 9:00:00 PM
SW8270C													
1,2-Diphenylhydrazine	122-66-7	< 10.6336			9.2300	33.3000	10.6336	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1532			0.1330	0.3300	0.1532	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 14.5161			12.6000	33.3000	14.5161	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B6-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-03A **Time Received:** 8:05

Sample Time: 13:48 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
1,2,4-Trichlorobenzene	120-82-1	< 0.0501			0.0435	0.3300	0.0501	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0722			0.0627	0.3300	0.0722	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 12.9032			11.2000	33.3000	12.9032	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0229			0.0199	0.3300	0.0229	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 24.0783			20.9000	66.7000	24.0783	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 20.9677			18.2000	66.7000	20.9677	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0804			0.0698	0.3300	0.0804	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0737			0.0640	0.3300	0.0737	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenylphenylether	101-55-3	< 10.3226			8.9600	33.3000	10.3226	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenylphenylether	7005-72-3	< 5.8180			5.0500	33.3000	5.8180	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.1959			0.1700	0.3300	0.1959	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 44.9309			39.0000	100.000	44.9309	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0222			0.0193	0.3300	0.0222	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 20.2765			17.6000	33.3000	20.2765	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0300			0.0260	0.3300	0.0300	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0479			0.0416	0.3300	0.0479	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 10.6682			9.2600	33.3000	10.6682	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0310			0.0269	0.3300	0.0310	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 13.9401			12.1000	33.3000	13.9401	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 15.2074			13.2000	33.3000	15.2074	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1267			0.1100	0.3300	0.1267	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 10.4608			9.0800	33.3000	10.4608	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0233			0.0202	0.3300	0.0233	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0479			0.0416	0.3300	0.0479	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 9.0899			7.8900	33.3000	9.0899	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 14.9770			13.0000	33.3000	14.9770	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0318			0.0276	0.3300	0.0318	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0385			0.0334	0.3300	0.0385	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 18.2028			15.8000	33.3000	18.2028	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0452			0.0392	0.3300	0.0452	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 11.6359			10.1000	33.3000	11.6359	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1613			0.1400	0.3300	0.1613	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 11.0484			9.5900	33.3000	11.0484	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0505			0.0438	0.3300	0.0505	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B6-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-03A **Time Received:** 8:05

Sample Time: 13:48 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Pentachlorophenol	87-86-5	< 48.3871			42.0000	100.000	48.3871	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0328			0.0285	0.3300	0.0328	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0333			0.0289	0.3300	0.0333	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0461			0.0400	0.3300	0.0461	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 0.1843			0.1600	0.3300	0.1843	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0812			0.0705	0.3300	0.0812	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1267			0.1100	0.3300	0.1267	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0381			0.0331	0.3300	0.0381	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0462			0.0401	0.3300	0.0462	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0483			0.0419	0.3300	0.0483	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0275			0.0239	0.3300	0.0275	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0604			0.0524	0.3300	0.0604	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1336			0.1160	0.3300	0.1336	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0679			0.0589	0.3300	0.0679	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1601			0.1390	0.3300	0.1601	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1394			0.1210	0.3300	0.1394	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1671			0.1450	0.3300	0.1671	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Aniline	62-53-3	< 0.2811			0.2440	0.6600	0.2811	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1267			0.1100	0.3300	0.1267	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 0.2880			0.2500	0.6600	0.2880	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0251			0.0218	0.3300	0.0251	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0649			0.0563	0.3300	0.0649	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0929			0.0806	0.3300	0.0929	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1267			0.1100	0.3300	0.1267	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0412			0.0358	0.3300	0.0412	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3272			0.2840	0.6600	0.3272	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1832			0.1590	0.6600	0.1832	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.1590			0.1380	0.3300	0.1590	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 14.464			12.800	100.00	14.464	ug/Kg	9/23/2009 1:58:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1694			0.1470	0.3300	0.1694	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1555			0.1350	0.3300	0.1555	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1578			0.1370	0.3300	0.1578	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1382			0.1200	0.3300	0.1382	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1452			0.1260	0.3300	0.1452	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B6-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-03A **Time Received:** 8:05

Sample Time: 13:48 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Di-n-octyl phthalate	117-84-0	< 0.1924			0.1670	0.3300	0.1924	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1440			0.1250	0.3300	0.1440	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Diethyl phthalate	84-66-2	< 0.1429			0.1240	0.3300	0.1429	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1475			0.1280	0.3300	0.1475	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.0999			0.0867	0.3300	0.0999	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1452			0.1260	0.3300	0.1452	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0864			0.0750	0.3300	0.0864	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1279			0.1110	0.3300	0.1279	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1417			0.1230	0.3300	0.1417	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1023			0.0888	0.3300	0.1023	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1109			0.0963	0.3300	0.1109	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1053			0.0914	0.3300	0.1053	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0749			0.0650	0.3300	0.0749	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0861			0.0747	0.3300	0.0861	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0838			0.0727	0.3300	0.0838	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1647			0.1430	0.3300	0.1647	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1671			0.1450	0.3300	0.1671	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.1452			0.1260	0.3300	0.1452	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1104			0.0958	0.3300	0.1104	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenol	108-95-2	< 0.1624			0.1410	0.3300	0.1624	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0922			0.0800	0.3300	0.0922	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1820			0.1580	0.3300	0.1820	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2765			0.2400	0.6600	0.2765	mg/Kg	9/21/2009 9:55:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 0.4263			0.3700	1.0000	0.4263	mg/Kg	9/10/2009	CN_R_TS-9/10/2009	1	SS	9/10/2009

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TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B6-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-04A **Time Received:** 8:05

Sample Time: 14:06 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		16			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW6010B													
Aluminum	7429-90-5	19300.0000			0.4630	2.5000	0.5499	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Antimony	7440-36-0	< 0.6770			0.5700	2.5000	0.6770	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Arsenic	7440-38-2	4.1800			0.6890	1.5000	0.8183	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Barium	7440-39-3	113.0000			0.2100	1.0000	0.2494	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Beryllium	7440-41-7	1.9200			0.0440	0.5000	0.0523	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cadmium	7440-43-9	< 0.0831			0.0700	0.5000	0.0831	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Calcium	7440-70-2	2020.0000			1.5000	5.0000	1.7815	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Chromium	7440-47-3	19.1000			0.2210	1.0000	0.2625	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cobalt	7440-48-4	9.2600			0.3700	1.0000	0.4394	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Copper	7440-50-8	12.5000			0.4470	1.5000	0.5309	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Iron	7439-89-6	37700.0000			0.9820	5.0000	1.1663	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Lead	7439-92-1	8.8400			0.4500	1.0000	0.5344	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Magnesium	7439-95-4	2860.0000			0.1860	1.0000	0.2209	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Manganese	7439-96-5	163.0000			5.3500	15.0000	6.3539	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Nickel	7440-02-0	31.2000			0.4790	1.0000	0.5689	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Potassium	7440-09-7	1030.0000			4.7100	10.0000	5.5938	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Selenium	7782-49-2	< 1.1758			0.9900	2.0000	1.1758	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Silver	7440-22-4	< 0.5701			0.4800	1.0000	0.5701	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Sodium	7440-23-5	543.0000			0.7500	2.0000	0.8907	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Strontium	7440-24-6	< 0.5107			0.4300	1.0000	0.5107	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Thallium	7440-28-0	< 1.7052			1.4700	5.0000	1.7052	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Vanadium	7440-62-2	32.2000			0.7500	2.0000	0.8907	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Zinc	7440-66-6	62.2000			0.4300	1.0000	0.5107	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2494			0.2100	0.5000	0.2494	mg/kg	9/9/2009	CR6_S-9/9/2009	20	SS	9/9/2009
SW7471A													
Mercury	7439-97-6	< 0.0220			0.0185	0.0400	0.0220	mg/Kg	9/8/2009 7:15:00 PM	HG_R_S-09/8A/2009	1	DW	9/8/2009 2:00:00 PM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 1.0190			0.8580	5.0000	1.0190	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,1,1-Trichloroethane	71-55-6	< 1.4252			1.2000	5.0000	1.4252	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.6841			0.5760	5.0000	0.6841	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.1188			0.9420	5.0000	1.1188	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B6-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-04A **Time Received:** 8:05

Sample Time: 14:06 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1-Dichloroethane	74-34-3	< 1.0392			0.8750	5.0000	1.0392	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,1-Dichloroethene	75-35-4	< 1.1995			1.0100	5.0000	1.1995	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,1-Dichloropropene	563-58-6	< 0.7827			0.6590	5.0000	0.7827	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 1.0119			0.8520	5.0000	1.0119	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.2827			1.0800	5.0000	1.2827	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 2.9691			2.5000	5.0000	2.9691	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.7542			0.6350	5.0000	0.7542	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.7340			1.4600	5.0000	1.7340	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,2-Dibromoethane	106-93-4	< 0.8812			0.7420	5.0000	0.8812	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7352			0.6190	5.0000	0.7352	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,2-Dichloroethane	107-06-2	< 0.8017			0.6750	5.0000	0.8017	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,2-Dichloropropane	78-87-5	< 1.0261			0.8640	5.0000	1.0261	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 0.8789			0.7400	5.0000	0.8789	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.9299			0.7830	5.0000	0.9299	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,3-Dichloropropane	142-28-9	< 0.6900			0.5810	5.0000	0.6900	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.7530			0.6340	5.0000	0.7530	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
1-Chlorohexane	544-10-5	< 0.5024			0.4230	5.0000	0.5024	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
2,2-Dichloropropane	590-20-7	< 0.9454			0.7960	5.0000	0.9454	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
2-Butanone	78-93-3	< 0.5012			0.4220	10.0000	0.5012	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
2-Chlorotoluene	95-49-8	< 1.2470			1.0500	5.0000	1.2470	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
2-Hexanone	591-78-6	< 0.7791			0.6560	10.0000	0.7791	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
4-Chlorotoluene	106-43-4	< 0.9988			0.8410	5.0000	0.9988	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
4-Isopropyltoluene	99-87-6	< 2.6366			2.2200	5.0000	2.6366	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.6983			1.4300	10.0000	1.6983	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Acetone	67-64-1	< 1.3539			1.1400	10.0000	1.3539	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Allyl chloride	107-05-1	< 2.8622			2.4100	5.0000	2.8622	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Benzene	71-43-2	< 0.6876			0.5790	5.0000	0.6876	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Bromobenzene	108-86-1	< 1.2708			1.0700	5.0000	1.2708	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Bromochloromethane	74-97-5	< 1.1520			0.9700	5.0000	1.1520	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Bromodichloromethane	75-27-4	< 1.0677			0.8990	5.0000	1.0677	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Bromoform	75-25-2	< 0.7803			0.6570	5.0000	0.7803	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Bromomethane	74-83-9	< 2.0903			1.7600	5.0000	2.0903	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Carbon disulfide	75-15-0	< 1.3658			1.1500	5.0000	1.3658	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Carbon tetrachloride	56-23-5	< 0.8658			0.7290	5.0000	0.8658	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B6-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-04A **Time Received:** 8:05

Sample Time: 14:06 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Chlorobenzene	108-90-7	< 1.1496			0.9680	5.0000	1.1496	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Chloroethane	75-00-3	< 2.0428			1.7200	5.0000	2.0428	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Chloroform	67-66-3	< 1.1995			1.0100	5.0000	1.1995	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Chloromethane	74-87-3	< 3.6223			3.0500	5.0000	3.6223	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.0855			0.9140	5.0000	1.0855	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.1995			1.0100	5.0000	1.1995	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Dibromochloromethane	124-48-1	< 0.9371			0.7890	5.0000	0.9371	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Dibromomethane	74-95-3	< 1.5914			1.3400	5.0000	1.5914	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Dichlorodifluoromethane	75-71-8	< 1.9952			1.6800	5.0000	1.9952	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Ethylbenzene	100-41-4	< 0.9489			0.7990	5.0000	0.9489	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Hexachlorobutadiene	87-68-3	< 2.2328			1.8800	5.0000	2.2328	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Iodomethane	74-88-4	< 1.2233			1.0300	5.0000	1.2233	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Isopropylbenzene	98-82-8	< 1.2470			1.0500	5.0000	1.2470	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
m,p-Xylene	179601-23-	< 1.1995			1.0100	10.0000	1.1995	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Methyl tert-butyl ether	1634-04-4	< 0.9584			0.8070	5.0000	0.9584	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Methylene chloride	75-09-2	< 2.3753			2.0000	5.0000	2.3753	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
n-Butylbenzene	104-51-8	< 0.8409			0.7080	5.0000	0.8409	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
n-Propylbenzene	103-65-1	< 1.1449			0.9640	5.0000	1.1449	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Naphthalene	91-20-3	< 1.0083			0.8490	15.0000	1.0083	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
o-Xylene	95-47-6	< 0.9596			0.8080	5.0000	0.9596	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
sec-Butylbenzene	135-98-8	< 1.5796			1.3300	5.0000	1.5796	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Styrene	100-42-5	< 0.9917			0.8350	5.0000	0.9917	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
tert-Butylbenzene	98-06-6	< 1.2470			1.0500	5.0000	1.2470	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Tetrachloroethene	127-18-4	< 0.8777			0.7390	5.0000	0.8777	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Toluene	108-88-3	< 0.7304			0.6150	5.0000	0.7304	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.0606			0.8930	5.0000	1.0606	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.2589			1.0600	10.0000	1.2589	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Trichloroethene	79-01-6	< 0.8682			0.7310	5.0000	0.8682	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Trichlorofluoromethane	75-69-4	< 2.0071			1.6900	5.0000	2.0071	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
Vinyl chloride	75-01-4	< 1.0926			0.9200	2.0000	1.0926	ug/Kg	9/15/2009 9:44:00 P	VOC1_090915B	1	VKG	9/15/2009 9:44:00 PM
SW8270C													
1,2-Diphenylhydrazine	122-66-7	< 10.9620			9.2300	33.3000	10.9620	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1580			0.1330	0.3300	0.1580	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 14.9644			12.6000	33.3000	14.9644	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B6-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-04A **Time Received:** 8:05

Sample Time: 14:06 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
1,2,4-Trichlorobenzene	120-82-1	< 0.0517			0.0435	0.3300	0.0517	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0745			0.0627	0.3300	0.0745	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 13.3017			11.2000	33.3000	13.3017	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0236			0.0199	0.3300	0.0236	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 24.8219			20.9000	66.7000	24.8219	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 21.6152			18.2000	66.7000	21.6152	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0829			0.0698	0.3300	0.0829	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0760			0.0640	0.3300	0.0760	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenylphenylether	101-55-3	< 10.6413			8.9600	33.3000	10.6413	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenylphenylether	7005-72-3	< 5.9976			5.0500	33.3000	5.9976	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.2019			0.1700	0.3300	0.2019	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 46.3183			39.0000	100.000	46.3183	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0229			0.0193	0.3300	0.0229	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 20.9026			17.6000	33.3000	20.9026	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0309			0.0260	0.3300	0.0309	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0494			0.0416	0.3300	0.0494	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 10.9976			9.2600	33.3000	10.9976	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0319			0.0269	0.3300	0.0319	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 14.3705			12.1000	33.3000	14.3705	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 15.6770			13.2000	33.3000	15.6770	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1306			0.1100	0.3300	0.1306	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 10.7838			9.0800	33.3000	10.7838	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0240			0.0202	0.3300	0.0240	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0494			0.0416	0.3300	0.0494	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 9.3705			7.8900	33.3000	9.3705	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 15.4394			13.0000	33.3000	15.4394	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0328			0.0276	0.3300	0.0328	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0397			0.0334	0.3300	0.0397	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 18.7648			15.8000	33.3000	18.7648	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0466			0.0392	0.3300	0.0466	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 11.9952			10.1000	33.3000	11.9952	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1663			0.1400	0.3300	0.1663	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 11.3895			9.5900	33.3000	11.3895	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0520			0.0438	0.3300	0.0520	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B6-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-04A **Time Received:** 8:05

Sample Time: 14:06 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Pentachlorophenol	87-86-5	< 49.8812			42.0000	100.000	49.8812	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0338			0.0285	0.3300	0.0338	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0343			0.0289	0.3300	0.0343	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0475			0.0400	0.3300	0.0475	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 0.1900			0.1600	0.3300	0.1900	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0837			0.0705	0.3300	0.0837	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1306			0.1100	0.3300	0.1306	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0393			0.0331	0.3300	0.0393	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0476			0.0401	0.3300	0.0476	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0498			0.0419	0.3300	0.0498	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0284			0.0239	0.3300	0.0284	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0622			0.0524	0.3300	0.0622	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1378			0.1160	0.3300	0.1378	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0700			0.0589	0.3300	0.0700	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1651			0.1390	0.3300	0.1651	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1437			0.1210	0.3300	0.1437	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1722			0.1450	0.3300	0.1722	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Aniline	62-53-3	< 0.2898			0.2440	0.6600	0.2898	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1306			0.1100	0.3300	0.1306	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 0.2969			0.2500	0.6600	0.2969	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0259			0.0218	0.3300	0.0259	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0669			0.0563	0.3300	0.0669	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0957			0.0806	0.3300	0.0957	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1306			0.1100	0.3300	0.1306	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0425			0.0358	0.3300	0.0425	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3373			0.2840	0.6600	0.3373	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1888			0.1590	0.6600	0.1888	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.1639			0.1380	0.3300	0.1639	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 14.848			12.800	100.00	14.848	ug/Kg	9/23/2009 2:35:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1746			0.1470	0.3300	0.1746	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1603			0.1350	0.3300	0.1603	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1627			0.1370	0.3300	0.1627	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1425			0.1200	0.3300	0.1425	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1496			0.1260	0.3300	0.1496	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B6-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-04A **Time Received:** 8:05

Sample Time: 14:06 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Di-n-octyl phthalate	117-84-0	< 0.1983			0.1670	0.3300	0.1983	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1485			0.1250	0.3300	0.1485	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Diethyl phthalate	84-66-2	< 0.1473			0.1240	0.3300	0.1473	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1520			0.1280	0.3300	0.1520	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.1030			0.0867	0.3300	0.1030	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1496			0.1260	0.3300	0.1496	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0891			0.0750	0.3300	0.0891	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1318			0.1110	0.3300	0.1318	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1461			0.1230	0.3300	0.1461	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1055			0.0888	0.3300	0.1055	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1144			0.0963	0.3300	0.1144	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1086			0.0914	0.3300	0.1086	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0772			0.0650	0.3300	0.0772	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0887			0.0747	0.3300	0.0887	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0863			0.0727	0.3300	0.0863	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1698			0.1430	0.3300	0.1698	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1722			0.1450	0.3300	0.1722	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.1496			0.1260	0.3300	0.1496	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1138			0.0958	0.3300	0.1138	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenol	108-95-2	< 0.1675			0.1410	0.3300	0.1675	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0950			0.0800	0.3300	0.0950	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1876			0.1580	0.3300	0.1876	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2850			0.2400	0.6600	0.2850	mg/Kg	9/21/2009 8:28:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 0.4394			0.3700	1.0000	0.4394	mg/Kg	9/10/2009	CN_R_TS-9/10/2009	1	SS	9/10/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B8-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-05A **Time Received:** 8:05

Sample Time: 14:25 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		15			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW6010B													
Aluminum	7429-90-5	22000.0000			0.4630	2.5000	0.5441	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Antimony	7440-36-0	< 0.6698			0.5700	2.5000	0.6698	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Arsenic	7440-38-2	3.9000			0.6890	1.5000	0.8096	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Barium	7440-39-3	53.7000			0.2100	1.0000	0.2468	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Beryllium	7440-41-7	0.4230		J	0.0440	0.5000	0.0517	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cadmium	7440-43-9	< 0.0823			0.0700	0.5000	0.0823	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Calcium	7440-70-2	330.0000			1.5000	5.0000	1.7626	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Chromium	7440-47-3	18.8000			0.2210	1.0000	0.2597	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cobalt	7440-48-4	3.0400			0.3700	1.0000	0.4348	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Copper	7440-50-8	3.3700			0.4470	1.5000	0.5253	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Iron	7439-89-6	24600.0000			0.9820	5.0000	1.1539	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Lead	7439-92-1	10.0000			0.4500	1.0000	0.5288	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Magnesium	7439-95-4	868.0000			0.1860	1.0000	0.2186	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Manganese	7439-96-5	36.7000			5.3500	15.0000	6.2867	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Nickel	7440-02-0	7.1800			0.4790	1.0000	0.5629	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Potassium	7440-09-7	796.0000			4.7100	10.0000	5.5347	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Selenium	7782-49-2	< 1.1633			0.9900	2.0000	1.1633	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Silver	7440-22-4	< 0.5640			0.4800	1.0000	0.5640	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Sodium	7440-23-5	< 0.8813			0.7500	2.0000	0.8813	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Strontium	7440-24-6	< 0.5053			0.4300	1.0000	0.5053	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Thallium	7440-28-0	< 1.6905			1.4700	5.0000	1.6905	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Vanadium	7440-62-2	39.5000			0.7500	2.0000	0.8813	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Zinc	7440-66-6	18.9000			0.4300	1.0000	0.5053	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2468			0.2100	0.5000	0.2468	mg/kg	9/9/2009	CR6_S-9/9/2009	20	SS	9/9/2009
SW7471A													
Mercury	7439-97-6	< 0.0217			0.0185	0.0400	0.0217	mg/Kg	9/8/2009 7:15:00 PM	HG_R_S-09/8A/2009	1	DW	9/8/2009 2:00:00 PM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 1.0082			0.8580	5.0000	1.0082	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,1,1-Trichloroethane	71-55-6	< 1.4101			1.2000	5.0000	1.4101	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.6769			0.5760	5.0000	0.6769	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.1069			0.9420	5.0000	1.1069	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B8-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-05A **Time Received:** 8:05

Sample Time: 14:25 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1-Dichloroethane	74-34-3	< 1.0282			0.8750	5.0000	1.0282	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,1-Dichloroethene	75-35-4	< 1.1868			1.0100	5.0000	1.1868	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,1-Dichloropropene	563-58-6	< 0.7744			0.6590	5.0000	0.7744	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 1.0012			0.8520	5.0000	1.0012	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.2691			1.0800	5.0000	1.2691	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 2.9377			2.5000	5.0000	2.9377	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.7462			0.6350	5.0000	0.7462	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.7156			1.4600	5.0000	1.7156	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,2-Dibromoethane	106-93-4	< 0.8719			0.7420	5.0000	0.8719	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7274			0.6190	5.0000	0.7274	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,2-Dichloroethane	107-06-2	< 0.7932			0.6750	5.0000	0.7932	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,2-Dichloropropane	78-87-5	< 1.0153			0.8640	5.0000	1.0153	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 0.8696			0.7400	5.0000	0.8696	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.9201			0.7830	5.0000	0.9201	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,3-Dichloropropane	142-28-9	< 0.6827			0.5810	5.0000	0.6827	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.7450			0.6340	5.0000	0.7450	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
1-Chlorohexane	544-10-5	< 0.4971			0.4230	5.0000	0.4971	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
2,2-Dichloropropane	590-20-7	< 0.9354			0.7960	5.0000	0.9354	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
2-Butanone	78-93-3	< 0.4959			0.4220	10.0000	0.4959	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
2-Chlorotoluene	95-49-8	< 1.2338			1.0500	5.0000	1.2338	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
2-Hexanone	591-78-6	< 0.7709			0.6560	10.0000	0.7709	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
4-Chlorotoluene	106-43-4	< 0.9882			0.8410	5.0000	0.9882	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
4-Isopropyltoluene	99-87-6	< 2.6087			2.2200	5.0000	2.6087	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.6804			1.4300	10.0000	1.6804	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Acetone	67-64-1	< 1.3396			1.1400	10.0000	1.3396	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Allyl chloride	107-05-1	< 2.8320			2.4100	5.0000	2.8320	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Benzene	71-43-2	< 0.6804			0.5790	5.0000	0.6804	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Bromobenzene	108-86-1	< 1.2573			1.0700	5.0000	1.2573	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Bromochloromethane	74-97-5	< 1.1398			0.9700	5.0000	1.1398	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Bromodichloromethane	75-27-4	< 1.0564			0.8990	5.0000	1.0564	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Bromoform	75-25-2	< 0.7720			0.6570	5.0000	0.7720	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Bromomethane	74-83-9	< 2.0682			1.7600	5.0000	2.0682	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Carbon disulfide	75-15-0	< 1.3514			1.1500	5.0000	1.3514	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Carbon tetrachloride	56-23-5	< 0.8566			0.7290	5.0000	0.8566	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B8-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-05A **Time Received:** 8:05

Sample Time: 14:25 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Chlorobenzene	108-90-7	< 1.1375			0.9680	5.0000	1.1375	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Chloroethane	75-00-3	< 2.0212			1.7200	5.0000	2.0212	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Chloroform	67-66-3	< 1.1868			1.0100	5.0000	1.1868	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Chloromethane	74-87-3	< 3.5840			3.0500	5.0000	3.5840	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.0740			0.9140	5.0000	1.0740	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.1868			1.0100	5.0000	1.1868	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Dibromochloromethane	124-48-1	< 0.9271			0.7890	5.0000	0.9271	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Dibromomethane	74-95-3	< 1.5746			1.3400	5.0000	1.5746	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Dichlorodifluoromethane	75-71-8	< 1.9741			1.6800	5.0000	1.9741	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Ethylbenzene	100-41-4	< 0.9389			0.7990	5.0000	0.9389	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Hexachlorobutadiene	87-68-3	< 2.2092			1.8800	5.0000	2.2092	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Iodomethane	74-88-4	< 1.2103			1.0300	5.0000	1.2103	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Isopropylbenzene	98-82-8	< 1.2338			1.0500	5.0000	1.2338	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
m,p-Xylene	179601-23-	< 1.1868			1.0100	10.0000	1.1868	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Methyl tert-butyl ether	1634-04-4	< 0.9483			0.8070	5.0000	0.9483	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Methylene chloride	75-09-2	< 2.3502			2.0000	5.0000	2.3502	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
n-Butylbenzene	104-51-8	< 0.8320			0.7080	5.0000	0.8320	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
n-Propylbenzene	103-65-1	< 1.1328			0.9640	5.0000	1.1328	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Naphthalene	91-20-3	< 0.9976			0.8490	15.0000	0.9976	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
o-Xylene	95-47-6	< 0.9495			0.8080	5.0000	0.9495	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
sec-Butylbenzene	135-98-8	< 1.5629			1.3300	5.0000	1.5629	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Styrene	100-42-5	< 0.9812			0.8350	5.0000	0.9812	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
tert-Butylbenzene	98-06-6	< 1.2338			1.0500	5.0000	1.2338	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Tetrachloroethene	127-18-4	< 0.8684			0.7390	5.0000	0.8684	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Toluene	108-88-3	< 0.7227			0.6150	5.0000	0.7227	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.0494			0.8930	5.0000	1.0494	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.2456			1.0600	10.0000	1.2456	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Trichloroethene	79-01-6	< 0.8590			0.7310	5.0000	0.8590	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Trichlorofluoromethane	75-69-4	< 1.9859			1.6900	5.0000	1.9859	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
Vinyl chloride	75-01-4	< 1.0811			0.9200	2.0000	1.0811	ug/Kg	9/15/2009 10:28:00 P	VOC1_090915B	1	VKG	9/15/2009 10:28:00 PM
SW8270C													
1,2-Diphenylhydrazine	122-66-7	< 10.8461			9.2300	33.3000	10.8461	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1563			0.1330	0.3300	0.1563	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 14.8061			12.6000	33.3000	14.8061	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B8-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-05A **Time Received:** 8:05

Sample Time: 14:25 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
1,2,4-Trichlorobenzene	120-82-1	< 0.0511			0.0435	0.3300	0.0511	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0737			0.0627	0.3300	0.0737	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 13.1610			11.2000	33.3000	13.1610	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0234			0.0199	0.3300	0.0234	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 24.5593			20.9000	66.7000	24.5593	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 21.3866			18.2000	66.7000	21.3866	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0820			0.0698	0.3300	0.0820	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0752			0.0640	0.3300	0.0752	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenylphenylether	101-55-3	< 10.5288			8.9600	33.3000	10.5288	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenylphenylether	7005-72-3	< 5.9342			5.0500	33.3000	5.9342	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.1998			0.1700	0.3300	0.1998	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 45.8284			39.0000	100.000	45.8284	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0227			0.0193	0.3300	0.0227	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 20.6816			17.6000	33.3000	20.6816	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0306			0.0260	0.3300	0.0306	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0489			0.0416	0.3300	0.0489	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 10.8813			9.2600	33.3000	10.8813	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0316			0.0269	0.3300	0.0316	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 14.2186			12.1000	33.3000	14.2186	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 15.5112			13.2000	33.3000	15.5112	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1293			0.1100	0.3300	0.1293	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 10.6698			9.0800	33.3000	10.6698	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0237			0.0202	0.3300	0.0237	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0489			0.0416	0.3300	0.0489	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 9.2714			7.8900	33.3000	9.2714	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 15.2761			13.0000	33.3000	15.2761	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0324			0.0276	0.3300	0.0324	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0392			0.0334	0.3300	0.0392	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 18.5664			15.8000	33.3000	18.5664	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0461			0.0392	0.3300	0.0461	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 11.8684			10.1000	33.3000	11.8684	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1645			0.1400	0.3300	0.1645	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 11.2691			9.5900	33.3000	11.2691	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0515			0.0438	0.3300	0.0515	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B8-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-05A **Time Received:** 8:05

Sample Time: 14:25 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Pentachlorophenol	87-86-5	< 49.3537			42.0000	100.000	49.3537	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0335			0.0285	0.3300	0.0335	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0340			0.0289	0.3300	0.0340	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0470			0.0400	0.3300	0.0470	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 0.1880			0.1600	0.3300	0.1880	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0828			0.0705	0.3300	0.0828	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1293			0.1100	0.3300	0.1293	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0389			0.0331	0.3300	0.0389	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0471			0.0401	0.3300	0.0471	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0492			0.0419	0.3300	0.0492	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0281			0.0239	0.3300	0.0281	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0616			0.0524	0.3300	0.0616	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1363			0.1160	0.3300	0.1363	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0692			0.0589	0.3300	0.0692	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1633			0.1390	0.3300	0.1633	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1422			0.1210	0.3300	0.1422	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1704			0.1450	0.3300	0.1704	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Aniline	62-53-3	< 0.2867			0.2440	0.6600	0.2867	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1293			0.1100	0.3300	0.1293	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 0.2938			0.2500	0.6600	0.2938	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0256			0.0218	0.3300	0.0256	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0662			0.0563	0.3300	0.0662	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0947			0.0806	0.3300	0.0947	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1293			0.1100	0.3300	0.1293	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0421			0.0358	0.3300	0.0421	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3337			0.2840	0.6600	0.3337	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1868			0.1590	0.6600	0.1868	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.1622			0.1380	0.3300	0.1622	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 14.720			12.800	100.00	14.720	ug/Kg	9/23/2009 3:12:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1727			0.1470	0.3300	0.1727	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1586			0.1350	0.3300	0.1586	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1610			0.1370	0.3300	0.1610	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1410			0.1200	0.3300	0.1410	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1481			0.1260	0.3300	0.1481	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B8-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-05A **Time Received:** 8:05

Sample Time: 14:25 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Di-n-octyl phthalate	117-84-0	< 0.1962			0.1670	0.3300	0.1962	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1469			0.1250	0.3300	0.1469	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Diethyl phthalate	84-66-2	< 0.1457			0.1240	0.3300	0.1457	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1504			0.1280	0.3300	0.1504	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.1019			0.0867	0.3300	0.1019	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1481			0.1260	0.3300	0.1481	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0881			0.0750	0.3300	0.0881	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1304			0.1110	0.3300	0.1304	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1445			0.1230	0.3300	0.1445	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1043			0.0888	0.3300	0.1043	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1132			0.0963	0.3300	0.1132	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1074			0.0914	0.3300	0.1074	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0764			0.0650	0.3300	0.0764	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0878			0.0747	0.3300	0.0878	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0854			0.0727	0.3300	0.0854	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1680			0.1430	0.3300	0.1680	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1704			0.1450	0.3300	0.1704	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.1481			0.1260	0.3300	0.1481	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1126			0.0958	0.3300	0.1126	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenol	108-95-2	< 0.1657			0.1410	0.3300	0.1657	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0940			0.0800	0.3300	0.0940	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1857			0.1580	0.3300	0.1857	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2820			0.2400	0.6600	0.2820	mg/Kg	9/21/2009 9:06:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 0.4348			0.3700	1.0000	0.4348	mg/Kg	9/10/2009	CN_R_TS-9/10/2009	1	SS	9/10/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B8-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-06A **Time Received:** 8:05

Sample Time: 14:43 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		13			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW6010B													
Aluminum	7429-90-5	16300.0000			0.4630	2.5000	0.5291	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Antimony	7440-36-0	< 0.6514			0.5700	2.5000	0.6514	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Arsenic	7440-38-2	< 0.7874			0.6890	1.5000	0.7874	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Barium	7440-39-3	72.7000			0.2100	1.0000	0.2400	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Beryllium	7440-41-7	0.7540			0.0440	0.5000	0.0503	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cadmium	7440-43-9	< 0.0800			0.0700	0.5000	0.0800	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Calcium	7440-70-2	770.0000			1.5000	5.0000	1.7143	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Chromium	7440-47-3	10.6000			0.2210	1.0000	0.2526	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cobalt	7440-48-4	51.1000			0.3700	1.0000	0.4229	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Copper	7440-50-8	4.6300			0.4470	1.5000	0.5109	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Iron	7439-89-6	18400.0000			0.9820	5.0000	1.1223	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Lead	7439-92-1	21.3000			0.4500	1.0000	0.5143	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Magnesium	7439-95-4	1160.0000			0.1860	1.0000	0.2126	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Manganese	7439-96-5	1040.0000			5.3500	15.0000	6.1143	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Nickel	7440-02-0	15.0000			0.4790	1.0000	0.5474	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Potassium	7440-09-7	693.0000			4.7100	10.0000	5.3829	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Selenium	7782-49-2	< 1.1314			0.9900	2.0000	1.1314	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Silver	7440-22-4	< 0.5486			0.4800	1.0000	0.5486	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Sodium	7440-23-5	437.0000			0.7500	2.0000	0.8571	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Strontium	7440-24-6	< 0.4914			0.4300	1.0000	0.4914	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Thallium	7440-28-0	< 1.6611			1.4700	5.0000	1.6611	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Vanadium	7440-62-2	20.8000			0.7500	2.0000	0.8571	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Zinc	7440-66-6	23.5000			0.4300	1.0000	0.4914	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2400			0.2100	0.5000	0.2400	mg/kg	9/9/2009	CR6_S-9/9/2009	20	SS	9/9/2009
SW7471A													
Mercury	7439-97-6	< 0.0211			0.0185	0.0400	0.0211	mg/Kg	9/8/2009 7:15:00 PM	HG_R_S-09/8A/2009	1	DW	9/8/2009 2:00:00 PM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 0.9806			0.8580	5.0000	0.9806	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,1,1-Trichloroethane	71-55-6	< 1.3714			1.2000	5.0000	1.3714	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.6583			0.5760	5.0000	0.6583	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.0766			0.9420	5.0000	1.0766	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B8-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-06A **Time Received:** 8:05

Sample Time: 14:43 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1-Dichloroethane	74-34-3	< 1.0000			0.8750	5.0000	1.0000	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,1-Dichloroethene	75-35-4	< 1.1543			1.0100	5.0000	1.1543	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,1-Dichloropropene	563-58-6	< 0.7531			0.6590	5.0000	0.7531	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 0.9737			0.8520	5.0000	0.9737	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.2343			1.0800	5.0000	1.2343	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 2.8571			2.5000	5.0000	2.8571	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.7257			0.6350	5.0000	0.7257	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.6686			1.4600	5.0000	1.6686	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,2-Dibromoethane	106-93-4	< 0.8480			0.7420	5.0000	0.8480	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7074			0.6190	5.0000	0.7074	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,2-Dichloroethane	107-06-2	< 0.7714			0.6750	5.0000	0.7714	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,2-Dichloropropane	78-87-5	< 0.9874			0.8640	5.0000	0.9874	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 0.8457			0.7400	5.0000	0.8457	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.8949			0.7830	5.0000	0.8949	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,3-Dichloropropane	142-28-9	< 0.6640			0.5810	5.0000	0.6640	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.7246			0.6340	5.0000	0.7246	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
1-Chlorohexane	544-10-5	< 0.4834			0.4230	5.0000	0.4834	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
2,2-Dichloropropane	590-20-7	< 0.9097			0.7960	5.0000	0.9097	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
2-Butanone	78-93-3	< 0.4823			0.4220	10.0000	0.4823	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
2-Chlorotoluene	95-49-8	< 1.2000			1.0500	5.0000	1.2000	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
2-Hexanone	591-78-6	< 0.7497			0.6560	10.0000	0.7497	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
4-Chlorotoluene	106-43-4	< 0.9611			0.8410	5.0000	0.9611	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
4-Isopropyltoluene	99-87-6	< 2.5371			2.2200	5.0000	2.5371	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.6343			1.4300	10.0000	1.6343	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Acetone	67-64-1	< 1.3029			1.1400	10.0000	1.3029	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Allyl chloride	107-05-1	< 2.7543			2.4100	5.0000	2.7543	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Benzene	71-43-2	< 0.6617			0.5790	5.0000	0.6617	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Bromobenzene	108-86-1	< 1.2229			1.0700	5.0000	1.2229	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Bromochloromethane	74-97-5	< 1.1086			0.9700	5.0000	1.1086	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Bromodichloromethane	75-27-4	< 1.0274			0.8990	5.0000	1.0274	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Bromoform	75-25-2	< 0.7509			0.6570	5.0000	0.7509	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Bromomethane	74-83-9	< 2.0114			1.7600	5.0000	2.0114	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Carbon disulfide	75-15-0	< 1.3143			1.1500	5.0000	1.3143	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Carbon tetrachloride	56-23-5	< 0.8331			0.7290	5.0000	0.8331	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B8-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-06A **Time Received:** 8:05

Sample Time: 14:43 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Chlorobenzene	108-90-7	< 1.1063			0.9680	5.0000	1.1063	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Chloroethane	75-00-3	< 1.9657			1.7200	5.0000	1.9657	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Chloroform	67-66-3	< 1.1543			1.0100	5.0000	1.1543	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Chloromethane	74-87-3	< 3.4857			3.0500	5.0000	3.4857	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.0446			0.9140	5.0000	1.0446	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.1543			1.0100	5.0000	1.1543	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Dibromochloromethane	124-48-1	< 0.9017			0.7890	5.0000	0.9017	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Dibromomethane	74-95-3	< 1.5314			1.3400	5.0000	1.5314	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Dichlorodifluoromethane	75-71-8	< 1.9200			1.6800	5.0000	1.9200	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Ethylbenzene	100-41-4	< 0.9131			0.7990	5.0000	0.9131	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Hexachlorobutadiene	87-68-3	< 2.1486			1.8800	5.0000	2.1486	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Iodomethane	74-88-4	< 1.1771			1.0300	5.0000	1.1771	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Isopropylbenzene	98-82-8	< 1.2000			1.0500	5.0000	1.2000	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
m,p-Xylene	179601-23-	< 1.1543			1.0100	10.0000	1.1543	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Methyl tert-butyl ether	1634-04-4	< 0.9223			0.8070	5.0000	0.9223	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Methylene chloride	75-09-2	< 2.2857			2.0000	5.0000	2.2857	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
n-Butylbenzene	104-51-8	< 0.8091			0.7080	5.0000	0.8091	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
n-Propylbenzene	103-65-1	< 1.1017			0.9640	5.0000	1.1017	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Naphthalene	91-20-3	< 0.9703			0.8490	15.0000	0.9703	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
o-Xylene	95-47-6	< 0.9234			0.8080	5.0000	0.9234	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
sec-Butylbenzene	135-98-8	< 1.5200			1.3300	5.0000	1.5200	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Styrene	100-42-5	< 0.9543			0.8350	5.0000	0.9543	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
tert-Butylbenzene	98-06-6	< 1.2000			1.0500	5.0000	1.2000	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Tetrachloroethene	127-18-4	< 0.8446			0.7390	5.0000	0.8446	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Toluene	108-88-3	< 0.7029			0.6150	5.0000	0.7029	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.0206			0.8930	5.0000	1.0206	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.2114			1.0600	10.0000	1.2114	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Trichloroethene	79-01-6	< 0.8354			0.7310	5.0000	0.8354	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Trichlorofluoromethane	75-69-4	< 1.9314			1.6900	5.0000	1.9314	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
Vinyl chloride	75-01-4	< 1.0514			0.9200	2.0000	1.0514	ug/Kg	9/15/2009 11:11:00 P	VOC1_090915B	1	VKG	9/15/2009 11:11:00 PM
SW8270C													
1,2-Diphenylhydrazine	122-66-7	< 10.5486			9.2300	33.3000	10.5486	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1520			0.1330	0.3300	0.1520	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 14.4000			12.6000	33.3000	14.4000	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B8-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-06A **Time Received:** 8:05

Sample Time: 14:43 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
1,2,4-Trichlorobenzene	120-82-1	< 0.0497			0.0435	0.3300	0.0497	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0717			0.0627	0.3300	0.0717	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 12.8000			11.2000	33.3000	12.8000	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0227			0.0199	0.3300	0.0227	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 23.8857			20.9000	66.7000	23.8857	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 20.8000			18.2000	66.7000	20.8000	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0798			0.0698	0.3300	0.0798	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0731			0.0640	0.3300	0.0731	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenylphenylether	101-55-3	< 10.2400			8.9600	33.3000	10.2400	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenylphenylether	7005-72-3	< 5.7714			5.0500	33.3000	5.7714	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.1943			0.1700	0.3300	0.1943	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 44.5714			39.0000	100.000	44.5714	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0221			0.0193	0.3300	0.0221	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 20.1143			17.6000	33.3000	20.1143	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0297			0.0260	0.3300	0.0297	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0475			0.0416	0.3300	0.0475	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 10.5829			9.2600	33.3000	10.5829	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0307			0.0269	0.3300	0.0307	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 13.8286			12.1000	33.3000	13.8286	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 15.0857			13.2000	33.3000	15.0857	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1257			0.1100	0.3300	0.1257	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 10.3771			9.0800	33.3000	10.3771	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0231			0.0202	0.3300	0.0231	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0475			0.0416	0.3300	0.0475	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 9.0171			7.8900	33.3000	9.0171	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 14.8571			13.0000	33.3000	14.8571	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0315			0.0276	0.3300	0.0315	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0382			0.0334	0.3300	0.0382	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 18.0571			15.8000	33.3000	18.0571	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0448			0.0392	0.3300	0.0448	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 11.5429			10.1000	33.3000	11.5429	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1600			0.1400	0.3300	0.1600	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 10.9600			9.5900	33.3000	10.9600	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0501			0.0438	0.3300	0.0501	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B8-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-06A **Time Received:** 8:05

Sample Time: 14:43 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Pentachlorophenol	87-86-5	< 48.0000			42.0000	100.000	48.0000	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0326			0.0285	0.3300	0.0326	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0330			0.0289	0.3300	0.0330	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0457			0.0400	0.3300	0.0457	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 0.1829			0.1600	0.3300	0.1829	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0806			0.0705	0.3300	0.0806	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1257			0.1100	0.3300	0.1257	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0378			0.0331	0.3300	0.0378	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0458			0.0401	0.3300	0.0458	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0479			0.0419	0.3300	0.0479	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0273			0.0239	0.3300	0.0273	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0599			0.0524	0.3300	0.0599	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1326			0.1160	0.3300	0.1326	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0673			0.0589	0.3300	0.0673	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1589			0.1390	0.3300	0.1589	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1383			0.1210	0.3300	0.1383	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1657			0.1450	0.3300	0.1657	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Aniline	62-53-3	< 0.2789			0.2440	0.6600	0.2789	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1257			0.1100	0.3300	0.1257	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 0.2857			0.2500	0.6600	0.2857	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0249			0.0218	0.3300	0.0249	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0643			0.0563	0.3300	0.0643	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0921			0.0806	0.3300	0.0921	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1257			0.1100	0.3300	0.1257	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0409			0.0358	0.3300	0.0409	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3246			0.2840	0.6600	0.3246	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1817			0.1590	0.6600	0.1817	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.1577			0.1380	0.3300	0.1577	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 14.464			12.800	100.00	14.464	ug/Kg	9/23/2009 3:50:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1680			0.1470	0.3300	0.1680	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1543			0.1350	0.3300	0.1543	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1566			0.1370	0.3300	0.1566	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1371			0.1200	0.3300	0.1371	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1440			0.1260	0.3300	0.1440	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B8-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-06A **Time Received:** 8:05

Sample Time: 14:43 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Di-n-octyl phthalate	117-84-0	< 0.1909			0.1670	0.3300	0.1909	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1429			0.1250	0.3300	0.1429	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Diethyl phthalate	84-66-2	< 0.1417			0.1240	0.3300	0.1417	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1463			0.1280	0.3300	0.1463	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.0991			0.0867	0.3300	0.0991	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1440			0.1260	0.3300	0.1440	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0857			0.0750	0.3300	0.0857	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1269			0.1110	0.3300	0.1269	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1406			0.1230	0.3300	0.1406	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1015			0.0888	0.3300	0.1015	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1101			0.0963	0.3300	0.1101	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1045			0.0914	0.3300	0.1045	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0743			0.0650	0.3300	0.0743	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0854			0.0747	0.3300	0.0854	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0831			0.0727	0.3300	0.0831	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1634			0.1430	0.3300	0.1634	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1657			0.1450	0.3300	0.1657	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.1440			0.1260	0.3300	0.1440	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1095			0.0958	0.3300	0.1095	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenol	108-95-2	< 0.1611			0.1410	0.3300	0.1611	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0914			0.0800	0.3300	0.0914	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1806			0.1580	0.3300	0.1806	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2743			0.2400	0.6600	0.2743	mg/Kg	9/21/2009 11:44:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 0.4229			0.3700	1.0000	0.4229	mg/Kg	9/10/2009	CN_R_TS-9/10/2009	1	SS	9/10/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B10-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-07A **Time Received:** 8:05

Sample Time: 15:13 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		28			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW6010B													
Aluminum	7429-90-5	20400.0000			0.4630	2.5000	0.6422	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Antimony	7440-36-0	< 0.7906			0.5700	2.5000	0.7906	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Arsenic	7440-38-2	< 0.9556			0.6890	1.5000	0.9556	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Barium	7440-39-3	183.0000			0.2100	1.0000	0.2913	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Beryllium	7440-41-7	0.7350			0.0440	0.5000	0.0610	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cadmium	7440-43-9	< 0.0971			0.0700	0.5000	0.0971	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Calcium	7440-70-2	653.0000			1.5000	5.0000	2.0804	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Chromium	7440-47-3	22.7000			0.2210	1.0000	0.3065	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cobalt	7440-48-4	4.5200			0.3700	1.0000	0.5132	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Copper	7440-50-8	3.9900			0.4470	1.5000	0.6200	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Iron	7439-89-6	24000.0000			0.9820	5.0000	1.3620	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Lead	7439-92-1	10.0000			0.4500	1.0000	0.6241	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Magnesium	7439-95-4	1700.0000			0.1860	1.0000	0.2580	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Manganese	7439-96-5	36.2000			5.3500	15.0000	7.4202	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Nickel	7440-02-0	9.6000			0.4790	1.0000	0.6644	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Potassium	7440-09-7	963.0000			4.7100	10.0000	6.5326	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Selenium	7782-49-2	< 1.3731			0.9900	2.0000	1.3731	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Silver	7440-22-4	< 0.6657			0.4800	1.0000	0.6657	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Sodium	7440-23-5	308.0000			0.7500	2.0000	1.0402	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Strontium	7440-24-6	< 0.5964			0.4300	1.0000	0.5964	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Thallium	7440-28-0	< 1.8816			1.4700	5.0000	1.8816	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Vanadium	7440-62-2	30.9000			0.7500	2.0000	1.0402	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Zinc	7440-66-6	33.3000			0.4300	1.0000	0.5964	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2913			0.2100	0.5000	0.2913	mg/kg	9/9/2009	CR6_S-9/9/2009	20	SS	9/9/2009
SW7471A													
Mercury	7439-97-6	< 0.0257			0.0185	0.0400	0.0257	mg/Kg	9/8/2009 7:15:00 PM	HG_R_S-09/8A/2009	1	DW	9/8/2009 2:00:00 PM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 1.1900			0.8580	5.0000	1.1900	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,1,1-Trichloroethane	71-55-6	< 1.6644			1.2000	5.0000	1.6644	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.7989			0.5760	5.0000	0.7989	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.3065			0.9420	5.0000	1.3065	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B10-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-07A **Time Received:** 8:05

Sample Time: 15:13 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1-Dichloroethane	74-34-3	< 1.2136			0.8750	5.0000	1.2136	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,1-Dichloroethene	75-35-4	< 1.4008			1.0100	5.0000	1.4008	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,1-Dichloropropene	563-58-6	< 0.9140			0.6590	5.0000	0.9140	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 1.1817			0.8520	5.0000	1.1817	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.4979			1.0800	5.0000	1.4979	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 3.4674			2.5000	5.0000	3.4674	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.8807			0.6350	5.0000	0.8807	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 2.0250			1.4600	5.0000	2.0250	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,2-Dibromoethane	106-93-4	< 1.0291			0.7420	5.0000	1.0291	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.8585			0.6190	5.0000	0.8585	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,2-Dichloroethane	107-06-2	< 0.9362			0.6750	5.0000	0.9362	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,2-Dichloropropane	78-87-5	< 1.1983			0.8640	5.0000	1.1983	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 1.0264			0.7400	5.0000	1.0264	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,3-Dichlorobenzene	541-73-1	< 1.0860			0.7830	5.0000	1.0860	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,3-Dichloropropane	142-28-9	< 0.8058			0.5810	5.0000	0.8058	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.8793			0.6340	5.0000	0.8793	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
1-Chlorohexane	544-10-5	< 0.5867			0.4230	5.0000	0.5867	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
2,2-Dichloropropane	590-20-7	< 1.1040			0.7960	5.0000	1.1040	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
2-Butanone	78-93-3	< 0.5853			0.4220	10.0000	0.5853	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
2-Chlorotoluene	95-49-8	< 1.4563			1.0500	5.0000	1.4563	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
2-Hexanone	591-78-6	< 0.9098			0.6560	10.0000	0.9098	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
4-Chlorotoluene	106-43-4	< 1.1664			0.8410	5.0000	1.1664	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
4-Isopropyltoluene	99-87-6	< 3.0791			2.2200	5.0000	3.0791	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.9834			1.4300	10.0000	1.9834	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Acetone	67-64-1	< 1.5811			1.1400	10.0000	1.5811	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Allyl chloride	107-05-1	< 3.3426			2.4100	5.0000	3.3426	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Benzene	71-43-2	< 0.8031			0.5790	5.0000	0.8031	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Bromobenzene	108-86-1	< 1.4840			1.0700	5.0000	1.4840	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Bromochloromethane	74-97-5	< 1.3454			0.9700	5.0000	1.3454	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Bromodichloromethane	75-27-4	< 1.2469			0.8990	5.0000	1.2469	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Bromoform	75-25-2	< 0.9112			0.6570	5.0000	0.9112	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Bromomethane	74-83-9	< 2.4411			1.7600	5.0000	2.4411	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Carbon disulfide	75-15-0	< 1.5950			1.1500	5.0000	1.5950	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Carbon tetrachloride	56-23-5	< 1.0111			0.7290	5.0000	1.0111	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B10-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-07A **Time Received:** 8:05

Sample Time: 15:13 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Chlorobenzene	108-90-7	< 1.3426			0.9680	5.0000	1.3426	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Chloroethane	75-00-3	< 2.3856			1.7200	5.0000	2.3856	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Chloroform	67-66-3	< 1.4008			1.0100	5.0000	1.4008	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Chloromethane	74-87-3	< 4.2302			3.0500	5.0000	4.2302	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.2677			0.9140	5.0000	1.2677	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.4008			1.0100	5.0000	1.4008	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Dibromochloromethane	124-48-1	< 1.0943			0.7890	5.0000	1.0943	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Dibromomethane	74-95-3	< 1.8585			1.3400	5.0000	1.8585	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Dichlorodifluoromethane	75-71-8	< 2.3301			1.6800	5.0000	2.3301	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Ethylbenzene	100-41-4	< 1.1082			0.7990	5.0000	1.1082	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Hexachlorobutadiene	87-68-3	< 2.6075			1.8800	5.0000	2.6075	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Iodomethane	74-88-4	< 1.4286			1.0300	5.0000	1.4286	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Isopropylbenzene	98-82-8	< 1.4563			1.0500	5.0000	1.4563	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
m,p-Xylene	179601-23-	< 1.4008			1.0100	10.0000	1.4008	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Methyl tert-butyl ether	1634-04-4	< 1.1193			0.8070	5.0000	1.1193	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Methylene chloride	75-09-2	< 2.7739			2.0000	5.0000	2.7739	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
n-Butylbenzene	104-51-8	< 0.9820			0.7080	5.0000	0.9820	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
n-Propylbenzene	103-65-1	< 1.3370			0.9640	5.0000	1.3370	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Naphthalene	91-20-3	< 1.1775			0.8490	15.0000	1.1775	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
o-Xylene	95-47-6	< 1.1207			0.8080	5.0000	1.1207	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
sec-Butylbenzene	135-98-8	< 1.8447			1.3300	5.0000	1.8447	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Styrene	100-42-5	< 1.1581			0.8350	5.0000	1.1581	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
tert-Butylbenzene	98-06-6	< 1.4563			1.0500	5.0000	1.4563	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Tetrachloroethene	127-18-4	< 1.0250			0.7390	5.0000	1.0250	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Toluene	108-88-3	< 0.8530			0.6150	5.0000	0.8530	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.2386			0.8930	5.0000	1.2386	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.4702			1.0600	10.0000	1.4702	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Trichloroethene	79-01-6	< 1.0139			0.7310	5.0000	1.0139	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Trichlorofluoromethane	75-69-4	< 2.3440			1.6900	5.0000	2.3440	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
Vinyl chloride	75-01-4	< 1.2760			0.9200	2.0000	1.2760	ug/Kg	9/15/2009 11:55:00 P	VOC1_090915B	1	VKG	9/15/2009 11:55:00 PM
SW8270C													
1,2-Diphenylhydrazine	122-66-7	< 12.8017			9.2300	33.3000	12.8017	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1845			0.1330	0.3300	0.1845	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 17.4757			12.6000	33.3000	17.4757	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B10-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-07A **Time Received:** 8:05

Sample Time: 15:13 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
1,2,4-Trichlorobenzene	120-82-1	< 0.0603			0.0435	0.3300	0.0603	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0870			0.0627	0.3300	0.0870	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 15.5340			11.2000	33.3000	15.5340	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0276			0.0199	0.3300	0.0276	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 28.9875			20.9000	66.7000	28.9875	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 25.2427			18.2000	66.7000	25.2427	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0968			0.0698	0.3300	0.0968	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0888			0.0640	0.3300	0.0888	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenylphenylether	101-55-3	< 12.4272			8.9600	33.3000	12.4272	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenylphenylether	7005-72-3	< 7.0042			5.0500	33.3000	7.0042	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.2358			0.1700	0.3300	0.2358	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 54.0915			39.0000	100.000	54.0915	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0268			0.0193	0.3300	0.0268	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 24.4105			17.6000	33.3000	24.4105	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0361			0.0260	0.3300	0.0361	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0577			0.0416	0.3300	0.0577	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 12.8433			9.2600	33.3000	12.8433	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0373			0.0269	0.3300	0.0373	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 16.7822			12.1000	33.3000	16.7822	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 18.3079			13.2000	33.3000	18.3079	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1526			0.1100	0.3300	0.1526	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 12.5936			9.0800	33.3000	12.5936	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0280			0.0202	0.3300	0.0280	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0577			0.0416	0.3300	0.0577	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 10.9431			7.8900	33.3000	10.9431	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 18.0305			13.0000	33.3000	18.0305	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0383			0.0276	0.3300	0.0383	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0463			0.0334	0.3300	0.0463	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 21.9140			15.8000	33.3000	21.9140	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0544			0.0392	0.3300	0.0544	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 14.0083			10.1000	33.3000	14.0083	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1942			0.1400	0.3300	0.1942	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 13.3010			9.5900	33.3000	13.3010	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0607			0.0438	0.3300	0.0607	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B10-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-07A **Time Received:** 8:05

Sample Time: 15:13 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Pentachlorophenol	87-86-5	< 58.2524			42.0000	100.000	58.2524	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0395			0.0285	0.3300	0.0395	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0401			0.0289	0.3300	0.0401	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0555			0.0400	0.3300	0.0555	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 0.2219			0.1600	0.3300	0.2219	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0978			0.0705	0.3300	0.0978	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1526			0.1100	0.3300	0.1526	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0459			0.0331	0.3300	0.0459	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0556			0.0401	0.3300	0.0556	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0581			0.0419	0.3300	0.0581	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0331			0.0239	0.3300	0.0331	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0727			0.0524	0.3300	0.0727	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1609			0.1160	0.3300	0.1609	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0817			0.0589	0.3300	0.0817	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1928			0.1390	0.3300	0.1928	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1678			0.1210	0.3300	0.1678	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.2011			0.1450	0.3300	0.2011	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Aniline	62-53-3	< 0.3384			0.2440	0.6600	0.3384	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1526			0.1100	0.3300	0.1526	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 0.3467			0.2500	0.6600	0.3467	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0302			0.0218	0.3300	0.0302	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0781			0.0563	0.3300	0.0781	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.1118			0.0806	0.3300	0.1118	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1526			0.1100	0.3300	0.1526	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0497			0.0358	0.3300	0.0497	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3939			0.2840	0.6600	0.3939	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.2205			0.1590	0.6600	0.2205	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.1914			0.1380	0.3300	0.1914	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 16.384			12.800	100.00	16.384	ug/Kg	9/23/2009 4:27:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.2039			0.1470	0.3300	0.2039	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1872			0.1350	0.3300	0.1872	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1900			0.1370	0.3300	0.1900	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1664			0.1200	0.3300	0.1664	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1748			0.1260	0.3300	0.1748	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B10-1 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-07A **Time Received:** 8:05

Sample Time: 15:13 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Di-n-octyl phthalate	117-84-0	< 0.2316			0.1670	0.3300	0.2316	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1734			0.1250	0.3300	0.1734	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Diethyl phthalate	84-66-2	< 0.1720			0.1240	0.3300	0.1720	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1775			0.1280	0.3300	0.1775	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.1202			0.0867	0.3300	0.1202	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1748			0.1260	0.3300	0.1748	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.1040			0.0750	0.3300	0.1040	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1540			0.1110	0.3300	0.1540	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1706			0.1230	0.3300	0.1706	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1232			0.0888	0.3300	0.1232	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1336			0.0963	0.3300	0.1336	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1268			0.0914	0.3300	0.1268	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0902			0.0650	0.3300	0.0902	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.1036			0.0747	0.3300	0.1036	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.1008			0.0727	0.3300	0.1008	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1983			0.1430	0.3300	0.1983	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.2011			0.1450	0.3300	0.2011	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.1748			0.1260	0.3300	0.1748	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1329			0.0958	0.3300	0.1329	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenol	108-95-2	< 0.1956			0.1410	0.3300	0.1956	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyrene	129-00-0	< 0.1110			0.0800	0.3300	0.1110	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyridine	110-86-1	< 0.2191			0.1580	0.3300	0.2191	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.3329			0.2400	0.6600	0.3329	mg/Kg	9/21/2009 10:22:00 P	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 0.5132			0.3700	1.0000	0.5132	mg/Kg	9/10/2009	CN_R_TS-9/10/2009	1	SS	9/10/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B10-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-08A **Time Received:** 8:05

Sample Time: 15:44 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		15			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW6010B													
Aluminum	7429-90-5	13000.0000			0.4630	2.5000	0.5466	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Antimony	7440-36-0	< 0.6730			0.5700	2.5000	0.6730	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Arsenic	7440-38-2	< 0.8135			0.6890	1.5000	0.8135	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Barium	7440-39-3	37.3000			0.2100	1.0000	0.2479	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Beryllium	7440-41-7	0.4600		J	0.0440	0.5000	0.0519	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cadmium	7440-43-9	< 0.0826			0.0700	0.5000	0.0826	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Calcium	7440-70-2	1180.0000			1.5000	5.0000	1.7710	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Chromium	7440-47-3	9.1300			0.2210	1.0000	0.2609	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Cobalt	7440-48-4	20.8000			0.3700	1.0000	0.4368	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Copper	7440-50-8	2.6200			0.4470	1.5000	0.5277	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Iron	7439-89-6	7570.0000			0.9820	5.0000	1.1594	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Lead	7439-92-1	10.3000			0.4500	1.0000	0.5313	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Magnesium	7439-95-4	1290.0000			0.1860	1.0000	0.2196	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Manganese	7439-96-5	464.0000			5.3500	15.0000	6.3164	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Nickel	7440-02-0	7.3400			0.4790	1.0000	0.5655	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Potassium	7440-09-7	720.0000			4.7100	10.0000	5.5608	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Selenium	7782-49-2	< 1.1688			0.9900	2.0000	1.1688	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Silver	7440-22-4	< 0.5667			0.4800	1.0000	0.5667	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Sodium	7440-23-5	639.0000			0.7500	2.0000	0.8855	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Strontium	7440-24-6	< 0.5077			0.4300	1.0000	0.5077	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Thallium	7440-28-0	< 1.6905			1.4700	5.0000	1.6905	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Vanadium	7440-62-2	8.7700			0.7500	2.0000	0.8855	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
Zinc	7440-66-6	19.6000			0.4300	1.0000	0.5077	mg/Kg	9/8/2009 5:00:00 PM	TAL_S-9/4/2009	1	JOL	9/5/2009
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2479			0.2100	0.5000	0.2479	mg/kg	9/9/2009	CR6_S-9/9/2009	20	SS	9/9/2009
SW7471A													
Mercury	7439-97-6	< 0.0218			0.0185	0.0400	0.0218	mg/Kg	9/8/2009 7:15:00 PM	HG_R_S-09/8A/2009	1	DW	9/8/2009 2:00:00 PM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 1.0130			0.8580	5.0000	1.0130	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,1,1-Trichloroethane	71-55-6	< 1.4168			1.2000	5.0000	1.4168	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.6800			0.5760	5.0000	0.6800	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,1,2-Trichloroethane	79-00-5	< 1.1122			0.9420	5.0000	1.1122	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B10-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-08A **Time Received:** 8:05

Sample Time: 15:44 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1-Dichloroethane	74-34-3	< 1.0331			0.8750	5.0000	1.0331	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,1-Dichloroethene	75-35-4	< 1.1924			1.0100	5.0000	1.1924	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,1-Dichloropropene	563-58-6	< 0.7780			0.6590	5.0000	0.7780	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,2,3-Trichlorobenzene	87-61-6	< 1.0059			0.8520	5.0000	1.0059	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,2,3-Trichloropropane	96-18-4	< 1.2751			1.0800	5.0000	1.2751	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,2,4-Trichlorobenzene	120-82-1	< 2.9516			2.5000	5.0000	2.9516	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,2,4-Trimethylbenzene	95-63-6	< 0.7497			0.6350	5.0000	0.7497	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.7237			1.4600	5.0000	1.7237	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,2-Dibromoethane	106-93-4	< 0.8760			0.7420	5.0000	0.8760	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.7308			0.6190	5.0000	0.7308	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,2-Dichloroethane	107-06-2	< 0.7969			0.6750	5.0000	0.7969	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,2-Dichloropropane	78-87-5	< 1.0201			0.8640	5.0000	1.0201	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,3,5-Trimethylbenzene	108-67-8	< 0.8737			0.7400	5.0000	0.8737	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.9244			0.7830	5.0000	0.9244	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,3-Dichloropropane	142-28-9	< 0.6860			0.5810	5.0000	0.6860	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.7485			0.6340	5.0000	0.7485	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
1-Chlorohexane	544-10-5	< 0.4994			0.4230	5.0000	0.4994	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
2,2-Dichloropropane	590-20-7	< 0.9398			0.7960	5.0000	0.9398	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
2-Butanone	78-93-3	< 0.4982			0.4220	10.0000	0.4982	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
2-Chlorotoluene	95-49-8	< 1.2397			1.0500	5.0000	1.2397	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
2-Hexanone	591-78-6	< 0.7745			0.6560	10.0000	0.7745	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
4-Chlorotoluene	106-43-4	< 0.9929			0.8410	5.0000	0.9929	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
4-Isopropyltoluene	99-87-6	< 2.6210			2.2200	5.0000	2.6210	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
4-Methyl-2-pentanone	108-10-1	< 1.6883			1.4300	10.0000	1.6883	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Acetone	67-64-1	< 1.3459			1.1400	10.0000	1.3459	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Allyl chloride	107-05-1	< 2.8453			2.4100	5.0000	2.8453	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Benzene	71-43-2	< 0.6836			0.5790	5.0000	0.6836	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Bromobenzene	108-86-1	< 1.2633			1.0700	5.0000	1.2633	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Bromochloromethane	74-97-5	< 1.1452			0.9700	5.0000	1.1452	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Bromodichloromethane	75-27-4	< 1.0614			0.8990	5.0000	1.0614	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Bromoform	75-25-2	< 0.7757			0.6570	5.0000	0.7757	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Bromomethane	74-83-9	< 2.0779			1.7600	5.0000	2.0779	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Carbon disulfide	75-15-0	< 1.3577			1.1500	5.0000	1.3577	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Carbon tetrachloride	56-23-5	< 0.8607			0.7290	5.0000	0.8607	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B10-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-08A **Time Received:** 8:05

Sample Time: 15:44 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Chlorobenzene	108-90-7	< 1.1429			0.9680	5.0000	1.1429	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Chloroethane	75-00-3	< 2.0307			1.7200	5.0000	2.0307	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Chloroform	67-66-3	< 1.1924			1.0100	5.0000	1.1924	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Chloromethane	74-87-3	< 3.6009			3.0500	5.0000	3.6009	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
cis-1,2-Dichloroethene	156-59-2	< 1.0791			0.9140	5.0000	1.0791	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
cis-1,3-Dichloropropene	10061-01-5	< 1.1924			1.0100	5.0000	1.1924	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Dibromochloromethane	124-48-1	< 0.9315			0.7890	5.0000	0.9315	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Dibromomethane	74-95-3	< 1.5821			1.3400	5.0000	1.5821	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Dichlorodifluoromethane	75-71-8	< 1.9835			1.6800	5.0000	1.9835	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Ethylbenzene	100-41-4	< 0.9433			0.7990	5.0000	0.9433	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Hexachlorobutadiene	87-68-3	< 2.2196			1.8800	5.0000	2.2196	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Iodomethane	74-88-4	< 1.2161			1.0300	5.0000	1.2161	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Isopropylbenzene	98-82-8	< 1.2397			1.0500	5.0000	1.2397	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
m,p-Xylene	179601-23-	< 1.1924			1.0100	10.0000	1.1924	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Methyl tert-butyl ether	1634-04-4	< 0.9528			0.8070	5.0000	0.9528	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Methylene chloride	75-09-2	< 2.3613			2.0000	5.0000	2.3613	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
n-Butylbenzene	104-51-8	< 0.8359			0.7080	5.0000	0.8359	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
n-Propylbenzene	103-65-1	< 1.1381			0.9640	5.0000	1.1381	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Naphthalene	91-20-3	< 1.0024			0.8490	15.0000	1.0024	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
o-Xylene	95-47-6	< 0.9540			0.8080	5.0000	0.9540	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
sec-Butylbenzene	135-98-8	< 1.5702			1.3300	5.0000	1.5702	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Styrene	100-42-5	< 0.9858			0.8350	5.0000	0.9858	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
tert-Butylbenzene	98-06-6	< 1.2397			1.0500	5.0000	1.2397	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Tetrachloroethene	127-18-4	< 0.8725			0.7390	5.0000	0.8725	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Toluene	108-88-3	< 0.7261			0.6150	5.0000	0.7261	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
trans-1,2-Dichloroethene	156-60-5	< 1.0543			0.8930	5.0000	1.0543	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
trans-1,3-Dichloropropene	10061-02-9	< 1.2515			1.0600	10.0000	1.2515	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Trichloroethene	79-01-6	< 0.8630			0.7310	5.0000	0.8630	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Trichlorofluoromethane	75-69-4	< 1.9953			1.6900	5.0000	1.9953	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
Vinyl chloride	75-01-4	< 1.0862			0.9200	2.0000	1.0862	ug/Kg	9/16/2009 12:39:00 A	VOC1_090915B	1	VKG	9/16/2009 12:39:00 AM
SW8270C													
1,2-Diphenylhydrazine	122-66-7	< 10.8973			9.2300	33.3000	10.8973	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1570			0.1330	0.3300	0.1570	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 14.8760			12.6000	33.3000	14.8760	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B10-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-08A **Time Received:** 8:05

Sample Time: 15:44 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
1,2,4-Trichlorobenzene	120-82-1	< 0.0514			0.0435	0.3300	0.0514	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0740			0.0627	0.3300	0.0740	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 13.2231			11.2000	33.3000	13.2231	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0235			0.0199	0.3300	0.0235	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 24.6753			20.9000	66.7000	24.6753	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 21.4876			18.2000	66.7000	21.4876	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0824			0.0698	0.3300	0.0824	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0756			0.0640	0.3300	0.0756	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenylphenylether	101-55-3	< 10.5785			8.9600	33.3000	10.5785	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenylphenylether	7005-72-3	< 5.9622			5.0500	33.3000	5.9622	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.2007			0.1700	0.3300	0.2007	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 46.0449			39.0000	100.000	46.0449	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0228			0.0193	0.3300	0.0228	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 20.7792			17.6000	33.3000	20.7792	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0307			0.0260	0.3300	0.0307	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0491			0.0416	0.3300	0.0491	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 10.9327			9.2600	33.3000	10.9327	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0318			0.0269	0.3300	0.0318	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 14.2857			12.1000	33.3000	14.2857	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 15.5844			13.2000	33.3000	15.5844	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1299			0.1100	0.3300	0.1299	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 10.7202			9.0800	33.3000	10.7202	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0238			0.0202	0.3300	0.0238	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0491			0.0416	0.3300	0.0491	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 9.3152			7.8900	33.3000	9.3152	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 15.3483			13.0000	33.3000	15.3483	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0326			0.0276	0.3300	0.0326	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0394			0.0334	0.3300	0.0394	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 18.6541			15.8000	33.3000	18.6541	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0463			0.0392	0.3300	0.0463	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 11.9244			10.1000	33.3000	11.9244	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1653			0.1400	0.3300	0.1653	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 11.3223			9.5900	33.3000	11.3223	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0517			0.0438	0.3300	0.0517	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B10-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-08A **Time Received:** 8:05

Sample Time: 15:44 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Pentachlorophenol	87-86-5	< 49.5868			42.0000	100.000	49.5868	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0336			0.0285	0.3300	0.0336	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0341			0.0289	0.3300	0.0341	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0472			0.0400	0.3300	0.0472	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3,3´-Dichlorobenzidine	91-94-1	< 0.1889			0.1600	0.3300	0.1889	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0832			0.0705	0.3300	0.0832	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1299			0.1100	0.3300	0.1299	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0391			0.0331	0.3300	0.0391	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0473			0.0401	0.3300	0.0473	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0495			0.0419	0.3300	0.0495	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0282			0.0239	0.3300	0.0282	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0619			0.0524	0.3300	0.0619	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1370			0.1160	0.3300	0.1370	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0695			0.0589	0.3300	0.0695	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1641			0.1390	0.3300	0.1641	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1429			0.1210	0.3300	0.1429	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1712			0.1450	0.3300	0.1712	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Aniline	62-53-3	< 0.2881			0.2440	0.6600	0.2881	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1299			0.1100	0.3300	0.1299	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzidine	92-87-5	< 0.2952			0.2500	0.6600	0.2952	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0257			0.0218	0.3300	0.0257	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0665			0.0563	0.3300	0.0665	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0952			0.0806	0.3300	0.0952	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1299			0.1100	0.3300	0.1299	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0423			0.0358	0.3300	0.0423	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3353			0.2840	0.6600	0.3353	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1877			0.1590	0.6600	0.1877	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.1629			0.1380	0.3300	0.1629	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 14.720			12.800	100.00	14.720	ug/Kg	9/23/2009 5:04:00 A	SVOC1_090922A	1	SLF	9/9/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1736			0.1470	0.3300	0.1736	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1594			0.1350	0.3300	0.1594	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1617			0.1370	0.3300	0.1617	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1417			0.1200	0.3300	0.1417	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1488			0.1260	0.3300	0.1488	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B10-2 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: 9/2/2009 **Alamo Lab ID:** 0909018-08A **Time Received:** 8:05

Sample Time: 15:44 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Di-n-octyl phthalate	117-84-0	< 0.1972			0.1670	0.3300	0.1972	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1476			0.1250	0.3300	0.1476	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Diethyl phthalate	84-66-2	< 0.1464			0.1240	0.3300	0.1464	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1511			0.1280	0.3300	0.1511	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.1024			0.0867	0.3300	0.1024	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1488			0.1260	0.3300	0.1488	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0885			0.0750	0.3300	0.0885	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1311			0.1110	0.3300	0.1311	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1452			0.1230	0.3300	0.1452	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1048			0.0888	0.3300	0.1048	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1137			0.0963	0.3300	0.1137	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1079			0.0914	0.3300	0.1079	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0767			0.0650	0.3300	0.0767	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0882			0.0747	0.3300	0.0882	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0858			0.0727	0.3300	0.0858	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1688			0.1430	0.3300	0.1688	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1712			0.1450	0.3300	0.1712	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.1488			0.1260	0.3300	0.1488	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1131			0.0958	0.3300	0.1131	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Phenol	108-95-2	< 0.1665			0.1410	0.3300	0.1665	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0945			0.0800	0.3300	0.0945	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1865			0.1580	0.3300	0.1865	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2834			0.2400	0.6600	0.2834	mg/Kg	9/22/2009 1:50:00 A	SVOC1_090921B	1	SLF	9/9/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 0.4368			0.3700	1.0000	0.4368	mg/Kg	9/10/2009	CN_R_TS-9/10/2009	1	SS	9/10/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B8-3 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: **Alamo Lab ID:** 0909018-09A **Time Received:** 8:05

Sample Time: **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		19			0.0000	0.1000	0.0000	wt%	9/10/2009	PMOIST-9/10/2009	1	SS	9/9/2009
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 1.0632			0.8580	5.0000	1.0632	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,1,1-Trichloroethane	71-55-6	< 1.4870			1.2000	5.0000	1.4870	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.7138			0.5760	5.0000	0.7138	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,1,2-Trichloroethane	79-00-5	< 1.1673			0.9420	5.0000	1.1673	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,1-Dichloroethane	74-34-3	< 1.0843			0.8750	5.0000	1.0843	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,1-Dichloroethene	75-35-4	< 1.2515			1.0100	5.0000	1.2515	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,1-Dichloropropene	563-58-6	< 0.8166			0.6590	5.0000	0.8166	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,2,3-Trichlorobenzene	87-61-6	< 1.0558			0.8520	5.0000	1.0558	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,2,3-Trichloropropane	96-18-4	< 1.3383			1.0800	5.0000	1.3383	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,2,4-Trichlorobenzene	120-82-1	< 3.0979			2.5000	5.0000	3.0979	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,2,4-Trimethylbenzene	95-63-6	< 0.7869			0.6350	5.0000	0.7869	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.8092			1.4600	5.0000	1.8092	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,2-Dibromoethane	106-93-4	< 0.9195			0.7420	5.0000	0.9195	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.7670			0.6190	5.0000	0.7670	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,2-Dichloroethane	107-06-2	< 0.8364			0.6750	5.0000	0.8364	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,2-Dichloropropane	78-87-5	< 1.0706			0.8640	5.0000	1.0706	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,3,5-Trimethylbenzene	108-67-8	< 0.9170			0.7400	5.0000	0.9170	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.9703			0.7830	5.0000	0.9703	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,3-Dichloropropane	142-28-9	< 0.7200			0.5810	5.0000	0.7200	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.7856			0.6340	5.0000	0.7856	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
1-Chlorohexane	544-10-5	< 0.5242			0.4230	5.0000	0.5242	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
2,2-Dichloropropane	590-20-7	< 0.9864			0.7960	5.0000	0.9864	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
2-Butanone	78-93-3	< 0.5229			0.4220	10.0000	0.5229	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
2-Chlorotoluene	95-49-8	< 1.3011			1.0500	5.0000	1.3011	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
2-Hexanone	591-78-6	< 0.8129			0.6560	10.0000	0.8129	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
4-Chlorotoluene	106-43-4	< 1.0421			0.8410	5.0000	1.0421	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
4-Isopropyltoluene	99-87-6	< 2.7509			2.2200	5.0000	2.7509	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
4-Methyl-2-pentanone	108-10-1	< 1.7720			1.4300	10.0000	1.7720	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Acetone	67-64-1	< 1.4126			1.1400	10.0000	1.4126	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Allyl chloride	107-05-1	< 2.9864			2.4100	5.0000	2.9864	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Benzene	71-43-2	< 0.7175			0.5790	5.0000	0.7175	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Bromobenzene	108-86-1	< 1.3259			1.0700	5.0000	1.3259	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B8-3 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: **Alamo Lab ID:** 0909018-09A **Time Received:** 8:05

Sample Time: **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Bromochloromethane	74-97-5	< 1.2020			0.9700	5.0000	1.2020	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Bromodichloromethane	75-27-4	< 1.1140			0.8990	5.0000	1.1140	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Bromoform	75-25-2	< 0.8141			0.6570	5.0000	0.8141	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Bromomethane	74-83-9	< 2.1809			1.7600	5.0000	2.1809	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Carbon disulfide	75-15-0	< 1.4250			1.1500	5.0000	1.4250	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Carbon tetrachloride	56-23-5	< 0.9033			0.7290	5.0000	0.9033	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Chlorobenzene	108-90-7	< 1.1995			0.9680	5.0000	1.1995	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Chloroethane	75-00-3	< 2.1314			1.7200	5.0000	2.1314	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Chloroform	67-66-3	< 1.2515			1.0100	5.0000	1.2515	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Chloromethane	74-87-3	< 3.7794			3.0500	5.0000	3.7794	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
cis-1,2-Dichloroethene	156-59-2	< 1.1326			0.9140	5.0000	1.1326	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
cis-1,3-Dichloropropene	10061-01-5	< 1.2515			1.0100	5.0000	1.2515	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Dibromochloromethane	124-48-1	< 0.9777			0.7890	5.0000	0.9777	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Dibromomethane	74-95-3	< 1.6605			1.3400	5.0000	1.6605	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Dichlorodifluoromethane	75-71-8	< 2.0818			1.6800	5.0000	2.0818	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Ethylbenzene	100-41-4	< 0.9901			0.7990	5.0000	0.9901	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Hexachlorobutadiene	87-68-3	< 2.3296			1.8800	5.0000	2.3296	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Iodomethane	74-88-4	< 1.2763			1.0300	5.0000	1.2763	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Isopropylbenzene	98-82-8	< 1.3011			1.0500	5.0000	1.3011	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
m,p-Xylene	179601-23-	< 1.2515			1.0100	10.0000	1.2515	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Methyl tert-butyl ether	1634-04-4	< 1.0000			0.8070	5.0000	1.0000	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Methylene chloride	75-09-2	< 2.4783			2.0000	5.0000	2.4783	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
n-Butylbenzene	104-51-8	< 0.8773			0.7080	5.0000	0.8773	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
n-Propylbenzene	103-65-1	< 1.1945			0.9640	5.0000	1.1945	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Naphthalene	91-20-3	< 1.0520			0.8490	15.0000	1.0520	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
o-Xylene	95-47-6	< 1.0012			0.8080	5.0000	1.0012	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
sec-Butylbenzene	135-98-8	< 1.6481			1.3300	5.0000	1.6481	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Styrene	100-42-5	< 1.0347			0.8350	5.0000	1.0347	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
tert-Butylbenzene	98-06-6	< 1.3011			1.0500	5.0000	1.3011	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Tetrachloroethene	127-18-4	< 0.9157			0.7390	5.0000	0.9157	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Toluene	108-88-3	< 0.7621			0.6150	5.0000	0.7621	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
trans-1,2-Dichloroethene	156-60-5	< 1.1066			0.8930	5.0000	1.1066	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
trans-1,3-Dichloropropene	10061-02-9	< 1.3135			1.0600	10.0000	1.3135	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Trichloroethene	79-01-6	< 0.9058			0.7310	5.0000	0.9058	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909018 **Report Date:** Date: 9/29/2009

ClientSampID: B8-3 **Sample Matrix:** Soil **Date Received:** 9/4/2009

Sample Date: **Alamo Lab ID:** 0909018-09A **Time Received:** 8:05

Sample Time: **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Trichlorofluoromethane	75-69-4	< 2.0942			1.6900	5.0000	2.0942	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM
Vinyl chloride	75-01-4	< 1.1400			0.9200	2.0000	1.1400	ug/Kg	9/16/2009 1:22:00 A	VOC1_090915B	1	VKG	9/16/2009 1:22:00 AM

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: D2216 **Units.....:** wt% **Analyst...:** SS

Method Description..: PERCENT MOISTURE **Batch.....:** PMOIST-9/10/2009 **RunID:** BAL1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
DUP		0909007-13ADUP	1	9/10/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Percent Moisture	22.1000	23.1000				%	0 - 0	
					RPD = 4.4		RPDLimit = 15	

Test Method.....: D2216 **Units.....:** wt% **Analyst...:** SS

Method Description..: PERCENT MOISTURE **Batch.....:** PMOIST-9/10/2009 **RunID:** BAL1_090909A

QC Type	Description	Lab ID	Dilution Factor	Date Time
DUP		0909018-05ADUP	1	9/10/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Percent Moisture	14.8000	14.9000				%	0 - 0	
					RPD = 0.7		RPDLimit = 15	

Test Method.....: SW9010A **Units.....:** mg/Kg **Analyst...:** SS

Method Description..: CYANIDE, TOTAL **Batch.....:** CN_R_TS-9/10/2009 **RunID:** CN_090910A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	BLK	1	9/10/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Cyanide	< .3700						-	

Test Method.....: SW9010A **Units.....:** mg/Kg **Analyst...:** SS

Method Description..: CYANIDE, TOTAL **Batch.....:** CN_R_TS-9/10/2009 **RunID:** CN_090910A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	LCS	1	9/10/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Cyanide	0.0470		0.0500		94	%	80 - 120	

Test Method.....: SW9010A **Units.....:** mg/Kg **Analyst...:** SS

Method Description..: CYANIDE, TOTAL **Batch.....:** CN_R_TS-9/10/2009 **RunID:** CN_090910A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0909018-06AMS	1	9/10/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Cyanide	0.0510		0.0500		102	%	80 - 120	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW9010A **Units.....:** mg/Kg **Analyst...:** SS

Method Description..: CYANIDE, TOTAL **Batch.....:** CN_R_TS-9/10/2009 **RunID:** CN_090910A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSD	Matrix Spike Duplicate	0909018-06AMSD	1	9/10/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Cyanide	0.0520	0.0510	0.0500		104	%	80 - 120	
					RPD = 1.9		RPDLimit = 30	

Test Method.....: SW7471A **Units.....:** mg/Kg **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_S-09/8A/2009 **RunID:** HG_090908F

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK08B	1	9/8/2009 7:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	< .0185						-	

Test Method.....: SW7471A **Units.....:** mg/Kg **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_S-09/8A/2009 **RunID:** HG_090908F

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	09LC08B	1	9/8/2009 7:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	0.4480		0.5000		90	%	77 - 120	

Test Method.....: SW7471A **Units.....:** mg/Kg **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_S-09/8A/2009 **RunID:** HG_090908F

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0909018-03AMS	1	9/8/2009 7:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	0.4770		0.5000		95	%	77 - 120	

Test Method.....: SW7471A **Units.....:** mg/Kg **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_S-09/8A/2009 **RunID:** HG_090908F

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSD	Matrix Spike Duplicate	0909018-03AMSD	1	9/8/2009 7:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	0.4720	0.4770	0.5000		94	%	77 - 120	
					RPD = 1.1		RPDLimit = 25	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW6010B **Units.....:** mg/Kg **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_S-9/4/2009 **RunID:** ICP_090908B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	BLK	1	9/8/2009 5:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	< .4630						-	
Antimony	< .5700						-	
Arsenic	< .6890						-	
Barium	< .2100						-	
Beryllium	< .0440						-	
Cadmium	< .0700						-	
Calcium	< 1.5000						-	
Chromium	< .2210						-	
Cobalt	< .3700						-	
Copper	< .4470						-	
Iron	< .9820						-	
Lead	< .4500						-	
Magnesium	< .1860						-	
Manganese	< 5.3500						-	
Nickel	< .4790						-	
Potassium	< 4.7100						-	
Selenium	< .9900						-	
Silver	< .4800						-	
Sodium	< .7500						-	
Thallium	< 1.4700						-	
Vanadium	< .7500						-	
Zinc	< .4300						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW6010B **Units.....:** mg/Kg **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_S-9/4/2009 **RunID:** ICP_090908B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	LCS	1	9/8/2009 5:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	51.0000		50.0000		102	%	80 - 120	
Antimony	45.2000		50.0000		90	%	80 - 120	
Arsenic	51.5000		50.0000		103	%	80 - 120	
Barium	51.3000		50.0000		103	%	80 - 120	
Beryllium	50.2000		50.0000		100	%	80 - 120	
Cadmium	52.0000		50.0000		104	%	80 - 120	
Calcium	523.0000		500.0000		105	%	80 - 120	
Chromium	52.9000		50.0000		106	%	80 - 120	
Cobalt	52.1000		50.0000		104	%	80 - 120	
Copper	53.5000		50.0000		107	%	80 - 120	
Iron	44.8000		50.0000		90	%	80 - 120	
Lead	49.0000		50.0000		98	%	80 - 120	
Magnesium	505.0000		500.0000		101	%	80 - 120	
Manganese	53.1000		50.0000		106	%	80 - 120	
Nickel	49.3000		50.0000		99	%	80 - 120	
Potassium	554.0000		500.0000		111	%	80 - 120	
Selenium	52.8000		50.0000		106	%	80 - 120	
Silver	47.4000		50.0000		95	%	80 - 120	
Sodium	546.0000		500.0000		109	%	80 - 120	
Thallium	46.9000		50.0000		94	%	80 - 120	
Vanadium	45.7000		50.0000		91	%	80 - 120	
Zinc	46.9000		50.0000		94	%	80 - 120	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW6010B **Units.....:** mg/Kg **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_S-9/4/2009 **RunID:** ICP_090908B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCSD	Laboratory Control Sample Duplicate	LCSD	1	9/8/2009 5:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	51.2000	51.0000	50.0000		102	%	80 - 120	
					RPD = 0.4		RPDLimit = 25	
Antimony	47.1000	45.2000	50.0000		94	%	80 - 120	
					RPD = 4.1		RPDLimit = 25	
Arsenic	50.5000	51.5000	50.0000		101	%	80 - 120	
					RPD = 2.0		RPDLimit = 25	
Barium	51.4000	51.3000	50.0000		103	%	80 - 120	
					RPD = 0.2		RPDLimit = 25	
Beryllium	50.2000	50.2000	50.0000		100	%	80 - 120	
					RPD = 0.0		RPDLimit = 25	
Cadmium	51.9000	52.0000	50.0000		104	%	80 - 120	
					RPD = 0.2		RPDLimit = 25	
Calcium	506.0000	523.0000	500.0000		101	%	80 - 120	
					RPD = 3.3		RPDLimit = 25	
Chromium	52.4000	52.9000	50.0000		105	%	80 - 120	
					RPD = 0.9		RPDLimit = 25	
Cobalt	52.8000	52.1000	50.0000		106	%	80 - 120	
					RPD = 1.3		RPDLimit = 25	
Copper	52.0000	53.5000	50.0000		104	%	80 - 120	
					RPD = 2.8		RPDLimit = 25	
Iron	48.3000	44.8000	50.0000		97	%	80 - 120	
					RPD = 7.5		RPDLimit = 25	
Lead	50.0000	49.0000	50.0000		100	%	80 - 120	
					RPD = 2.0		RPDLimit = 25	
Magnesium	507.0000	505.0000	500.0000		101	%	80 - 120	
					RPD = 0.4		RPDLimit = 25	
Manganese	53.4000	53.1000	50.0000		107	%	80 - 120	
					RPD = 0.6		RPDLimit = 25	
Nickel	49.1000	49.3000	50.0000		98	%	80 - 120	
					RPD = 0.4		RPDLimit = 25	
Potassium	435.0000	554.0000	500.0000		87	%	80 - 120	
					RPD = 24.1		RPDLimit = 25	
Selenium	54.4000	52.8000	50.0000		109	%	80 - 120	
					RPD = 3.0		RPDLimit = 25	
Silver	47.0000	47.4000	50.0000		94	%	80 - 120	
					RPD = 0.8		RPDLimit = 25	
Sodium	538.0000	546.0000	500.0000		108	%	80 - 120	
					RPD = 1.5		RPDLimit = 25	
Thallium	47.1000	46.9000	50.0000		94	%	80 - 120	
					RPD = 0.4		RPDLimit = 25	
Vanadium	44.9000	45.7000	50.0000		90	%	80 - 120	
					RPD = 1.8		RPDLimit = 25	
Zinc	49.0000	46.9000	50.0000		98	%	80 - 120	
					RPD = 4.4		RPDLimit = 25	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW6010B **Units.....:** mg/Kg **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_S-9/4/2009 **RunID:** ICP_090908B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0909018-03AMS	1	9/8/2009 5:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	42400.0000		50.0000	19000.0000	46800	%	75 - 125	ES
Antimony	49.1000		50.0000	3.8500	91	%	75 - 125	
Arsenic	51.8000		50.0000		104	%	75 - 125	
Barium	187.0000		50.0000	127.0000	120	%	75 - 125	
Beryllium	53.2000		50.0000	0.7030	105	%	75 - 125	
Cadmium	55.4000		50.0000		111	%	75 - 125	
Calcium	7010.0000		500.0000	1130.0000	1176	%	75 - 125	ES
Chromium	80.2000		50.0000	19.0000	122	%	75 - 125	
Cobalt	58.3000		50.0000	6.0100	105	%	75 - 125	
Copper	58.8000		50.0000	7.1300	103	%	75 - 125	
Iron	24400.0000		50.0000	15900.0000	17000	%	75 - 125	ES
Lead	64.5000		50.0000	11.4000	106	%	75 - 125	
Magnesium	8410.0000		500.0000	1760.0000	1330	%	75 - 125	ES
Manganese	98.6000		50.0000	34.1000	129	%	75 - 125	S
Nickel	59.7000		50.0000	8.7600	102	%	75 - 125	
Potassium	7690.0000		500.0000	1170.0000	1304	%	75 - 125	ES
Selenium	56.1000		50.0000		112	%	75 - 125	
Silver	49.9000		50.0000		100	%	75 - 125	
Sodium	5820.0000		500.0000	102.0000	1144	%	75 - 125	ES
Thallium	101.0000		50.0000		202	%	75 - 125	S
Vanadium	70.7000		50.0000	24.9000	92	%	75 - 125	
Zinc	87.0000		50.0000	28.3000	117	%	75 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW6010B **Units.....:** mg/Kg **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_S-9/4/2009 **RunID:** ICP_090908B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSD	Matrix Spike Duplicate	0909018-03AMSD	1	9/8/2009 5:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	31600.0000	42400.0000	50.0000	19000.0000	25200	%	75 - 125	ES
					RPD = 29.2		RPDLimit = 25	
Antimony	51.6000	49.1000	50.0000	3.8500	96	%	75 - 125	
					RPD = 5.0		RPDLimit = 25	
Arsenic	52.9000	51.8000	50.0000		106	%	75 - 125	
					RPD = 2.1		RPDLimit = 25	
Barium	189.0000	187.0000	50.0000	127.0000	124	%	75 - 125	
					RPD = 1.1		RPDLimit = 25	
Beryllium	52.1000	53.2000	50.0000	0.7030	103	%	75 - 125	
					RPD = 2.1		RPDLimit = 25	
Cadmium	55.3000	55.4000	50.0000		111	%	75 - 125	
					RPD = 0.2		RPDLimit = 25	
Calcium	7150.0000	7010.0000	500.0000	1130.0000	1204	%	75 - 125	ES
					RPD = 2.0		RPDLimit = 25	
Chromium	78.3000	80.2000	50.0000	19.0000	119	%	75 - 125	
					RPD = 2.4		RPDLimit = 25	
Cobalt	58.4000	58.3000	50.0000	6.0100	105	%	75 - 125	
					RPD = 0.2		RPDLimit = 25	
Copper	58.3000	58.8000	50.0000	7.1300	102	%	75 - 125	
					RPD = 0.9		RPDLimit = 25	
Iron	18100.0000	24400.0000	50.0000	15900.0000	4400	%	75 - 125	ES
					RPD = 29.6		RPDLimit = 25	
Lead	65.1000	64.5000	50.0000	11.4000	107	%	75 - 125	
					RPD = 0.9		RPDLimit = 25	
Magnesium	8390.0000	8410.0000	500.0000	1760.0000	1326	%	75 - 125	ES
					RPD = 0.2		RPDLimit = 25	
Manganese	99.0000	98.6000	50.0000	34.1000	130	%	75 - 125	S
					RPD = 0.4		RPDLimit = 25	
Nickel	60.0000	59.7000	50.0000	8.7600	102	%	75 - 125	
					RPD = 0.5		RPDLimit = 25	
Potassium	7040.0000	7690.0000	500.0000	1170.0000	1174	%	75 - 125	ES
					RPD = 8.8		RPDLimit = 25	
Selenium	55.4000	56.1000	50.0000		111	%	75 - 125	
					RPD = 1.3		RPDLimit = 25	
Silver	49.9000	49.9000	50.0000		100	%	75 - 125	
					RPD = 0.0		RPDLimit = 25	
Sodium	5780.0000	5820.0000	500.0000	102.0000	1136	%	75 - 125	ES
					RPD = 0.7		RPDLimit = 25	
Thallium	104.0000	101.0000	50.0000		208	%	75 - 125	S
					RPD = 2.9		RPDLimit = 25	
Vanadium	72.1000	70.7000	50.0000	24.9000	94	%	75 - 125	
					RPD = 2.0		RPDLimit = 25	
Zinc	88.7000	87.0000	50.0000	28.3000	121	%	75 - 125	
					RPD = 1.9		RPDLimit = 25	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK09A	1	9/21/2009 12:02:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	< .1330						-	
1,2,4-Trichlorobenzene	< .0435						-	
1,2-Dichlorobenzene	< .0627						-	
1,2-Diphenylhydrazine	< .0199						-	
1,3-Dichlorobenzene	< .0698						-	
1,4-Dichlorobenzene	< .0640						-	
2,3,4,6-Tetrachlorophenol	< .1700						-	
2,4,5-Trichlorophenol	< .0193						-	
2,4,6-Trichlorophenol	< .0260						-	
2,4-Dichlorophenol	< .0416						-	
2,4-Dimethylphenol	< .0269						-	
2,4-Dinitrophenol	< .1100						-	
2,4-Dinitrotoluene	< .0202						-	
2,6-Dichlorophenol	< .0416						-	
2,6-Dinitrotoluene	< .0276						-	
2-Chloronaphthalene	< .0334						-	
2-Chlorophenol	< .0392						-	
2-Methylnaphthalene	< .1400						-	
2-Methylphenol	< .0438						-	
2-Naphthylamine	< .0285						-	
2-Nitroaniline	< .0289						-	
2-Nitrophenol	< .0400						-	
3,3´-Dichlorobenzidine	< .1600						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK09A	1	9/21/2009 12:02:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
3-Nitroaniline	< .0705						-	
4,6-Dinitro-2-methylphenol	< .1100						-	
4-Bromophenyl phenyl ether	< .0331						-	
4-Chloro-3-methylphenol	< .0401						-	
4-Chloroaniline	< .0419						-	
4-Chlorophenyl phenyl ether	< .0239						-	
4-Methylphenol	< .0524						-	
4-Nitroaniline	< .1160						-	
4-Nitrophenol	< .0589						-	
Acenaphthene	< .1390						-	
Acenaphthylene	< .1210						-	
Acetophenone	< .1450						-	
Aniline	< .2440						-	
Anthracene	< .1100						-	
Benzidine	< .2500						-	
Benzo(a)anthracene	< .0218						-	
Benzo(a)pyrene	< .0563						-	
Benzo(b)fluoranthene	< .0806						-	
Benzo(g,h,i)perylene	< .1100						-	
Benzo(k)fluoranthene	< .0358						-	
Benzoic acid	< .2840						-	
Benzyl alcohol	< .1590						-	
Bis(2-chloroethoxy)methane	< .1380						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK09A	1	9/21/2009 12:02:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Bis(2-chloroethyl)ether	< .1440						-	
Bis(2-chloroisopropyl)ether	< .1470						-	
Bis(2-ethylhexyl)phthalate	< .1350						-	
Butyl benzyl phthalate	< .1370						-	
Chrysene	< .1200						-	
Di-n-butyl phthalate	< .1260						-	
Di-n-octyl phthalate	< .1670						-	
Dibenz(a,h)anthracene	< .0924						-	
Dibenzofuran	< .1250						-	
Diethyl phthalate	< .1240						-	
Dimethyl phthalate	< .1280						-	
Fluoranthene	< .0867						-	
Fluorene	< .1260						-	
Hexachlorobenzene	< .0750						-	
Hexachlorobutadiene	< .1110						-	
Hexachlorocyclopentadiene	< .1230						-	
Hexachloroethane	< .0888						-	
Indeno(1,2,3-cd)pyrene	< .0963						-	
Isophorone	< .0914						-	
N-Nitrosodi-n-propylamine	< .0650						-	
N-Nitrosodimethylamine	< .0747						-	
N-Nitrosodiphenylamine	< .0727						-	
Naphthalene	< .1430						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK09A	1	9/21/2009 12:02:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Nitrobenzene	< .1450						-	
Pentachlorophenol	< .1260						-	
Phenanthrene	< .0958						-	
Phenol	< .1410						-	
Pyrene	< .0800						-	
Pyridine	< .1580						-	
3-Methylphenol	< .2400						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS09A	1	9/21/2009 12:42:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	1.6000		1.6700		96	%	46 - 135	
1,2,4-Trichlorobenzene	1.7900		1.6700		107	%	44 - 125	
1,2-Dichlorobenzene	1.8700		1.6700		112	%	45 - 125	
1,2-Diphenylhydrazine	1.5200		1.6700		91	%	39 - 135	
1,3-Dichlorobenzene	1.5100		1.6700		90	%	39 - 125	
1,4-Dichlorobenzene	1.6500		1.6700		99	%	35 - 125	
2,3,4,6-Tetrachlorophenol	1.3600		1.6700		81	%	26 - 139	
2,4,5-Trichlorophenol	1.3400		1.6700		80	%	49 - 125	
2,4,6-Trichlorophenol	1.3200		1.6700		79	%	43 - 125	
2,4-Dichlorophenol	1.4900		1.6700		89	%	45 - 125	
2,4-Dimethylphenol	0.6930		1.6700		41	%	32 - 125	
2,4-Dinitrophenol	1.8400		1.6700		110	%	25 - 132	
2,4-Dinitrotoluene	2.0100		1.6700		120	%	48 - 125	
2,6-Dichlorophenol	1.4200		1.6700		85	%	46 - 130	
2,6-Dinitrotoluene	1.5200		1.6700		91	%	48 - 125	
2-Chloronaphthalene	1.5500		1.6700		93	%	45 - 125	
2-Chlorophenol	1.2200		1.6700		73	%	44 - 125	
2-Methylnaphthalene	1.9600		1.6700		117	%	47 - 125	
2-Methylphenol	1.3100		1.6700		78	%	40 - 125	
2-Naphthylamine	1.8600		1.6700		111	%	32 - 135	
2-Nitroaniline	1.2200		1.6700		73	%	44 - 125	
2-Nitrophenol	1.0100		1.6700		60	%	42 - 125	
3,3´-Dichlorobenzidine	1.0700		1.6700		64	%	25 - 128	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS09A	1	9/21/2009 12:42:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
3-Nitroaniline	0.6500		1.6700		39	%	27 - 125	
4,6-Dinitro-2-methylphenol	1.2600		1.6700		75	%	29 - 137	
4-Bromophenyl phenyl ether	1.1900		1.6700		71	%	46 - 125	
4-Chloro-3-methylphenol	1.5500		1.6700		93	%	46 - 125	
4-Chloroaniline	0.6420		1.6700		38	%	25 - 125	
4-Chlorophenyl phenyl ether	1.7000		1.6700		102	%	47 - 125	
4-Methylphenol	1.5800		1.6700		95	%	41 - 125	
4-Nitroaniline	1.1300		1.6700		68	%	34 - 125	
4-Nitrophenol	1.3800		1.6700		83	%	25 - 138	
Acenaphthene	1.6600		1.6700		99	%	46 - 125	
Acenaphthylene	1.5600		1.6700		93	%	44 - 125	
Acetophenone	2.0200		1.6700		121	%	39 - 131	
Aniline	0.9400		1.6700		56	%	29 - 132	
Anthracene	1.6800		1.6700		101	%	53 - 125	
Benzidine	1.5800		1.6700		95	%	15 - 245	
Benzo(a)anthracene	1.6000		1.6700		96	%	52 - 125	
Benzo(a)pyrene	1.6200		1.6700		97	%	50 - 125	
Benzo(b)fluoranthene	1.8100		1.6700		108	%	45 - 125	
Benzo(g,h,i)perylene	1.2500		1.6700		75	%	38 - 126	
Benzo(k)fluoranthene	1.8300		1.6700		110	%	45 - 125	
Benzoic acid	0.8190		1.6700		49	%	25 - 125	
Benzyl alcohol	1.0200		1.6700		61	%	25 - 125	
Bis(2-chloroethoxy)methane	0.9610		1.6700		58	%	43 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS09A	1	9/21/2009 12:42:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Bis(2-chloroethyl)ether	1.0900		1.6700		65	%	38 - 125	
Bis(2-chloroisopropyl)ether	1.5600		1.6700		93	%	25 - 125	
Bis(2-ethylhexyl)phthalate	1.0600		1.6700		63	%	47 - 127	
Butyl benzyl phthalate	1.1000		1.6700		66	%	49 - 125	
Chrysene	1.6500		1.6700		99	%	53 - 125	
Di-n-butyl phthalate	1.3600		1.6700		81	%	56 - 125	
Di-n-octyl phthalate	1.4600		1.6700		87	%	41 - 132	
Dibenz(a,h)anthracene	1.2500		1.6700		75	%	41 - 125	
Dibenzofuran	1.8100		1.6700		108	%	51 - 125	
Diethyl phthalate	1.6400		1.6700		98	%	50 - 125	
Dimethyl phthalate	1.4700		1.6700		88	%	49 - 125	
Fluoranthene	1.8400		1.6700		110	%	54 - 125	
Fluorene	2.0000		1.6700		120	%	49 - 125	
Hexachlorobenzene	1.4100		1.6700		84	%	47 - 125	
Hexachlorobutadiene	2.1100		1.6700		126	%	40 - 135	
Hexachlorocyclopentadiene	1.8600		1.6700		111	%	36 - 135	
Hexachloroethane	2.1700		1.6700		130	%	34 - 135	
Indeno(1,2,3-cd)pyrene	1.2800		1.6700		77	%	38 - 125	
Isophorone	0.7440		1.6700		45	%	43 - 125	
N-Nitrosodi-n-propylamine	1.5000		1.6700		90	%	40 - 125	
N-Nitrosodimethylamine	1.0200		1.6700		61	%	33 - 135	
N-Nitrosodiphenylamine	0.6000		1.6700		36	%	49 - 125	S
Naphthalene	1.6100		1.6700		96	%	40 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS09A	1	9/21/2009 12:42:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Nitrobenzene	0.8490		1.6700		51	%	41 - 125	
Pentachlorophenol	1.6400		1.6700		98	%	25 - 125	
Phenanthrene	1.6900		1.6700		101	%	50 - 125	
Phenol	1.1400		1.6700		68	%	39 - 125	
Pyrene	1.6200		1.6700		97	%	46 - 125	
Pyridine	1.1500		1.6700		69	%	29 - 139	
3-Methylphenol	1.5500		1.6700		93	%	37 - 135	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909018-03AMS	1	9/22/2009 12:33:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	1.6600		1.6700		99	%	46 - 135	
1,2,4-Trichlorobenzene	1.7100		1.6700		102	%	44 - 125	
1,2-Dichlorobenzene	1.7700		1.6700		106	%	45 - 125	
1,2-Diphenylhydrazine	1.1900		1.6700		71	%	39 - 135	
1,3-Dichlorobenzene	1.4300		1.6700		86	%	39 - 125	
1,4-Dichlorobenzene	1.5800		1.6700		95	%	35 - 125	
2,3,4,6-Tetrachlorophenol	1.4100		1.6700		84	%	26 - 139	
2,4,5-Trichlorophenol	1.3100		1.6700		78	%	49 - 125	
2,4,6-Trichlorophenol	1.2700		1.6700		76	%	43 - 125	
2,4-Dichlorophenol	1.2200		1.6700		73	%	45 - 125	
2,4-Dimethylphenol	0.5630		1.6700		34	%	32 - 125	
2,4-Dinitrophenol	1.6900		1.6700		101	%	25 - 132	
2,4-Dinitrotoluene	2.1500		1.6700		129	%	48 - 125	S
2,6-Dichlorophenol	1.2900		1.6700		77	%	46 - 130	
2,6-Dinitrotoluene	1.6300		1.6700		98	%	48 - 125	
2-Chloronaphthalene	1.6800		1.6700		101	%	45 - 125	
2-Chlorophenol	1.1100		1.6700		66	%	44 - 125	
2-Methylnaphthalene	2.1600		1.6700		129	%	47 - 125	S
2-Methylphenol	1.1800		1.6700		71	%	40 - 125	
2-Naphthylamine	1.9100		1.6700		114	%	32 - 135	
2-Nitroaniline	0.9790		1.6700		59	%	44 - 125	
2-Nitrophenol	0.9150		1.6700		55	%	42 - 125	
3,3´-Dichlorobenzidine	1.0800		1.6700		65	%	25 - 128	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909018-03AMS	1	9/22/2009 12:33:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
3-Nitroaniline	0.7240		1.6700		43	%	27 - 125	
4,6-Dinitro-2-methylphenol	1.2800		1.6700		77	%	29 - 137	
4-Bromophenyl phenyl ether	1.3300		1.6700		80	%	46 - 125	
4-Chloro-3-methylphenol	1.2700		1.6700		76	%	46 - 125	
4-Chloroaniline	1.1900		1.6700		71	%	25 - 125	
4-Chlorophenyl phenyl ether	1.9800		1.6700		119	%	47 - 125	
4-Methylphenol	1.4100		1.6700		84	%	41 - 125	
4-Nitroaniline	0.9250		1.6700		55	%	34 - 125	
4-Nitrophenol	1.0400		1.6700		62	%	25 - 138	
Acenaphthene	1.5600		1.6700		93	%	46 - 125	
Acenaphthylene	1.4700		1.6700		88	%	44 - 125	
Acetophenone	2.0200		1.6700		121	%	39 - 131	
Aniline	1.0300		1.6700		62	%	29 - 132	
Anthracene	1.4800		1.6700		89	%	53 - 125	
Benzidine	0.6290		1.6700		38	%	15 - 245	
Benzo(a)anthracene	1.3000		1.6700		78	%	52 - 125	
Benzo(a)pyrene	1.4800		1.6700		89	%	50 - 125	
Benzo(b)fluoranthene	1.8400		1.6700		110	%	45 - 125	
Benzo(g,h,i)perylene	1.3900		1.6700		83	%	38 - 126	
Benzo(k)fluoranthene	1.9100		1.6700		114	%	45 - 125	
Benzoic acid	0.8860		1.6700		53	%	25 - 125	
Benzyl alcohol	1.5200		1.6700		91	%	25 - 125	
Bis(2-chloroethoxy)methane	0.9890		1.6700		59	%	43 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909018-03AMS	1	9/22/2009 12:33:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Bis(2-chloroethyl)ether	1.0300		1.6700		62	%	38 - 125	
Bis(2-chloroisopropyl)ether	1.4900		1.6700		89	%	25 - 125	
Bis(2-ethylhexyl)phthalate	1.1100		1.6700		66	%	47 - 127	
Butyl benzyl phthalate	0.7180		1.6700		43	%	49 - 125	S
Chrysene	1.4700		1.6700		88	%	53 - 125	
Di-n-butyl phthalate	1.1700		1.6700		70	%	56 - 125	
Di-n-octyl phthalate	1.3300		1.6700		80	%	41 - 132	
Dibenz(a,h)anthracene	1.4700		1.6700		88	%	41 - 125	
Dibenzofuran	2.0900		1.6700		125	%	51 - 125	
Diethyl phthalate	1.3400		1.6700		80	%	50 - 125	
Dimethyl phthalate	1.3400		1.6700		80	%	49 - 125	
Fluoranthene	1.8100		1.6700		108	%	54 - 125	
Fluorene	2.1200		1.6700		127	%	49 - 125	S
Hexachlorobenzene	1.4700		1.6700		88	%	47 - 125	
Hexachlorobutadiene	2.2700		1.6700		136	%	40 - 125	
Hexachlorocyclopentadiene	2.0200		1.6700		121	%	36 - 135	
Hexachloroethane	2.3400		1.6700		140	%	34 - 125	
Indeno(1,2,3-cd)pyrene	1.4400		1.6700		86	%	38 - 125	
Isophorone	0.6470		1.6700		39	%	43 - 125	S
N-Nitrosodi-n-propylamine	1.5200		1.6700		91	%	40 - 125	
N-Nitrosodimethylamine	1.2500		1.6700		75	%	33 - 135	
N-Nitrosodiphenylamine	0.7080		1.6700		42	%	49 - 125	S
Naphthalene	1.6100		1.6700		96	%	40 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909018-03AMS	1	9/22/2009 12:33:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Nitrobenzene	1.0200		1.6700		61	%	41 - 125	
Pentachlorophenol	1.5600		1.6700		93	%	25 - 125	
Phenanthrene	1.6200		1.6700		97	%	50 - 125	
Phenol	1.1600		1.6700		69	%	39 - 125	
Pyrene	1.1300		1.6700		68	%	46 - 125	
Pyridine	1.2300		1.6700		74	%	29 - 139	
3-Methylphenol	1.4000		1.6700		84	%	22 - 148	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909018-03AMSD	1	9/22/2009 1:11:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	1.8900	1.6600	1.6700		113	%	46 - 135	
					RPD = 13.0		RPDLimit = 30	
1,2,4-Trichlorobenzene	2.0300	1.7100	1.6700		122	%	44 - 125	
					RPD = 17.1		RPDLimit = 30	
1,2-Dichlorobenzene	1.8700	1.7700	1.6700		112	%	45 - 125	
					RPD = 5.5		RPDLimit = 30	
1,2-Diphenylhydrazine	1.0900	1.1900	1.6700		65	%	39 - 135	
					RPD = 8.8		RPDLimit = 30	
1,3-Dichlorobenzene	1.4800	1.4300	1.6700		89	%	39 - 125	
					RPD = 3.4		RPDLimit = 30	
1,4-Dichlorobenzene	1.6400	1.5800	1.6700		98	%	35 - 125	
					RPD = 3.7		RPDLimit = 30	
2,3,4,6-Tetrachlorophenol	1.2000	1.4100	1.6700		72	%	26 - 139	
					RPD = 16.1		RPDLimit = 30	
2,4,5-Trichlorophenol	1.3000	1.3100	1.6700		78	%	49 - 125	
					RPD = 0.8		RPDLimit = 30	
2,4,6-Trichlorophenol	1.3000	1.2700	1.6700		78	%	43 - 125	
					RPD = 2.3		RPDLimit = 30	
2,4-Dichlorophenol	1.3800	1.2200	1.6700		83	%	45 - 125	
					RPD = 12.3		RPDLimit = 30	
2,4-Dimethylphenol	0.5920	0.5630	1.6700		35	%	32 - 125	
					RPD = 5.0		RPDLimit = 30	
2,4-Dinitrophenol	1.5700	1.6900	1.6700		94	%	25 - 132	
					RPD = 7.4		RPDLimit = 30	
2,4-Dinitrotoluene	2.4000	2.1500	1.6700		144	%	48 - 125	S
					RPD = 11.0		RPDLimit = 30	
2,6-Dichlorophenol	1.4700	1.2900	1.6700		88	%	46 - 130	
					RPD = 13.0		RPDLimit = 30	
2,6-Dinitrotoluene	1.6200	1.6300	1.6700		97	%	48 - 125	
					RPD = 0.6		RPDLimit = 30	
2-Chloronaphthalene	1.6400	1.6800	1.6700		98	%	45 - 125	
					RPD = 2.4		RPDLimit = 30	
2-Chlorophenol	1.0500	1.1100	1.6700		63	%	44 - 125	
					RPD = 5.6		RPDLimit = 30	
2-Methylnaphthalene	2.5600	2.1600	1.6700		153	%	47 - 125	S
					RPD = 16.9		RPDLimit = 30	
2-Methylphenol	1.1700	1.1800	1.6700		70	%	40 - 125	
					RPD = 0.9		RPDLimit = 30	
2-Naphthylamine	1.4500	1.9100	1.6700		87	%	32 - 135	
					RPD = 27.4		RPDLimit = 30	
2-Nitroaniline	1.1300	0.9790	1.6700		68	%	44 - 125	
					RPD = 14.3		RPDLimit = 30	
2-Nitrophenol	0.9180	0.9150	1.6700		55	%	42 - 125	
					RPD = 0.3		RPDLimit = 30	
3,3´-Dichlorobenzidine	0.9900	1.0800	1.6700		59	%	25 - 128	
					RPD = 8.7		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909018-03AMSD	1	9/22/2009 1:11:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
3-Nitroaniline	0.8870	0.7240	1.6700		53	%	27 - 125	
					RPD = 20.2		RPDLimit = 30	
4,6-Dinitro-2-methylphenol	1.3200	1.2800	1.6700		79	%	29 - 137	
					RPD = 3.1		RPDLimit = 30	
4-Bromophenyl phenyl ether	1.4400	1.3300	1.6700		86	%	46 - 125	
					RPD = 7.9		RPDLimit = 30	
4-Chloro-3-methylphenol	1.3700	1.2700	1.6700		82	%	46 - 125	
					RPD = 7.6		RPDLimit = 30	
4-Chloroaniline	1.9000	1.1900	1.6700		114	%	25 - 125	
					RPD = 46.0		RPDLimit = 30	
4-Chlorophenyl phenyl ether	2.1700	1.9800	1.6700		130	%	47 - 125	S
					RPD = 9.2		RPDLimit = 30	
4-Methylphenol	2.0000	1.4100	1.6700		120	%	41 - 125	
					RPD = 34.6		RPDLimit = 30	
4-Nitroaniline	1.1900	0.9250	1.6700		71	%	34 - 125	
					RPD = 25.1		RPDLimit = 30	
4-Nitrophenol	0.8670	1.0400	1.6700		52	%	25 - 138	
					RPD = 18.1		RPDLimit = 30	
Acenaphthene	1.6300	1.5600	1.6700		98	%	46 - 125	
					RPD = 4.4		RPDLimit = 30	
Acenaphthylene	1.5900	1.4700	1.6700		95	%	44 - 125	
					RPD = 7.8		RPDLimit = 30	
Acetophenone	2.1700	2.0200	1.6700		130	%	39 - 131	
					RPD = 7.2		RPDLimit = 30	
Aniline	1.4200	1.0300	1.6700		85	%	29 - 132	
					RPD = 31.8		RPDLimit = 30	
Anthracene	1.7200	1.4800	1.6700		103	%	53 - 125	
					RPD = 15.0		RPDLimit = 30	
Benzidine	0.7100	0.6290	1.6700		43	%	15 - 245	
					RPD = 12.1		RPDLimit = 30	
Benzo(a)anthracene	1.5700	1.3000	1.6700		94	%	52 - 125	
					RPD = 18.8		RPDLimit = 30	
Benzo(a)pyrene	1.7700	1.4800	1.6700		106	%	50 - 125	
					RPD = 17.8		RPDLimit = 30	
Benzo(b)fluoranthene	1.9500	1.8400	1.6700		117	%	45 - 125	
					RPD = 5.8		RPDLimit = 30	
Benzo(g,h,i)perylene	2.0400	1.3900	1.6700		122	%	38 - 126	
					RPD = 37.9		RPDLimit = 30	
Benzo(k)fluoranthene	1.9500	1.9100	1.6700		117	%	45 - 125	
					RPD = 2.1		RPDLimit = 30	
Benzoic acid	0.9490	0.8860	1.6700		57	%	25 - 125	
					RPD = 6.9		RPDLimit = 30	
Benzyl alcohol	1.0200	1.5200	1.6700		61	%	25 - 125	
					RPD = 39.4		RPDLimit = 30	
Bis(2-chloroethoxy)methane	1.1300	0.9890	1.6700		68	%	43 - 125	
					RPD = 13.3		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909018-03AMSD	1	9/22/2009 1:11:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Bis(2-chloroethyl)ether	1.1500	1.0300	1.6700		69	%	38 - 125	
					RPD = 11.0		RPDLimit = 30	
Bis(2-chloroisopropyl)ether	1.6400	1.4900	1.6700		98	%	25 - 125	
					RPD = 9.6		RPDLimit = 30	
Bis(2-ethylhexyl)phthalate	0.8940	1.1100	1.6700		54	%	47 - 127	
					RPD = 21.6		RPDLimit = 30	
Butyl benzyl phthalate	0.4900	0.7180	1.6700		29	%	49 - 125	S
					RPD = 37.7		RPDLimit = 30	
Chrysene	1.6300	1.4700	1.6700		98	%	53 - 125	
					RPD = 10.3		RPDLimit = 30	
Di-n-butyl phthalate	1.1900	1.1700	1.6700		71	%	56 - 125	
					RPD = 1.7		RPDLimit = 30	
Di-n-octyl phthalate	0.9020	1.3300	1.6700		54	%	41 - 132	
					RPD = 38.4		RPDLimit = 30	
Dibenz(a,h)anthracene	2.2300	1.4700	1.6700		134	%	41 - 125	S
					RPD = 41.1		RPDLimit = 30	
Dibenzofuran	2.7100	2.0900	1.6700		162	%	51 - 125	S
					RPD = 25.8		RPDLimit = 30	
Diethyl phthalate	1.4300	1.3400	1.6700		86	%	50 - 125	
					RPD = 6.5		RPDLimit = 30	
Dimethyl phthalate	1.4300	1.3400	1.6700		86	%	49 - 125	
					RPD = 6.5		RPDLimit = 30	
Fluoranthene	2.6200	1.8100	1.6700		157	%	54 - 125	S
					RPD = 36.6		RPDLimit = 30	
Fluorene	2.4900	2.1200	1.6700		149	%	49 - 125	S
					RPD = 16.1		RPDLimit = 30	
Hexachlorobenzene	1.9000	1.4700	1.6700		114	%	47 - 125	
					RPD = 25.5		RPDLimit = 30	
Hexachlorobutadiene	2.0400	2.2700	1.6700		122	%	40 - 125	
					RPD = 10.7		RPDLimit = 30	
Hexachlorocyclopentadiene	2.1300	2.0200	1.6700		128	%	36 - 135	
					RPD = 5.3		RPDLimit = 30	
Hexachloroethane	2.0100	2.3400	1.6700		120	%	34 - 125	
					RPD = 15.2		RPDLimit = 30	
Indeno(1,2,3-cd)pyrene	2.0400	1.4400	1.6700		122	%	38 - 125	
					RPD = 34.5		RPDLimit = 30	
Isophorone	0.7700	0.6470	1.6700		46	%	43 - 125	
					RPD = 17.4		RPDLimit = 30	
N-Nitrosodi-n-propylamine	1.9200	1.5200	1.6700		115	%	40 - 125	
					RPD = 23.3		RPDLimit = 30	
N-Nitrosodimethylamine	0.8600	1.2500	1.6700		51	%	33 - 135	
					RPD = 37.0		RPDLimit = 30	
N-Nitrosodiphenylamine	0.6080	0.7080	1.6700		36	%	49 - 125	S
					RPD = 15.2		RPDLimit = 30	
Naphthalene	1.8000	1.6100	1.6700		108	%	40 - 125	
					RPD = 11.1		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921B **RunID:** SVOC1_090921B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909018-03AMSD	1	9/22/2009 1:11:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Nitrobenzene	1.2200	1.0200	1.6700		73	%	41 - 125	
					RPD = 17.9		RPDLimit = 30	
Pentachlorophenol	1.7900	1.5600	1.6700		107	%	25 - 125	
					RPD = 13.7		RPDLimit = 30	
Phenanthrene	1.6200	1.6200	1.6700		97	%	50 - 125	
					RPD = 0.0		RPDLimit = 30	
Phenol	1.2000	1.1600	1.6700		72	%	39 - 125	
					RPD = 3.4		RPDLimit = 30	
Pyrene	0.9640	1.1300	1.6700		58	%	46 - 125	
					RPD = 15.9		RPDLimit = 30	
Pyridine	1.0600	1.2300	1.6700		63	%	29 - 139	
					RPD = 14.8		RPDLimit = 30	
3-Methylphenol	1.8700	1.4000	1.6700		112	%	22 - 145	
					RPD = 28.7		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/Kg **Analyst...:** SLF

Method Description..: Semivolatiles SIM **Batch.....:** SVOC1_090922A **RunID:** SVOC1_090922A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK09A	1	9/22/2009 3:04:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2-Diphenylhydrazine	< 9.2300						-	
2,4-Dinitrotoluene	< 12.6000						-	
2,6-Dinitrotoluene	< 11.2000						-	
2-Naphthylamine	< 20.9000						-	
3,3´-Dichlorobenzidine	< 18.2000						-	
4-Bromophenylphenylether	< 8.9600						-	
4-Chlorophenylphenylether	< 5.0500						-	
Benzidine	< 39.0000						-	
Benzo(a)anthracene	< 17.6000						-	
Benzo(a)pyrene	< 9.2600						-	
Benzo(b)fluoranthene	< 12.1000						-	
Benzo(k)fluoranthene	< 13.2000						-	
Bis(2-chloroethoxy)methane	< 9.0800						-	
Dibenz(a,h)anthracene	< 7.8900						-	
Hexachlorobenzene	< 13.0000						-	
Indeno(1,2,3-cd)pyrene	< 15.8000						-	
N-Nitrosodi-n-propylamine	< 10.1000						-	
N-Nitrosodimethylamine	< 9.5900						-	
Pentachlorophenol	< 42.0000						-	
Bis(2-chloroethyl)ether	< 12.800						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW7196A **Units.....:** mg/kg **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_S-9/9/2009 **RunID:** UV1_090909B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	BLK	20	9/9/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	< .2100						-	

Test Method.....: SW7196A **Units.....:** mg/kg **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_S-9/9/2009 **RunID:** UV1_090909B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	LCS	20	9/9/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	1.0000		1.0000		100	%	80 - 120	

Test Method.....: SW7196A **Units.....:** mg/kg **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_S-9/9/2009 **RunID:** UV1_090909B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0909018-08AMS	20	9/9/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	1.0000		1.0000		100	%	80 - 120	

Test Method.....: SW7196A **Units.....:** mg/kg **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_S-9/9/2009 **RunID:** UV1_090909B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSD	Matrix Spike Duplicate	0909018-08AMSD	20	9/9/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	0.9000	1.0000	1.0000		90	%	80 - 120	

RPD = 10.5 RPDLimit = 30

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090915B **RunID:** VOC1_090915B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK15B	1	9/15/2009 6:06:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	< .8580						-	
1,1,1-Trichloroethane	< 1.2000						-	
1,1,2,2-Tetrachloroethane	< .5760						-	
1,1,2-Trichloroethane	< .9420						-	
1,1-Dichloroethane	< .8750						-	
1,1-Dichloroethene	< 1.0100						-	
1,1-Dichloropropene	< .6590						-	
1,2,3-Trichlorobenzene	< .8520						-	
1,2,3-Trichloropropane	< 1.0800						-	
1,2,4-Trichlorobenzene	< 2.5000						-	
1,2,4-Trimethylbenzene	< .6350						-	
1,2-Dibromo-3-chloropropane	< 1.4600						-	
1,2-Dibromoethane	< .7420						-	
1,2-Dichlorobenzene	< .6190						-	
1,2-Dichloroethane	< .6750						-	
1,2-Dichloropropane	< .8640						-	
1,3,5-Trimethylbenzene	< .7400						-	
1,3-Dichlorobenzene	< .7830						-	
1,3-Dichloropropane	< .5810						-	
1,4-Dichlorobenzene	< .6340						-	
1-Chlorohexane	< .4230						-	
2,2-Dichloropropane	< .7960						-	
2-Butanone	< .4220						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090915B **RunID:** VOC1_090915B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK15B	1	9/15/2009 6:06:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Chlorotoluene	< 1.0500						-	
2-Hexanone	< .6560						-	
4-Chlorotoluene	< .8410						-	
4-Isopropyltoluene	< 2.2200						-	
4-Methyl-2-pentanone	< 1.4300						-	
Acetone	< 1.1400						-	
Allyl chloride	< 2.4100						-	
Benzene	< .5790						-	
Bromobenzene	< 1.0700						-	
Bromochloromethane	< .9700						-	
Bromodichloromethane	< .8990						-	
Bromoform	< .6570						-	
Bromomethane	< 1.7600						-	
Carbon disulfide	< 1.1500						-	
Carbon tetrachloride	< .7290						-	
Chlorobenzene	< .9680						-	
Chloroethane	< 1.7200						-	
Chloroform	< 1.0100						-	
Chloromethane	< 3.0500						-	
cis-1,2-Dichloroethene	< .9140						-	
cis-1,3-Dichloropropene	< 1.0100						-	
Dibromochloromethane	< .7890						-	
Dibromomethane	< 1.3400						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090915B **RunID:** VOC1_090915B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK15B	1	9/15/2009 6:06:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Dichlorodifluoromethane	< 1.6800						-	
Ethylbenzene	< .7990						-	
Hexachlorobutadiene	< 1.8800						-	
Iodomethane	< 1.0300						-	
Isopropylbenzene	< 1.0500						-	
m,p-Xylene	< 1.0100						-	
Methyl tert-butyl ether	< .8070						-	
Methylene chloride	< 2.0000						-	
n-Butylbenzene	< .7080						-	
n-Propylbenzene	< .9640						-	
Naphthalene	< .8490						-	
o-Xylene	< .8080						-	
sec-Butylbenzene	< 1.3300						-	
Styrene	< .8350						-	
tert-Butylbenzene	< 1.0500						-	
Tetrachloroethene	< .7390						-	
Toluene	< .6150						-	
trans-1,2-Dichloroethene	< .8930						-	
trans-1,3-Dichloropropene	< 1.0600						-	
Trichloroethene	< .7310						-	
Trichlorofluoromethane	< 1.6900						-	
Vinyl chloride	< .9200						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090915B **RunID:** VOC1_090915B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS15B	1	9/15/2009 6:49:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	48.6000		50.0000		97	%	56 - 140	
							RPDLimit = 30	
1,1,1-Trichloroethane	50.6000		50.0000		101	%	42 - 177	
							RPDLimit = 30	
1,1,2,2-Tetrachloroethane	48.0000		50.0000		96	%	55 - 128	
							RPDLimit = 30	
1,1,2-Trichloroethane	49.5000		50.0000		99	%	75 - 121	
							RPDLimit = 30	
1,1-Dichloroethane	53.9000		50.0000		108	%	55 - 150	
							RPDLimit = 30	
1,1-Dichloroethene	55.1000		50.0000		110	%	59 - 143	
							RPDLimit = 30	
1,1-Dichloropropene	46.9000		50.0000		94	%	67 - 127	
							RPDLimit = 30	
1,2,3-Trichlorobenzene	45.3000		50.0000		91	%	48 - 123	
							RPDLimit = 30	
1,2,3-Trichloropropane	43.2000		50.0000		86	%	61 - 129	
							RPDLimit = 30	
1,2,4-Trichlorobenzene	51.8000		50.0000		104	%	50 - 130	
							RPDLimit = 30	
1,2,4-Trimethylbenzene	42.7000		50.0000		85	%	64 - 109	
							RPDLimit = 30	
1,2-Dibromo-3-chloropropane	47.0000		50.0000		94	%	12 - 160	
							RPDLimit = 30	
1,2-Dibromoethane	49.9000		50.0000		100	%	60 - 132	
							RPDLimit = 30	
1,2-Dichlorobenzene	45.7000		50.0000		91	%	65 - 129	
							RPDLimit = 30	
1,2-Dichloroethane	47.0000		50.0000		94	%	74 - 129	
							RPDLimit = 30	
1,2-Dichloropropane	51.1000		50.0000		102	%	48 - 156	
							RPDLimit = 30	
1,3,5-Trimethylbenzene	45.5000		50.0000		91	%	60 - 132	
							RPDLimit = 30	
1,3-Dichlorobenzene	46.3000		50.0000		93	%	64 - 132	
							RPDLimit = 30	
1,3-Dichloropropane	49.2000		50.0000		98	%	81 - 110	
							RPDLimit = 30	
1,4-Dichlorobenzene	44.8000		50.0000		90	%	68 - 127	
							RPDLimit = 30	
1-Chlorohexane	49.4000		50.0000		99	%	11 - 158	
							RPDLimit = 30	
2,2-Dichloropropane	52.5000		50.0000		105	%	21 - 201	
							RPDLimit = 30	
2-Butanone	90.6000		100.0000		91	%	45 - 165	
							RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090915B **RunID:** VOC1_090915B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS15B	1	9/15/2009 6:49:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Chlorotoluene	46.6000		50.0000		93	%	60 - 130	
							RPDLimit = 30	
2-Hexanone	95.2000		100.0000		95	%	31 - 203	
							RPDLimit = 30	
4-Chlorotoluene	43.6000		50.0000		87	%	61 - 117	
							RPDLimit = 30	
4-Isopropyltoluene	46.4000		50.0000		93	%	62 - 120	
							RPDLimit = 30	
4-Methyl-2-pentanone	98.8000		100.0000		99	%	30 - 177	
							RPDLimit = 30	
Acetone	91.8000		100.0000		92	%	35 - 139	
							RPDLimit = 30	
Allyl chloride	46.2000		50.0000		92	%	45 - 140	
							RPDLimit = 30	
Benzene	50.2000		50.0000		100	%	70 - 121	
							RPDLimit = 30	
Bromobenzene	45.6000		50.0000		91	%	57 - 134	
							RPDLimit = 30	
Bromochloromethane	54.9000		50.0000		110	%	61 - 146	
							RPDLimit = 30	
Bromodichloromethane	47.8000		50.0000		96	%	60 - 143	
							RPDLimit = 30	
Bromoform	50.9000		50.0000		102	%	40 - 136	
							RPDLimit = 30	
Bromomethane	50.9000		50.0000		102	%	48 - 146	
							RPDLimit = 30	
Carbon disulfide	47.4000		50.0000		95	%	10 - 187	
							RPDLimit = 30	
Carbon tetrachloride	45.9000		50.0000		92	%	30 - 160	
							RPDLimit = 30	
Chlorobenzene	50.2000		50.0000		100	%	62 - 132	
							RPDLimit = 30	
Chloroethane	47.6000		50.0000		95	%	59 - 144	
							RPDLimit = 30	
Chloroform	51.5000		50.0000		103	%	62 - 152	
							RPDLimit = 30	
Chloromethane	55.2000		50.0000		110	%	49 - 149	
							RPDLimit = 30	
cis-1,2-Dichloroethene	54.6000		50.0000		109	%	54 - 146	
							RPDLimit = 30	
cis-1,3-Dichloropropene	50.4000		50.0000		101	%	60 - 134	
							RPDLimit = 30	
Dibromochloromethane	47.9000		50.0000		96	%	48 - 141	
							RPDLimit = 30	
Dibromomethane	48.5000		50.0000		97	%	58 - 144	
							RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090915B **RunID:** VOC1_090915B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS15B	1	9/15/2009 6:49:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Dichlorodifluoromethane	50.1000		50.0000		100	%	41 - 154	
							RPDLimit = 30	
Ethylbenzene	48.4000		50.0000		97	%	66 - 128	
							RPDLimit = 30	
Hexachlorobutadiene	51.1000		50.0000		102	%	56 - 150	
							RPDLimit = 30	
Iodomethane	46.4000		50.0000		93	%	27 - 143	
							RPDLimit = 30	
Isopropylbenzene	46.0000		50.0000		92	%	46 - 144	
							RPDLimit = 30	
m,p-Xylene	101.0000		100.0000		101	%	47 - 146	
							RPDLimit = 30	
Methyl tert-butyl ether	52.1000		50.0000		104	%	61 - 140	
							RPDLimit = 30	
Methylene chloride	49.0000		50.0000		98	%	34 - 183	
							RPDLimit = 30	
n-Butylbenzene	46.0000		50.0000		92	%	59 - 134	
							RPDLimit = 30	
n-Propylbenzene	45.8000		50.0000		92	%	57 - 120	
							RPDLimit = 30	
Naphthalene	47.5000		50.0000		95	%	18 - 144	
							RPDLimit = 30	
o-Xylene	50.3000		50.0000		101	%	72 - 130	
							RPDLimit = 30	
sec-Butylbenzene	46.1000		50.0000		92	%	46 - 146	
							RPDLimit = 30	
Styrene	49.6000		50.0000		99	%	62 - 134	
							RPDLimit = 30	
tert-Butylbenzene	46.8000		50.0000		94	%	64 - 123	
							RPDLimit = 30	
Tetrachloroethene	47.0000		50.0000		94	%	47 - 147	
							RPDLimit = 30	
Toluene	49.9000		50.0000		100	%	70 - 125	
							RPDLimit = 30	
trans-1,2-Dichloroethene	53.7000		50.0000		107	%	54 - 142	
							RPDLimit = 30	
trans-1,3-Dichloropropene	49.8000		50.0000		100	%	54 - 134	
							RPDLimit = 30	
Trichloroethene	47.9000		50.0000		96	%	74 - 123	
							RPDLimit = 30	
Trichlorofluoromethane	51.4000		50.0000		103	%	46 - 167	
							RPDLimit = 30	
Vinyl chloride	48.0000		50.0000		96	%	54 - 161	
							RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090915B **RunID:** VOC1_090915B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909018-09AMS	1	9/16/2009 2:06:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	49.9000		50.0000		100	%	56 - 140	
							RPDLimit = 30	
1,1,1-Trichloroethane	53.8000		50.0000		108	%	42 - 177	
							RPDLimit = 30	
1,1,2,2-Tetrachloroethane	49.0000		50.0000		98	%	55 - 128	
							RPDLimit = 30	
1,1,2-Trichloroethane	46.1000		50.0000		92	%	75 - 121	
							RPDLimit = 30	
1,1-Dichloroethane	54.8000		50.0000		110	%	55 - 150	
							RPDLimit = 30	
1,1-Dichloroethene	49.7000		50.0000		99	%	59 - 143	
							RPDLimit = 30	
1,1-Dichloropropene	49.8000		50.0000		100	%	67 - 127	
							RPDLimit = 30	
1,2,3-Trichlorobenzene	47.3000		50.0000		95	%	48 - 123	
							RPDLimit = 30	
1,2,3-Trichloropropane	46.7000		50.0000		93	%	61 - 129	
							RPDLimit = 30	
1,2,4-Trichlorobenzene	47.0000		50.0000		94	%	50 - 130	
							RPDLimit = 30	
1,2,4-Trimethylbenzene	41.7000		50.0000		83	%	64 - 109	
							RPDLimit = 30	
1,2-Dibromo-3-chloropropane	55.3000		50.0000		111	%	12 - 160	
							RPDLimit = 30	
1,2-Dibromoethane	44.1000		50.0000		88	%	60 - 132	
							RPDLimit = 30	
1,2-Dichlorobenzene	41.3000		50.0000		83	%	65 - 129	
							RPDLimit = 30	
1,2-Dichloroethane	52.1000		50.0000		104	%	74 - 129	
							RPDLimit = 30	
1,2-Dichloropropane	45.0000		50.0000		90	%	48 - 156	
							RPDLimit = 30	
1,3,5-Trimethylbenzene	43.5000		50.0000		87	%	60 - 132	
							RPDLimit = 30	
1,3-Dichlorobenzene	40.6000		50.0000		81	%	64 - 132	
							RPDLimit = 30	
1,3-Dichloropropane	46.0000		50.0000		92	%	81 - 110	
							RPDLimit = 30	
1,4-Dichlorobenzene	49.2000		50.0000		98	%	68 - 127	
							RPDLimit = 30	
1-Chlorohexane	50.5000		50.0000		101	%	11 - 158	
							RPDLimit = 30	
2,2-Dichloropropane	50.3000		50.0000		101	%	21 - 201	
							RPDLimit = 30	
2-Butanone	92.6000		100.0000		93	%	45 - 165	
							RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090915B **RunID:** VOC1_090915B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909018-09AMS	1	9/16/2009 2:06:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Chlorotoluene	42.4000		50.0000		85	%	60 - 130	
							RPDLimit = 30	
2-Hexanone	91.0000		100.0000		91	%	31 - 203	
							RPDLimit = 30	
4-Chlorotoluene	42.1000		50.0000		84	%	61 - 117	
							RPDLimit = 30	
4-Isopropyltoluene	44.1000		50.0000		88	%	62 - 120	
							RPDLimit = 30	
4-Methyl-2-pentanone	90.4000		100.0000		90	%	30 - 177	
							RPDLimit = 30	
Acetone	96.6000		100.0000		97	%	35 - 139	
							RPDLimit = 30	
Allyl chloride	51.2000		50.0000		102	%	45 - 140	
							RPDLimit = 30	
Benzene	44.6000		50.0000		89	%	70 - 121	
							RPDLimit = 30	
Bromobenzene	48.5000		50.0000		97	%	57 - 134	
							RPDLimit = 30	
Bromochloromethane	47.4000		50.0000		95	%	61 - 146	
							RPDLimit = 30	
Bromodichloromethane	50.1000		50.0000		100	%	60 - 143	
							RPDLimit = 30	
Bromoform	48.1000		50.0000		96	%	40 - 136	
							RPDLimit = 30	
Bromomethane	46.1000		50.0000		92	%	48 - 146	
							RPDLimit = 30	
Carbon disulfide	52.3000		50.0000		105	%	10 - 187	
							RPDLimit = 30	
Carbon tetrachloride	52.8000		50.0000		106	%	30 - 160	
							RPDLimit = 30	
Chlorobenzene	46.5000		50.0000		93	%	62 - 132	
							RPDLimit = 30	
Chloroethane	54.8000		50.0000		110	%	59 - 144	
							RPDLimit = 30	
Chloroform	46.9000		50.0000		94	%	62 - 152	
							RPDLimit = 30	
Chloromethane	48.6000		50.0000		97	%	49 - 149	
							RPDLimit = 30	
cis-1,2-Dichloroethene	47.2000		50.0000		94	%	54 - 146	
							RPDLimit = 30	
cis-1,3-Dichloropropene	46.6000		50.0000		93	%	60 - 134	
							RPDLimit = 30	
Dibromochloromethane	47.2000		50.0000		94	%	48 - 141	
							RPDLimit = 30	
Dibromomethane	44.6000		50.0000		89	%	58 - 144	
							RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090915B **RunID:** VOC1_090915B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909018-09AMS	1	9/16/2009 2:06:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Dichlorodifluoromethane	53.5000		50.0000		107	%	41 - 154	
							RPDLimit = 30	
Ethylbenzene	49.7000		50.0000		99	%	66 - 128	
							RPDLimit = 30	
Hexachlorobutadiene	45.7000		50.0000		91	%	56 - 150	
							RPDLimit = 30	
Iodomethane	49.9000		50.0000		100	%	27 - 143	
							RPDLimit = 30	
Isopropylbenzene	41.0000		50.0000		82	%	46 - 144	
							RPDLimit = 30	
m,p-Xylene	96.9000		100.0000		97	%	47 - 146	
							RPDLimit = 30	
Methyl tert-butyl ether	52.4000		50.0000		105	%	61 - 140	
							RPDLimit = 30	
Methylene chloride	49.6000		50.0000		99	%	34 - 183	
							RPDLimit = 30	
n-Butylbenzene	44.2000		50.0000		88	%	59 - 134	
							RPDLimit = 30	
n-Propylbenzene	41.4000		50.0000		83	%	57 - 120	
							RPDLimit = 30	
Naphthalene	48.8000		50.0000		98	%	18 - 144	
							RPDLimit = 30	
o-Xylene	49.2000		50.0000		98	%	72 - 130	
							RPDLimit = 30	
sec-Butylbenzene	43.8000		50.0000		88	%	46 - 146	
							RPDLimit = 30	
Styrene	48.3000		50.0000		97	%	62 - 134	
							RPDLimit = 30	
tert-Butylbenzene	44.3000		50.0000		89	%	64 - 123	
							RPDLimit = 30	
Tetrachloroethene	45.0000		50.0000		90	%	47 - 147	
							RPDLimit = 30	
Toluene	45.7000		50.0000		91	%	70 - 125	
							RPDLimit = 30	
trans-1,2-Dichloroethene	48.2000		50.0000		96	%	54 - 142	
							RPDLimit = 30	
trans-1,3-Dichloropropene	48.7000		50.0000		97	%	54 - 134	
							RPDLimit = 30	
Trichloroethene	46.6000		50.0000		93	%	74 - 123	
							RPDLimit = 30	
Trichlorofluoromethane	47.0000		50.0000		94	%	46 - 167	
							RPDLimit = 30	
Vinyl chloride	51.8000		50.0000		104	%	54 - 161	
							RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090915B **RunID:** VOC1_090915B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909018-09AMSD	1	9/16/2009 2:50:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	43.5000	49.9000	50.0000		87	%	56 - 140	
					RPD = 13.7		RPDLimit = 30	
1,1,1-Trichloroethane	53.1000	53.8000	50.0000		106	%	42 - 177	
					RPD = 1.3		RPDLimit = 30	
1,1,2,2-Tetrachloroethane	47.6000	49.0000	50.0000		95	%	55 - 128	
					RPD = 2.9		RPDLimit = 30	
1,1,2-Trichloroethane	41.9000	46.1000	50.0000		84	%	75 - 121	
					RPD = 9.5		RPDLimit = 30	
1,1-Dichloroethane	50.0000	54.8000	50.0000		100	%	55 - 150	
					RPD = 9.2		RPDLimit = 30	
1,1-Dichloroethene	47.4000	49.7000	50.0000		95	%	59 - 143	
					RPD = 4.7		RPDLimit = 30	
1,1-Dichloropropene	42.3000	49.8000	50.0000		85	%	67 - 127	
					RPD = 16.3		RPDLimit = 30	
1,2,3-Trichlorobenzene	47.4000	47.3000	50.0000		95	%	48 - 123	
					RPD = 0.2		RPDLimit = 30	
1,2,3-Trichloropropane	44.0000	46.7000	50.0000		88	%	61 - 129	
					RPD = 6.0		RPDLimit = 30	
1,2,4-Trichlorobenzene	46.2000	47.0000	50.0000		92	%	50 - 130	
					RPD = 1.7		RPDLimit = 30	
1,2,4-Trimethylbenzene	47.6000	41.7000	50.0000		95	%	64 - 109	
					RPD = 13.2		RPDLimit = 30	
1,2-Dibromo-3-chloropropane	49.9000	55.3000	50.0000		100	%	12 - 160	
					RPD = 10.3		RPDLimit = 30	
1,2-Dibromoethane	42.0000	44.1000	50.0000		84	%	60 - 132	
					RPD = 4.9		RPDLimit = 30	
1,2-Dichlorobenzene	48.8000	41.3000	50.0000		98	%	65 - 129	
					RPD = 16.6		RPDLimit = 30	
1,2-Dichloroethane	44.3000	52.1000	50.0000		89	%	74 - 129	
					RPD = 16.2		RPDLimit = 30	
1,2-Dichloropropane	42.6000	45.0000	50.0000		85	%	48 - 156	
					RPD = 5.5		RPDLimit = 30	
1,3,5-Trimethylbenzene	49.2000	43.5000	50.0000		98	%	60 - 132	
					RPD = 12.3		RPDLimit = 30	
1,3-Dichlorobenzene	47.8000	40.6000	50.0000		96	%	64 - 132	
					RPD = 16.3		RPDLimit = 30	
1,3-Dichloropropane	41.3000	46.0000	50.0000		83	%	81 - 110	
					RPD = 10.8		RPDLimit = 30	
1,4-Dichlorobenzene	46.2000	49.2000	50.0000		92	%	68 - 127	
					RPD = 6.3		RPDLimit = 30	
1-Chlorohexane	44.6000	50.5000	50.0000		89	%	11 - 158	
					RPD = 12.4		RPDLimit = 30	
2,2-Dichloropropane	49.5000	50.3000	50.0000		99	%	21 - 201	
					RPD = 1.6		RPDLimit = 30	
2-Butanone	93.3000	92.6000	100.0000		93	%	45 - 165	
					RPD = 0.8		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090915B **RunID:** VOC1_090915B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909018-09AMSD	1	9/16/2009 2:50:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Chlorotoluene	48.5000	42.4000	50.0000		97	%	60 - 130	
					RPD = 13.4		RPDLimit = 30	
2-Hexanone	95.7000	91.0000	100.0000		96	%	31 - 203	
					RPD = 5.0		RPDLimit = 30	
4-Chlorotoluene	48.0000	42.1000	50.0000		96	%	61 - 117	
					RPD = 13.1		RPDLimit = 30	
4-Isopropyltoluene	49.9000	44.1000	50.0000		100	%	62 - 120	
					RPD = 12.3		RPDLimit = 30	
4-Methyl-2-pentanone	94.1000	90.4000	100.0000		94	%	30 - 177	
					RPD = 4.0		RPDLimit = 30	
Acetone	91.6000	96.6000	100.0000		92	%	35 - 139	
					RPD = 5.3		RPDLimit = 30	
Allyl chloride	48.2000	51.2000	50.0000		96	%	45 - 140	
					RPD = 6.0		RPDLimit = 30	
Benzene	42.1000	44.6000	50.0000		84	%	70 - 121	
					RPD = 5.8		RPDLimit = 30	
Bromobenzene	44.6000	48.5000	50.0000		89	%	57 - 134	
					RPD = 8.4		RPDLimit = 30	
Bromochloromethane	46.2000	47.4000	50.0000		92	%	61 - 146	
					RPD = 2.6		RPDLimit = 30	
Bromodichloromethane	44.1000	50.1000	50.0000		88	%	60 - 143	
					RPD = 12.7		RPDLimit = 30	
Bromoform	41.1000	48.1000	50.0000		82	%	40 - 136	
					RPD = 15.7		RPDLimit = 30	
Bromomethane	54.1000	46.1000	50.0000		108	%	48 - 146	
					RPD = 16.0		RPDLimit = 30	
Carbon disulfide	49.2000	52.3000	50.0000		98	%	10 - 187	
					RPD = 6.1		RPDLimit = 30	
Carbon tetrachloride	45.2000	52.8000	50.0000		90	%	30 - 160	
					RPD = 15.5		RPDLimit = 30	
Chlorobenzene	42.4000	46.5000	50.0000		85	%	62 - 132	
					RPD = 9.2		RPDLimit = 30	
Chloroethane	53.0000	54.8000	50.0000		106	%	59 - 144	
					RPD = 3.3		RPDLimit = 30	
Chloroform	50.3000	46.9000	50.0000		101	%	62 - 152	
					RPD = 7.0		RPDLimit = 30	
Chloromethane	48.5000	48.6000	50.0000		97	%	49 - 149	
					RPD = 0.2		RPDLimit = 30	
cis-1,2-Dichloroethene	55.0000	47.2000	50.0000		110	%	54 - 146	
					RPD = 15.3		RPDLimit = 30	
cis-1,3-Dichloropropene	41.1000	46.6000	50.0000		82	%	60 - 134	
					RPD = 12.5		RPDLimit = 30	
Dibromochloromethane	43.2000	47.2000	50.0000		86	%	48 - 141	
					RPD = 8.8		RPDLimit = 30	
Dibromomethane	41.2000	44.6000	50.0000		82	%	58 - 144	
					RPD = 7.9		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090915B **RunID:** VOC1_090915B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909018-09AMSD	1	9/16/2009 2:50:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Dichlorodifluoromethane	52.3000	53.5000	50.0000		105	%	41 - 154	
					RPD = 2.3		RPDLimit = 30	
Ethylbenzene	43.9000	49.7000	50.0000		88	%	66 - 128	
					RPD = 12.4		RPDLimit = 30	
Hexachlorobutadiene	42.6000	45.7000	50.0000		85	%	56 - 150	
					RPD = 7.0		RPDLimit = 30	
Iodomethane	47.8000	49.9000	50.0000		96	%	27 - 143	
					RPD = 4.3		RPDLimit = 30	
Isopropylbenzene	46.8000	41.0000	50.0000		94	%	46 - 144	
					RPD = 13.2		RPDLimit = 30	
m,p-Xylene	86.9000	96.9000	100.0000		87	%	47 - 146	
					RPD = 10.9		RPDLimit = 30	
Methyl tert-butyl ether	47.8000	52.4000	50.0000		96	%	61 - 140	
					RPD = 9.2		RPDLimit = 30	
Methylene chloride	50.2000	49.6000	50.0000		100	%	34 - 183	
					RPD = 1.2		RPDLimit = 30	
n-Butylbenzene	43.7000	44.2000	50.0000		87	%	59 - 134	
					RPD = 1.1		RPDLimit = 30	
n-Propylbenzene	48.0000	41.4000	50.0000		96	%	57 - 120	
					RPD = 14.8		RPDLimit = 30	
Naphthalene	42.6000	48.8000	50.0000		85	%	18 - 144	
					RPD = 13.6		RPDLimit = 30	
o-Xylene	44.0000	49.2000	50.0000		88	%	72 - 130	
					RPD = 11.2		RPDLimit = 30	
sec-Butylbenzene	44.2000	43.8000	50.0000		88	%	46 - 146	
					RPD = 0.9		RPDLimit = 30	
Styrene	43.5000	48.3000	50.0000		87	%	62 - 134	
					RPD = 10.5		RPDLimit = 30	
tert-Butylbenzene	50.0000	44.3000	50.0000		100	%	64 - 123	
					RPD = 12.1		RPDLimit = 30	
Tetrachloroethene	42.2000	45.0000	50.0000		84	%	47 - 147	
					RPD = 6.4		RPDLimit = 30	
Toluene	40.8000	45.7000	50.0000		82	%	70 - 125	
					RPD = 11.3		RPDLimit = 30	
trans-1,2-Dichloroethene	51.5000	48.2000	50.0000		103	%	54 - 142	
					RPD = 6.6		RPDLimit = 30	
trans-1,3-Dichloropropene	42.5000	48.7000	50.0000		85	%	54 - 134	
					RPD = 13.6		RPDLimit = 30	
Trichloroethene	45.8000	46.6000	50.0000		92	%	74 - 123	
					RPD = 1.7		RPDLimit = 30	
Trichlorofluoromethane	54.8000	47.0000	50.0000		110	%	46 - 167	
					RPD = 15.3		RPDLimit = 30	
Vinyl chloride	53.3000	51.8000	50.0000		107	%	54 - 161	
					RPD = 2.9		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

SURROGATE RECOVERIES REPORT

WorkOrder: 0909018

Report Date: 9/29/2009

Company: Alamo 1

PROJECT: LHAAP19LFCA

ATTN: Phyllis Primrose

Method Volatile Organics by GC/MS

Method Code SW8260B

BatchID VOC1_090915B

Test Matrix Soil

SampType	*SampID*	*AnalDate*	*12Dd4*	*Td8*	*DBFM*	*BFB*
MBLK	09BLK15B	9/15/2009	78.80	87.60	100.40	96.40
LFB	09LCS15B	9/15/2009	71.60	86.00	105.00	96.80
SAMP	0909018-01A	9/15/2009	82.45	83.57	104.58	95.60
SAMP	0909018-02A	9/15/2009	87.90	84.37	111.48	101.55
SAMP	0909018-03A	9/15/2009	70.13	84.72	110.93	100.86
SAMP	0909018-04A	9/15/2009	81.17	84.71	119.06	100.37
SAMP	0909018-05A	9/15/2009	73.36	86.46	112.67	100.76
SAMP	0909018-06A	9/15/2009	76.83	82.25	116.03	100.98
SAMP	0909018-07A	9/15/2009	78.30	83.78	116.51	99.07
SAMP	0909018-08A	9/16/2009	89.44	83.01	124.00	102.83
SAMP	0909018-09A	9/16/2009	81.99	85.54	116.53	102.49
MS_F	0909018-09A	9/16/2009	89.60	84.20	118.40	96.40
MSDF	0909018-09A	9/16/2009	82.20	82.60	115.40	95.00

Test	***Test Description***	***Limits***
12Dd4	1,2-Dichloroethane-d4	60-133
Td8	Toluene-d8	67-128
4BFB	4-Bromofluorobenzene	70-125
DBFM	Dibromofluoromethane	70-122

For Surrogates: 0 = Dil.Out

Alamo Analytical Laboratories, LTD

SURROGATE RECOVERIES REPORT

WorkOrder: 0909018 Report Date: 9/29/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Method Code Semi-volatile Organics by GC/MS *Method Code* SW8270C

BatchID SVOC1_090921B *Test Matrix* Soil

SampType	*SampID*	*AnalDate*	*246TBP*	*2FBP*	*2FP*	*NBD5*	*PD5*	*TD14*
MBLK	09BLK09A	9/21/2009	105.45	95.81	74.24	78.44	76.36	92.22
LFB	09LCS09A	9/21/2009	106.67	88.02	69.70	84.43	90.61	92.22
SAMP	0909018-01A	9/21/2009	124.24	65.27	95.15	56.89	114.55	73.05
SAMP	0909018-02A	9/21/2009	88.18	67.07	58.79	54.73	85.45	102.40
SAMP	0909018-03A	9/21/2009	126.36	95.21	98.18	75.45	115.45	107.78
SAMP	0909018-04A	9/21/2009	82.12	62.28	57.88	54.67	88.79	108.98
SAMP	0909018-05A	9/21/2009	71.52	67.07	42.42	54.01	76.36	133.53
SAMP	0909018-06A	9/21/2009	64.55	70.06	32.73	55.39	67.27	136.53
SAMP	0909018-07A	9/21/2009	55.45	61.68	32.42	44.13	58.18	133.53
SAMP	0909018-08A	9/22/2009	86.06	63.47	50.00	56.47	81.21	132.93
MS_F	0909018-03A	9/22/2009	116.67	94.61	69.09	79.64	91.52	71.26
MSDF	0909018-03A	9/22/2009	206.97	161.08	39.39	92.22	71.82	107.78

Test	***Test Description***	***Limits***
246TBP	2,4,6-Tribromophenol	11-143
2FBP	2-Fluorobiphenyl	49-125
2FP	2-Fluorophenol	28-110
NBD5	Nitrobenzene-d5	36-122
PD5	Phenol-d5	10-110
TD14	Terphenyl-d14	10-176

For Surrogates: 0 = Dil.Out

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 9/29/2009

Job Number.: 0909018 Project Name...: LHAAP19LFCA

Customer.....: Alamo 1 Attn.....: Phyllis Primrose

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
CN_R_TS	BLK	9/10/2009	9/4/2009

Method:	Description:	BatchID:	RunID:
SW9010A	CYANIDE, TOTAL	CN_R_TS-9/10/2009	CN_090910A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909018-01	B5-1	9/10/2009	1
0909018-02	B5-2	9/10/2009	1
0909018-03	B6-1	9/10/2009	1
0909018-04	B6-2	9/10/2009	1
0909018-05	B8-1	9/10/2009	1
0909018-06	B8-2	9/10/2009	1
0909018-07	B10-1	9/10/2009	1
0909018-08	B10-2	9/10/2009	1

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 9/29/2009

Job Number.: 0909018 Project Name...: LHAAP19LFCA

Customer.....: Alamo 1 Attn.....: Phyllis Primrose

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
HG_R_S	09BLK08B	9/8/2009 2:00:00 PM	9/4/2009

Method:	Description:	BatchID:	RunID:
SW7471A	MERCURY, TOTAL	HG_R_S-09/8A/2009	HG_090908F

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909018-01	B5-1	9/8/2009 7:15:00 PM	1
0909018-02	B5-2	9/8/2009 7:15:00 PM	1
0909018-03	B6-1	9/8/2009 7:15:00 PM	1
0909018-04	B6-2	9/8/2009 7:15:00 PM	1
0909018-05	B8-1	9/8/2009 7:15:00 PM	1
0909018-06	B8-2	9/8/2009 7:15:00 PM	1
0909018-07	B10-1	9/8/2009 7:15:00 PM	1
0909018-08	B10-2	9/8/2009 7:15:00 PM	1

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 9/29/2009

Job Number.: 0909018 Project Name...: LHAAP19LFCA

Customer.....: Alamo 1 Attn.....: Phyllis Primrose

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
TAL_S	BLK	9/5/2009	9/4/2009

Method:	Description:	BatchID:	RunID:
SW6010B	TARGET ANALYTE LIST	TAL_S-9/4/2009	ICP_090908B

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909018-01	B5-1	9/8/2009 5:00:00 PM	1
0909018-02	B5-2	9/8/2009 5:00:00 PM	1
0909018-03	B6-1	9/8/2009 5:00:00 PM	1
0909018-04	B6-2	9/8/2009 5:00:00 PM	1
0909018-05	B8-1	9/8/2009 5:00:00 PM	1
0909018-06	B8-2	9/8/2009 5:00:00 PM	1
0909018-07	B10-1	9/8/2009 5:00:00 PM	1
0909018-08	B10-2	9/8/2009 5:00:00 PM	1

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 9/29/2009

Job Number.: 0909018 Project Name...: LHAAP19LFCA

Customer.....: Alamo 1 Attn.....: Phyllis Primrose

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
8270C_S	09BLK09A	9/9/2009 9:30:00 AM	9/4/2009

Method:	Description:	BatchID:	RunID:
SW8270C	Semi-volatile Organics by	SVOC1_090921B	SVOC1_090921B

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909018-01	B5-1	9/21/2009 7:12:00 PM	1
0909018-02	B5-2	9/21/2009 7:50:00 PM	1
0909018-03	B6-1	9/21/2009 9:55:00 PM	1
0909018-04	B6-2	9/21/2009 8:28:00 PM	1
0909018-05	B8-1	9/21/2009 9:06:00 PM	1
0909018-06	B8-2	9/21/2009 11:44:00 PM	1
0909018-07	B10-1	9/21/2009 10:22:00 PM	1
0909018-08	B10-2	9/22/2009 1:50:00 AM	1

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 9/29/2009

Job Number.: 0909018 Project Name...: LHAAP19LFCA

Customer.....: Alamo 1 Attn.....: Phyllis Primrose

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
8270C_SS	09BLK09A	9/9/2009 9:30:00 AM	9/4/2009

Method:	Description:	BatchID:	RunID:
SW8270C	Semivolatiles SIM	SVOC1_090922A	SVOC1_090922A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909018-01	B5-1	9/23/2009 12:48:00 AM	1
0909018-02	B5-2	9/23/2009 1:24:00 AM	1
0909018-03	B6-1	9/23/2009 1:58:00 AM	1
0909018-04	B6-2	9/23/2009 2:35:00 AM	1
0909018-05	B8-1	9/23/2009 3:12:00 AM	1
0909018-06	B8-2	9/23/2009 3:50:00 AM	1
0909018-07	B10-1	9/23/2009 4:27:00 AM	1
0909018-08	B10-2	9/23/2009 5:04:00 AM	1

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 9/29/2009

Job Number.: 0909018 Project Name...: LHAAP19LFCA

Customer.....: Alamo 1 Attn.....: Phyllis Primrose

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
CR6_S	BLK	9/9/2009	9/4/2009

Method:	Description:	BatchID:	RunID:
SW7196A	HEXAVALENT CHROMIU	CR6_S-9/9/2009	UV1_090909B

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909018-01	B5-1	9/9/2009	20
0909018-02	B5-2	9/9/2009	20
0909018-03	B6-1	9/9/2009	20
0909018-04	B6-2	9/9/2009	20
0909018-05	B8-1	9/9/2009	20
0909018-06	B8-2	9/9/2009	20
0909018-07	B10-1	9/9/2009	20
0909018-08	B10-2	9/9/2009	20

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 9/29/2009

Job Number.: 0909018 Project Name...: LHAAP19LFCA

Customer.....: Alamo 1 Attn.....: Phyllis Primrose

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
8260B_S	09BLK15B	9/15/2009 6:06:00 PM	9/4/2009

Method:	Description:	BatchID:	RunID:
SW8260B	Volatile Organics by GC/	VOC1_090915B	VOC1_090915B

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909018-01	B5-1	9/15/2009 7:33:00 PM	1
0909018-02	B5-2	9/15/2009 8:17:00 PM	1
0909018-03	B6-1	9/15/2009 9:00:00 PM	1
0909018-04	B6-2	9/15/2009 9:44:00 PM	1
0909018-05	B8-1	9/15/2009 10:28:00 PM	1
0909018-06	B8-2	9/15/2009 11:11:00 PM	1
0909018-07	B10-1	9/15/2009 11:55:00 PM	1
0909018-08	B10-2	9/16/2009 12:39:00 AM	1
0909018-09	B8-3	9/16/2009 1:22:00 AM	1

Alamo Analytical Laboratories, LTD
(DBA Chemron)

QUALITY ASSURANCE METHODS REFERENCES AND NOTES

Report Date: Sep 29, 2009

(1) EPA SW-846, Test Method for Evaluating Solid Waste, Third Edition, September 1986, and Updates I, II, IIA, IIB, and III

(2) ASTM, Section 11 Water and Environmental Technology, Volume 11.01 Water (1), 1991

(3) TCEQ Method 1005, Revision 3, June 2001

QC Sample Identification:

DF:	Dilution Factor
MBLK:	Method Blank
MS/MS_F:	Method (Matrix) Spike
MSD/MSDF:	Method (Matrix) Spike Duplicate
LCS:	Laboratory Control Standard
LCSD:	Laboratory Control Standard Duplicate
LFB:	Laboratory Fortified Blank
LFBD:	Laboratory Fortified Blank Duplicate
DUP:	Sample Duplicate
RPD:	Relative Percent Difference

General Qualifiers:
U - Analyte was analyzed but not detected
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

10526 Gulfdale San Antonio, TX 78216

Alamo Analytical Laboratories, LTD
(DBA Chemron)

10526 Gulfdale, San Antonio , Texas 78216-3601 (210) 340-8121
Alamo_labs@sbcglobal.net; www.alamoanalytical.com

Sample Log-In Checklist

DATE: 9 / 4 / 2009 **TIME:** 0805 **INITIALS:** [illegible]

CLIENT: Alamo 1 **PROJECT:** LHAAP19 LFCA **W.O#** 909018

1. Is a Chain of Custody present? Yes No
2. Is a Chain of Custody properly completed? Yes No
3. Are custody seals present? Yes No
   If yes, are they intact? Yes No
   Are they on: Sample ✓ ~~or on~~ And @ 9-4-9 Shipping Container ✓
4. Are all samples tagged or labeled? Yes No
   If yes, do the labels match the Chain of Custody? Yes No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   If not, describe below. Yes No N/A
6. Are samples preserved properly? *If not*, describe below. Yes No
7. Are all samples within holding times on arrival? Yes No
   If not, describe below.

Other

8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: 1°C
11. Delivery agent: Client ___ UPS ___ Fed-Ex ___ Lone Star ✓ Alamo P/U ___ Other _____
12. Sample disposal: Return to client _____ Alamo Analytical Disposal ✓

Comments: (Reference checklist item number from above, or for comments on resolution below):

TRRP

See CoC for QA/QC Instructions

Solid ~~Liquid~~ @ 9-4-9

Record of contacting client for resolution of sample discrepancies (first and retry contact)
Contacted How?

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

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Data Usability Summary
LHAAP-19
Lab Project No. 0911053

Introduction

Regulatory Compliance & Guidance (RCG) reviewed one data package (Job No. 0911053) from Alamo Analytical Laboratories, LTD. The data package was reviewed following guidance (Consistency Document[1] and TRRP-13[2]) prepared by the Texas Commission on Environmental Quality (TCEQ) and the equivalent sections of engineering manual (EM) 200-1-10[3] prepared by the US Army Corps of Engineers (USACE).

Intended Use of Data

The data is to be used to support a risk-based closure of the LHAAP-19 under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) consistent with requirements of Title 30 Texas Administrative Code (TAC) §335.8 (relating to closure and remediation).

Data Package Content

In order to ensure data quality, a TRRP-13 reporting package was provided by the laboratory. The data package included the following:

- completed chain of custody form,
- cross-reference guide for field to laboratory identification numbers.
- signature page
- reportable data,
- quality control results for duplicates, method blanks, laboratory control samples and laboratory control sample duplicates, matrix spike and matrix spike duplicates, laboratory fortified blanks, and surrogate recoveries.
- laboratory review checklist and associated exception reports (when needed),
- laboratory chronicles, and
- quality assurance methods, references, and notes.

Chain of Custody Form

Six (6) soil samples were collected on November 11, 2009 from the Longhorn Army Ammunition Plant (LHAAP) Site 19 in Karnack, TX (Site). According to the chain of custody form, the soil samples were to be analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (S-VOCs), and target analyte list (TAL) metals. One trip blank was to be analyzed for VOCs.

Analytical Methods, Preservation, and Holding Times

The laboratory utilized analytical methods described in the *Test Methods for Evaluating Solid Waste, Third Edition, September 1986 and Updates I, II, IIA, IIB, and III* (SW-846). The analytical methods utilized were:

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[1] TCEQ. 1998. Interoffice Memorandum regarding Implementation of the Existing Risk Reduction Rule. July 23.
[2] TCEQ. 2002. Review and Reporting COC Concentration Data. RG366/TRRP-13. December.
[3] USACE. 2005. Guidance for Evaluating Performance-Based Chemical Data. EM 200-1-10. June 30. http://140.194.76.129/publications/eng-manuals/em200-1-10/entire.pdf

- SW6010B (aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, selenium, silver, sodium, strontium, thallium, vanadium, and zinc);
- SW7196A (hexavalent chromium);
- SW7471A (mercury);
- SW9010A (cyanide);
- SW8260B (VOCs); and
- SW8270C (S-VOCs).

Preservation and Holding Times

The holding times and preservation requirements found in SW846 and EM 200-1-3[4] are summarized in the following table. The preparation and analysis dates are taken from the laboratory chronicles.

Table 1 Holding Times and Preservation Requirements

Test Method	Holding Times	Preservative	Sample Date	Prep Date	Analysis Date
SW6010B	6 months	4°C	11/11/2009	11/16/2009	11/16/2009
SW7196A	24 hours	4°C	11/11/2009	11/19/2009	11/19/2009
SW7471A	28 days	4°C	11/11/2009	11/12/2009	11/12/2009
SW9010A	14 days	4°C	11/11/2009	11/17/2009	11/17/2009
SW8260B	14 days	4°C	11/11/2009	11/16/2009	11/16/2009
SW8270C	14/40 days	4°C	11/11/2009	11/18/2009	11/30-12/1/2009

The samples were properly sealed and chilled (<4°C). With the exception of hexavalent chromium, the samples were extracted and analyzed within the required holding times. Analytical results for total chromium should be compared to the action level for hexavalent chromium until the absence of hexavalent chromium is confirmed.

Quality Control

Blanks

One trip blank (Field ID TB1) was associated with the samples collected during this sampling event. The sample was analyzed for VOCs. VOCs were not detected in the trip blank.

Thallium was detected in one method blank. Thallium was not detected in the soil samples. No further action is warranted.

Laboratory Control Samples

According to the Environmental Protection Agency (EPA)[5], "The primary purpose of the laboratory control sample (LCS) is to demonstrate that the laboratory can perform the overall analytical approach in a matrix free of interferences (e.g, in reagent water, clean sand, or another suitable reference matrix)." The percent recovery indicates the

[4] USACE. 2001. Engineering and Design – Requirements for the Preparation of Sampling and Analysis Plans. February 1.
[5] EPA. 2009. Batch Sizes and QC Questions. Downloaded from web page on December 4.
http://www.epa.gov/osw/hazard/testmethods/faq/faqs_qc.htm#Spike

accuracy of the lab and whether the data is biased (high or low). The relative percent difference (RPD) indicates the laboratory's ability to reproduce the data (precision).

The lowest and highest percent recoveries are listed in Table 2. The project control limits were based on USACE (2005). Since the laboratory control limits vary for each individual parameter, the widest range is listed for each test method.

Table 2 LCS Percent Recoveries Compared to Project and Laboratory Control Limits

Method Description	Percent Recovery	Project Control Limits (% Recovery)	Laboratory Control Limits (% Recovery)
Inorganics	91-112	80-120	80-120
S-VOCs	49-125	60-140	20-140
VOCs	81-102	80-120	21-201

The control limits were met except for the S-VOC parameters listed in Table 3.

Table 3 Percent Recoveries Outside Control Limits for LCS

Parameter	Percent Recovery LCS	Percent Recovery MS
2,4-dinitrophenol	49 (L)	53
4-chlorophenyl phenyl ether	56 (L)	88
pyridine	59 (L)	51

L = Low

Based on the criteria provided in Table D-2 (TCEQ, 2002) the reported results (detected and non-detected) for the parameters listed in Table 3 may be biased low. The reported results were adjusted by the percent recovery and the adjusted results were compared directly to the action levels. With one exception, the adjusted results do not change the original conclusions based on the reported results.

4-chlorophenyl phenyl ether was not detected in sample 0911053 (B1 14 to 15-foot interval and the SQL was less than the action level. The adjusted result is higher than the action level based on the default MSC for groundwater protection. A site-specific MSC for groundwater protection should be calculated and compared to the adjusted result to determine if additional action is warranted.

Matrix Spike/Matrix Spike Duplicates

The MS/MSD results measure a method's performance relative to the specific sample matrix of interest (EPA, 2009). If the percent recoveries and relative percent differences (RPDs) for the MS/MSD are similar to those of the LCS/LCSDs, then matrix interference is unlikely.

The ranges for percent recovery and RPD for the project samples are listed in Table 4. The project limits were based on USACE, 2005.

Table 4 Percent Recovery Ranges with Maximum RPD for MS/MSDs

Project Sample	Method Description	%Recovery	Maximum RPD	Project Control Limits (% Recovery)	Project Control Limits (RPD)	Laboratory Control Limits (% Recovery)
B7 14-15	Inorganics	42-20452	37.1	80-120	20	80-120
B1 0-1	S-VOCs	44-111	25.1	60-140	40	20-140
B9 14-15	VOCs	83-97	20	80-120	20	21-201

Table 5 lists the parameter and associated RPD for each percent recovery that was outside the project limits AND differed from the percent recoveries for the LCS.

Table 5 Percent Recoveries with Associated RPDs for MS/MSD

Parameter	%Recovery	RPD	Qual/Bias Code
Aluminum	7953	0.9	H
Antimony	49	7.6	L
Barium	23	2.2	L
Iron	20452	0.5	H
Magnesium	355	7.1	H
Manganese	42	1.4	L
Potassium		37.1	J
Sodium	68	11.1	L
Vanadium	131	1.7	H
2,4-dinitrophenol	50	1.1	L
4-methylphenol	52	4.2	L
4-nitrophenol	57	25.1	L
Pyridine	52	3	L

H = High
L = Low
J = Estimated

Using the criteria provided in Tables D-1 and D-2 (TCEQ, 2002) the reported results for these parameters may be biased high (H) or low (L) due to matrix interference. Non-detected results with a percent recovery less than 30% should be rejected. Barium was detected in the project sample; therefore the data should not be rejected. Potassium was detected (465 mg/Kg) in the project sample and the method quantitation limit (MQL) was 25 mg/kg. The detected concentration is more than 5 times the MQL. The detected results in the preparation batch should be qualified with a “J” flag.

The reported results for these parameters were adjusted by the percent recovery and compared to the action level. With the exception of barium, the adjusted results do not change the original conclusion based on the reported results. The adjusted

concentration for barium exceeds the default media- specific concentration (MSC) for groundwater protection (GWP). A site-specific MSC for GWP should be developed for barium.

Surrogate Recoveries

Surrogates are similar in chemical composition to the organic analytes of interest. The surrogates are spiked into environmental and batch QC samples prior to sample preparation and analysis. Surrogate recoveries are used to evaluate potential bias that could have been introduced by the preparatory procedures and/or the analysis (TCEQ, 2002) and to evaluate matrix interference on a sample-specific basis (USACE, 2001).

The surrogate recoveries for blanks, LCSs, and environmental samples were compared to the surrogate recovery limits listed in TCEQ, 2002.

Table 6 Surrogate Recoveries for VOCs

Sample Type	12Dd4	Td8	DBMF	BFB
Blanks	84.2	95.2	77.20 (L)	103.4
LCS	87.60	94.40	77.8 (L)	96
Environmental Samples	83-98	91-110	77-82 (L)	97-102

12Dd4 1,2-dichloroethane-d4
Td8 Toluene-d8
BFB Bromofluorobenzene
DBFM Dibromofluoromethane
H High
L Low
J Estimated

Table 7 Surrogate Recoveries for SVOCs

Sample Type	246TBP	2FBP	2FP	NBD5	PD5	TD14
Blanks	62.73	88.62	79.09	71.26	95.76	82.04
LCS	129.39 (H)	88.02	93.64	108.98	91.52	92.81
Environmental Samples	56-124	84-91	73-89	62-102	79-95	78-100

246TBP 2,4,6-Tribomophenol
2FBP 2-Fluorobiphenyl
2FP 2-Fluorophenol
NBD5 Nitrobenzene-d5
PD5 Phenol-d5
TD14 Terphenyl-d14
H High
L Low
J Estimated

Based on the qualifying criteria listed in Table D-2 (TCEQ, 2002), the analytical results for the associated samples are not biased and do not need to be qualified.

Analytical Results

Detected

Concentrations detected below the method quantitation limit (MQL) but above the SQL were estimated values and flagged with a 'J'. The analytes detected in the environmental samples are listed in the data tables.

Non-detected: Non-detected results were reported as less than the value of the sample quantitation limit (SQL). The SQLs for the some analytes exceeded the regulatory limits. The laboratory should confirm that the most sensitive method available was used for these analytes. The MQLs may be used as the regulatory limit if the most sensitive method available was used and the SQLs are less than the MQLs.

ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121

12/30/2009

Greg Osuna
Alamo 1
10843 Gulfdale
San Antonio , TX - 78216
TEL: (210) 218-3271
FAX: (210) 820-3636 Email:

RE: LHAAP19-LFCA

Dear Greg Osuna: Order No.: 0911053

Enclosed please find the revised report updating the MDLs and PQLs with low level analysis. For soil samples Thallium and Bis(2-chloroethyl)ether respective MDL and PQL was updated with low level analysis. For Water samples, 4-Aminobiphenyl MDL and PQL was updated from low level analysis. Lowest possible reporting limits and MDLs was used to achieve project requirements.

Thank you,

Reddy Gosala

Laboratory Director

Report of Laboratory Analysis

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed clien
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NELAP Certificate# T104704367-09-TX

Alamo Analytical Laboratories, LTD

ANALYTICAL REPORT

JOB NUMBER 0911053

Prepared for

Alamo 1

Attn. Greg Osuna

Date: December 01,2009

Signature

12/1/09
Date

Name: Reddy Gosala
Title: Lab Director
E-Mail: Alamo_labs@sbcglobal.net

10526 Gulfdale San Antonio, TX 78216

Alamo Analytical Laboratories, LTD

TRRP Data Package Signature Page

Job Number: 0911053

Project Name/Number: LHAAP19-LFCA

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

[X] R1 Field Chain-of-Custody Form

[X] R2 Sample Identification Cross-reference;

[X] R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
- a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
- b) dilution factors,
- c) preparation methods,
- d) cleanup methods, and
- e) if required for the project, tentatively identified compounds (TICs).

[ ] R4 Surrogate Recovery Data including:
- a) Calculated recovery (%R), and
- b) The Laboratory's surrogate recovery limits.

[X] R5 Test Reports/Summary Forms for Blank Samples;

[X] R6 Test Reports/Summary Forms for Laboratory Control Smaples (LCSs) including:
- a) LCS Spiking amounts,
- b) Calculated %R for each analyte, and
- c) The Laboratory's LCS QC Limits

[ ] R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
- a) Samples associated with the MS/MSD clearly identified,
- b) MS/MSD spiking amounts,
- c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
- d) Calculated %Rs and relative percent differences (RPDs), and
- e) The Laboratory's MS/MSD QC Limits

[X] R8 Laboratory Analytical Duplicates (if applicable) Recovery and Precision, including:
- a) The amount of analyte measured in the duplicate,
- b) The calculated RPD, and
- c) the Laboratory's QC Limits for analytical duplicates.

[X] R9 Method Quamtation Limit (MQL) for each analyte for each method and matrix;

[X] R10 Other problems and anomalies

Release Statement: "I am responsible for the release of the data package. This laboratory data package has been reviewed and is complete and technically complaint with the requirements of the methods used, except where noted by the laboratory in the attched exception reports."

Reddy Gosala		Laboratory Director	12/2/09
Name (Printed)	Signature	Official Title (Printed)	Date

Alamo Analytical Laboratories, LTD

SAMPLE INFORMATION

Date: 12/1/2009

Job Number.: 0911053

Project Name...: LHAAP19-LFCA

Customer.....: Alamo 1

Attn.....: Greg Osuna

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
0911053-01A	TB1	Water	11/9/2009	9:24	11/12/2009	8:00
0911053-02A	B1 0-1'	Soil	11/11/2009	9:59	11/12/2009	8:00
0911053-03A	B1 14-15'	Soil	11/11/2009	10:09	11/12/2009	8:00
0911053-04A	B9 0-1'	Soil	11/11/2009	10:39	11/12/2009	8:00
0911053-05A	B9 14-15'	Soil	11/11/2009	10:49	11/12/2009	8:00
0911053-06A	B7 0-1'	Soil	11/11/2009	11:19	11/12/2009	8:00
0911053-07A	B7 14-15'	Soil	11/11/2009	11:28	11/12/2009	8:00

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna
Alamo Lab Job Order Number:	0911053	**Report Date:**	Date: 12/1/2009		

ClientSampID: TB1 **Sample Matrix:** Water **Date Received:** 11/12/2009

Sample Date: 11/9/2009 **Alamo Lab ID:** 0911053-01A **Time Received:** 8:00

Sample Time: 9:24 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 1.2300			1.2300	5.0000	1.2300	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,1,1-Trichloroethane	71-55-6	< 2.3100			2.3100	5.0000	2.3100	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.8740			0.8740	5.0000	0.8740	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.5600			1.5600	5.0000	1.5600	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,1-Dichloroethane	74-34-3	< 1.0400			1.0400	5.0000	1.0400	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,1-Dichloroethene	75-35-4	< 1.1000			1.1000	5.0000	1.1000	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,1-Dichloropropene	563-58-6	< 0.4500			0.4500	5.0000	0.4500	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 1.0900			1.0900	5.0000	1.0900	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,2,3-Trichloropropane	96-18-4	< 0.0550			0.0550	5.0000	0.0550	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 0.7640			0.7640	5.0000	0.7640	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 1.0300			1.0300	5.0000	1.0300	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 0.0065			0.0065	5.0000	0.0065	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,2-Dibromoethane	106-93-4	< 0.0420			0.0420	5.0000	0.0420	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7980			0.7980	5.0000	0.7980	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,2-Dichloroethane	107-06-2	< 0.9830			0.9830	5.0000	0.9830	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,2-Dichloropropane	78-87-5	< 0.6260			0.6260	5.0000	0.6260	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 0.9260			0.9260	5.0000	0.9260	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,3-Dichlorobenzene	541-73-1	< 1.3200			1.3200	5.0000	1.3200	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,3-Dichloropropane	142-28-9	< 0.5970			0.5970	5.0000	0.5970	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
1,4-Dichlorobenzene	106-46-7	< 1.0900			1.0900	5.0000	1.0900	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
2,2-Dichloropropane	590-20-7	< 1.3200			1.3200	5.0000	1.3200	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
2-Butanone	78-93-3	< 5.6300			5.6300	20.0000	5.6300	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
2-Chlorotoluene	95-49-8	< 0.9890			0.9890	5.0000	0.9890	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
2-Hexanone	591-78-6	< 2.0500			2.0500	10.0000	2.0500	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
4-Chlorotoluene	106-43-4	< 0.9700			0.9700	5.0000	0.9700	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
4-Isopropyltoluene	99-87-6	< 1.3100			1.3100	5.0000	1.3100	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.4700			1.4700	10.0000	1.4700	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Acetone	67-64-1	< 4.1100			4.1100	20.0000	4.1100	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Allyl chloride	107-05-1	< 1.2400			1.2400	5.0000	1.2400	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Benzene	71-43-2	< 0.6820			0.6820	5.0000	0.6820	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Bromobenzene	108-86-1	< 0.5510			0.5510	5.0000	0.5510	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Bromochloromethane	74-97-5	< 0.8440			0.8440	5.0000	0.8440	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Bromodichloromethane	75-27-4	< 0.9910			0.9910	5.0000	0.9910	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna
Alamo Lab Job Order Number:	0911053	**Report Date:**	Date: 12/1/2009		

ClientSampID:	TB1	**Sample Matrix:**	Water	**Date Received:**	11/12/2009
Sample Date:	11/9/2009	**Alamo Lab ID:**	0911053-01A	**Time Received:**	8:00
Sample Time:	9:24			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Bromoform	75-25-2	< 0.7740			0.7740	5.0000	0.7740	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Bromomethane	74-83-9	< 0.9830			0.9830	5.0000	0.9830	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Carbon disulfide	75-15-0	< 1.2500			1.2500	5.0000	1.2500	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Carbon tetrachloride	56-23-5	< 1.7200			1.7200	5.0000	1.7200	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Chlorobenzene	108-90-7	< 0.5300			0.5300	5.0000	0.5300	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Chloroethane	75-00-3	< 1.6600			1.6600	5.0000	1.6600	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Chloroform	67-66-3	< 1.4500			1.4500	5.0000	1.4500	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Chloromethane	74-87-3	< 0.8100			0.8100	5.0000	0.8100	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.8000			1.8000	5.0000	1.8000	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 0.4200			0.4200	5.0000	0.4200	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Dibromochloromethane	124-48-1	< 1.2900			1.2900	5.0000	1.2900	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Dibromomethane	74-95-3	< 2.3000			2.3000	5.0000	2.3000	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Dichlorodifluoromethane	75-71-8	< 3.8000			3.8000	5.0000	3.8000	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Ethylbenzene	100-41-4	< 0.9500			0.9500	5.0000	0.9500	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Hexachlorobutadiene	87-68-3	< 1.2400			1.2400	5.0000	1.2400	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Iodomethane	74-88-4	< 1.2300			1.2300	5.0000	1.2300	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Isopropylbenzene	98-82-8	< 2.0800			2.0800	5.0000	2.0800	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
m,p-Xylene	179601-23-	< 2.0300			2.0300	10.0000	2.0300	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Methyl tert-butyl ether	1634-04-4	< 2.0100			2.0100	5.0000	2.0100	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Methylene chloride	75-09-2	< 1.3200			1.3200	20.0000	1.3200	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
n-Butylbenzene	104-51-8	< 1.3200			1.3200	5.0000	1.3200	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
n-Propylbenzene	103-65-1	< 0.9330			0.9330	5.0000	0.9330	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Naphthalene	91-20-3	< 2.4200			2.4200	10.0000	2.4200	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
o-Xylene	95-47-6	< 0.7260			0.7260	5.0000	0.7260	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
sec-Butylbenzene	135-98-8	< 0.8820			0.8820	5.0000	0.8820	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Styrene	100-42-5	< 0.5130			0.5130	5.0000	0.5130	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
tert-Butylbenzene	98-06-6	< 1.2800			1.2800	5.0000	1.2800	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Tetrachloroethene	127-18-4	< 1.5300			1.5300	5.0000	1.5300	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Toluene	108-88-3	< 0.7250			0.7250	5.0000	0.7250	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.5800			1.5800	5.0000	1.5800	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.3100			1.3100	10.0000	1.3100	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Trichloroethene	79-01-6	< 1.3900			1.3900	5.0000	1.3900	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM
Trichlorofluoromethane	75-69-4	< 1.3700			1.3700	5.0000	1.3700	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: TB1 **Sample Matrix:** Water **Date Received:** 11/12/2009

Sample Date: 11/9/2009 **Alamo Lab ID:** 0911053-01A **Time Received:** 8:00

Sample Time: 9:24 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Vinyl chloride	75-01-4	< 0.9310			0.9310	2.0000	0.9310	ug/L	11/18/2009 8:54:00 P	VOC1_091118A	1	VKG	11/18/2009 8:54:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B1 0-1' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-02A **Time Received:** 8:00

Sample Time: 9:59 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		17			0.0000	0.1000	0.0000	wt%	11/13/2009	PMOIST-11/12/2009	1	SS	11/12/2009
SW6010B													
Aluminum	7429-90-5	26100.0000			0.5560	2.5000	0.6683	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Antimony	7440-36-0	< 0.8233			0.6850	2.5000	0.8233	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Arsenic	7440-38-2	5.5900			0.6890	1.5000	0.8281	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Barium	7440-39-3	142.0000			0.2100	1.0000	0.2524	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Beryllium	7440-41-7	0.7370			0.0440	0.2000	0.0529	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Cadmium	7440-43-9	< 0.0841			0.0700	0.5000	0.0841	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Calcium	7440-70-2	788.0000			1.5000	5.0000	1.8029	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Chromium	7440-47-3	20.7000			0.2210	1.0000	0.2656	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Cobalt	7440-48-4	4.2200			0.3700	1.0000	0.4447	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Copper	7440-50-8	5.7900			0.4470	1.0000	0.5373	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Iron	7439-89-6	26200.0000			0.9860	2.0000	1.1851	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Lead	7439-92-1	12.5000			0.4500	1.5000	0.5409	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Magnesium	7439-95-4	1570.0000			1.1800	5.0000	1.4183	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Manganese	7439-96-5	28.5000			1.2500	5.0000	1.5024	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Nickel	7440-02-0	11.7000			0.4790	1.0000	0.5757	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Potassium	7440-09-7	1160.0000			4.7100	25.0000	5.6611	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Selenium	7782-49-2	< 0.9375			0.7800	2.0000	0.9375	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Silver	7440-22-4	< 0.5769			0.4800	1.0000	0.5769	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Sodium	7440-23-5	22.7000			2.1000	5.0000	2.5240	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Strontium	7440-24-6	< 0.5168			0.4300	1.0000	0.5168	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Thallium	7440-28-0	< 1.7199			1.4700	5.0000	1.7199	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Vanadium	7440-62-2	40.6000			0.7500	2.0000	0.9014	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Zinc	7440-66-6	33.1000			0.4300	1.0000	0.5168	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.3317			0.2760	1.0000	0.3317	mg/kg	11/19/2009	CR6_S-11/19/2009	20	SS	11/19/2009
SW7471A													
Mercury	7439-97-6	< 0.0464			0.0386	0.0400	0.0464	mg/Kg	11/12/2009 2:35:00 P	HG_R_S-11/12/2009	1	DW	11/12/2009 10:30:00 AM
SW8260B													
1,1-Dichloropropene	563-58-6	< 0.6502			0.5410	1.0000	0.6502	ug/Kg	11/21/2009 2:08:00 A	VOC1_091121A	1	VKG	11/21/2009 2:08:00 AM
1,1,1,2-Tetrachloroethane	630-20-6	< 1.4904			1.2400	5.0000	1.4904	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 0.0939			0.0781	0.2500	0.0939	ug/Kg	11/21/2009 2:08:00 A	VOC1_091121A	1	VKG	11/21/2009 2:08:00 AM

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TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna
Alamo Lab Job Order Number:	0911053	**Report Date:**	Date: 12/1/2009		
ClientSampID:	B1 0-1'	**Sample Matrix:**	Soil	**Date Received:**	11/12/2009
Sample Date:	11/11/2009	**Alamo Lab ID:**	0911053-02A	**Time Received:**	8:00
Sample Time:	9:59			**Dry Weight Corrected:**	Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1,1-Trichloroethane	71-55-6	< 2.0793			1.7300	5.0000	2.0793	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 0.6070			0.5050	1.0000	0.6070	ug/Kg	11/21/2009 2:08:00 A	VOC1_091121A	1	VKG	11/21/2009 2:08:00 AM
1,1,2,2-Tetrachloroethane	79-34-5	< 1.0000			0.8320	5.0000	1.0000	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,2-Dibromoethane	106-93-4	< 0.0607			0.0505	0.2500	0.0607	ug/Kg	11/21/2009 2:08:00 A	VOC1_091121A	1	VKG	11/21/2009 2:08:00 AM
1,1,2-Trichloroethane	79-00-5	< 1.6346			1.3600	5.0000	1.6346	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,2,3-Trichloropropane	96-18-4	< 0.0794			0.0661	0.2500	0.0794	ug/Kg	11/21/2009 2:08:00 A	VOC1_091121A	1	VKG	11/21/2009 2:08:00 AM
1,1-Dichloroethane	74-34-3	< 1.5144			1.2600	5.0000	1.5144	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,1-Dichloroethene	75-35-4	< 1.7428			1.4500	5.0000	1.7428	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,1-Dichloropropene	563-58-6	< 1.1442			0.9520	5.0000	1.1442	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 1.4784			1.2300	5.0000	1.4784	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.8750			1.5600	5.0000	1.8750	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 2.7764			2.3100	5.0000	2.7764	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 1.1022			0.9170	5.0000	1.1022	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 2.5240			2.1000	5.0000	2.5240	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,2-Dibromoethane	106-93-4	< 1.2861			1.0700	5.0000	1.2861	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,2-Dichlorobenzene	95-50-1	< 1.0745			0.8940	5.0000	1.0745	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,2-Dichloroethane	107-06-2	< 1.1719			0.9750	5.0000	1.1719	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,2-Dichloropropane	78-87-5	< 1.5024			1.2500	5.0000	1.5024	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 1.2861			1.0700	5.0000	1.2861	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,3-Dichlorobenzene	541-73-1	< 1.3582			1.1300	5.0000	1.3582	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,3-Dichloropropane	142-28-9	< 1.0084			0.8390	5.0000	1.0084	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1,4-Dichlorobenzene	106-46-7	< 1.1010			0.9160	5.0000	1.1010	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
1-Chlorohexane	544-10-5	< 0.7344			0.6110	5.0000	0.7344	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
2,2-Dichloropropane	590-20-7	< 1.3822			1.1500	5.0000	1.3822	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
2-Butanone	78-93-3	< 0.7320			0.6090	10.0000	0.7320	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
2-Chlorotoluene	95-49-8	< 1.8149			1.5100	5.0000	1.8149	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
2-Hexanone	591-78-6	< 1.1382			0.9470	10.0000	1.1382	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
4-Chlorotoluene	106-43-4	< 1.4543			1.2100	5.0000	1.4543	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
4-Isopropyltoluene	99-87-6	< 3.8582			3.2100	5.0000	3.8582	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
4-Methyl-2-pentanone	108-10-1	< 2.4880			2.0700	10.0000	2.4880	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Acetone	67-64-1	< 1.9832			1.6500	10.0000	1.9832	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Allyl chloride	107-05-1	< 4.1947			3.4900	5.0000	4.1947	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Benzene	71-43-2	< 1.0060			0.8370	5.0000	1.0060	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM

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TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna
Alamo Lab Job Order Number:	0911053	**Report Date:**	Date: 12/1/2009		

ClientSampID:	B1 0-1'	**Sample Matrix:**	Soil	**Date Received:**	11/12/2009
Sample Date:	11/11/2009	**Alamo Lab ID:**	0911053-02A	**Time Received:**	8:00
Sample Time:	9:59			**Dry Weight Corrected:**	Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Bromobenzene	108-86-1	< 1.8630			1.5500	5.0000	1.8630	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Bromochloromethane	74-97-5	< 1.6947			1.4100	5.0000	1.6947	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Bromodichloromethane	75-27-4	< 1.5625			1.3000	5.0000	1.5625	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Bromoform	75-25-2	< 1.1418			0.9500	5.0000	1.1418	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Bromomethane	74-83-9	< 2.0913			1.7400	5.0000	2.0913	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Carbon disulfide	75-15-0	< 1.4183			1.1800	5.0000	1.4183	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Carbon tetrachloride	56-23-5	< 1.2620			1.0500	5.0000	1.2620	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Chlorobenzene	108-90-7	< 1.6707			1.3900	5.0000	1.6707	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Chloroethane	75-00-3	< 1.2500			1.0400	5.0000	1.2500	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Chloroform	67-66-3	< 1.7428			1.4500	5.0000	1.7428	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Chloromethane	74-87-3	< 1.5264			1.2700	5.0000	1.5264	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.5865			1.3200	5.0000	1.5865	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.7428			1.4500	5.0000	1.7428	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Dibromochloromethane	124-48-1	< 1.3702			1.1400	5.0000	1.3702	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Dibromomethane	74-95-3	< 2.3317			1.9400	5.0000	2.3317	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Dichlorodifluoromethane	75-71-8	< 2.9207			2.4300	5.0000	2.9207	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Ethylbenzene	100-41-4	< 1.3822			1.1500	5.0000	1.3822	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Hexachlorobutadiene	87-68-3	< 3.2692			2.7200	5.0000	3.2692	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Iodomethane	74-88-4	< 1.7909			1.4900	5.0000	1.7909	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Isopropylbenzene	98-82-8	< 1.8149			1.5100	5.0000	1.8149	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
m,p-Xylene	179601-23-	< 1.7428			1.4500	10.0000	1.7428	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Methyl tert-butyl ether	1634-04-4	< 1.4063			1.1700	5.0000	1.4063	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Methylene chloride	75-09-2	< 3.4615			2.8800	5.0000	3.4615	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
n-Butylbenzene	104-51-8	< 1.2260			1.0200	5.0000	1.2260	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
n-Propylbenzene	103-65-1	< 1.6707			1.3900	5.0000	1.6707	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Naphthalene	91-20-3	< 1.4784			1.2300	15.0000	1.4784	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
o-Xylene	95-47-6	< 1.4063			1.1700	5.0000	1.4063	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
sec-Butylbenzene	135-98-8	< 2.3077			1.9200	5.0000	2.3077	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Styrene	100-42-5	< 1.4423			1.2000	5.0000	1.4423	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
tert-Butylbenzene	98-06-6	< 1.8149			1.5100	5.0000	1.8149	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Tetrachloroethene	127-18-4	< 1.2861			1.0700	5.0000	1.2861	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Toluene	108-88-3	< 1.0673			0.8880	5.0000	1.0673	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.5505			1.2900	5.0000	1.5505	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM

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TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna
Alamo Lab Job Order Number:	0911053	**Report Date:**	Date: 12/1/2009		

ClientSampID:	B1 0-1'	**Sample Matrix:**	Soil	**Date Received:**	11/12/2009
Sample Date:	11/11/2009	**Alamo Lab ID:**	0911053-02A	**Time Received:**	8:00
Sample Time:	9:59			**Dry Weight Corrected:**	Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
trans-1,3-Dichloropropene	10061-02-9	< 1.8389			1.5300	10.0000	1.8389	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Trichloroethene	79-01-6	< 1.2740			1.0600	5.0000	1.2740	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Trichlorofluoromethane	75-69-4	< 2.4159			2.0100	5.0000	2.4159	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
Vinyl chloride	75-01-4	< 1.5986			1.3300	2.0000	1.5986	ug/Kg	11/16/2009 6:00:00 P	VOC1_091116A	1	VKG	11/16/2009 6:00:00 PM
SW8270C													
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1599			0.1330	0.3300	0.1599	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2,4-Trichlorobenzene	120-82-1	< 0.0523			0.0435	0.3300	0.0523	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0754			0.0627	0.3300	0.0754	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0111			0.0092	0.0330	0.0111	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[a]anthracene	56-55-3	< 0.0212			0.0176	0.0660	0.0212	mg/Kg	12/1/2009 1:51:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
Benzo[a]pyrene	50-32-8	< 0.0112			0.0093	0.0300	0.0112	mg/Kg	12/1/2009 1:51:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0839			0.0698	0.3300	0.0839	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[b]fluoranthene	205-99-2	< 0.0145			0.0121	0.0300	0.0145	mg/Kg	12/1/2009 1:51:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0769			0.0640	0.3300	0.0769	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.2043			0.1700	0.3300	0.2043	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[k]fluoranthene	207-08-9	< 0.0159			0.0132	0.0300	0.0159	mg/Kg	12/1/2009 1:51:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0232			0.0193	0.3300	0.0232	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0313			0.0260	0.3300	0.0313	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenz[a,h]anthracene	53-70-3	< 0.0095			0.0079	0.0300	0.0095	mg/Kg	12/1/2009 1:51:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0500			0.0416	0.3300	0.0500	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0323			0.0269	0.3300	0.0323	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1322			0.1100	0.3300	0.1322	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Indeno[1,2,3-cd]pyrene	193-39-5	< 0.0240			0.0200	0.0300	0.0240	mg/Kg	12/1/2009 1:51:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0151			0.0126	0.0330	0.0151	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0500			0.0416	0.3300	0.0500	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0332			0.0276	0.3300	0.0332	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0401			0.0334	0.3300	0.0401	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0471			0.0392	0.3300	0.0471	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1683			0.1400	0.3300	0.1683	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0526			0.0438	0.3300	0.0526	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0251			0.0209	0.0660	0.0251	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0347			0.0289	0.3300	0.0347	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0481			0.0400	0.3300	0.0481	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B1 0-1' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-02A **Time Received:** 8:00

Sample Time: 9:59 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
3,3´-Dichlorobenzidine	91-94-1	< 0.0219			0.0182	0.0660	0.0219	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0847			0.0705	0.3300	0.0847	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1322			0.1100	0.3300	0.1322	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0108			0.0090	0.0330	0.0108	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0482			0.0401	0.3300	0.0482	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0504			0.0419	0.3300	0.0504	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0061			0.0051	0.0330	0.0061	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0630			0.0524	0.3300	0.0630	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1394			0.1160	0.3300	0.1394	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0708			0.0589	0.3300	0.0708	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1671			0.1390	0.3300	0.1671	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1454			0.1210	0.3300	0.1454	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1743			0.1450	0.3300	0.1743	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Aniline	62-53-3	< 0.2933			0.2440	0.6600	0.2933	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1322			0.1100	0.3300	0.1322	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzidine	92-87-5	< 0.0469			0.0390	0.1000	0.0469	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0262			0.0218	0.3300	0.0262	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0677			0.0563	0.3300	0.0677	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0969			0.0806	0.3300	0.0969	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1322			0.1100	0.3300	0.1322	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0430			0.0358	0.3300	0.0430	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3413			0.2840	0.6600	0.3413	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1911			0.1590	0.6600	0.1911	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.0109			0.0091	0.0330	0.0109	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 0.0150			0.0128	0.0330	0.0150	mg/Kg	12/1/2009 1:51:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1767			0.1470	0.3300	0.1767	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1623			0.1350	0.3300	0.1623	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1647			0.1370	0.3300	0.1647	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1442			0.1200	0.3300	0.1442	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1514			0.1260	0.3300	0.1514	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Di-n-octyl phthalate	117-84-0	< 0.2007			0.1670	0.3300	0.2007	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 0.1111			0.0924	0.3300	0.1111	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1502			0.1250	0.3300	0.1502	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B1 0-1' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-02A **Time Received:** 8:00

Sample Time: 9:59 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Diethyl phthalate	84-66-2	< 0.1490			0.1240	0.3300	0.1490	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1538			0.1280	0.3300	0.1538	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.1042			0.0867	0.3300	0.1042	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1514			0.1260	0.3300	0.1514	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0156			0.0130	0.0330	0.0156	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1334			0.1110	0.3300	0.1334	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1478			0.1230	0.3300	0.1478	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1067			0.0888	0.3300	0.1067	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1157			0.0963	0.3300	0.1157	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1099			0.0914	0.3300	0.1099	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0115			0.0096	0.0330	0.0115	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0121			0.0101	0.0330	0.0121	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0874			0.0727	0.3300	0.0874	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1719			0.1430	0.3300	0.1719	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1743			0.1450	0.3300	0.1743	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.0505			0.0420	0.3300	0.0505	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1151			0.0958	0.3300	0.1151	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Phenol	108-95-2	< 0.1695			0.1410	0.3300	0.1695	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0962			0.0800	0.3300	0.0962	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1899			0.1580	0.3300	0.1899	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2885			0.2400	0.6600	0.2885	mg/Kg	11/30/2009 3:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 5.3486			4.4500	10.0000	5.3486	mg/Kg	11/17/2009	CN_R_TS-11/17/2009	10	SS	11/17/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B1 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-03A **Time Received:** 8:00

Sample Time: 10:09 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		8			0.0000	0.1000	0.0000	wt%	11/13/2009	PMOIST-11/12/2009	1	SS	11/12/2009
SW6010B													
Aluminum	7429-90-5	5990.0000			0.5560	2.5000	0.6015	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Antimony	7440-36-0	< 0.7411			0.6850	2.5000	0.7411	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Arsenic	7440-38-2	< 0.7454			0.6890	1.5000	0.7454	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Barium	7440-39-3	35.3000			0.2100	1.0000	0.2272	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Beryllium	7440-41-7	0.3740			0.0440	0.2000	0.0476	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Cadmium	7440-43-9	< 0.0757			0.0700	0.5000	0.0757	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Calcium	7440-70-2	832.0000			1.5000	5.0000	1.6228	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Chromium	7440-47-3	7.3700			0.2210	1.0000	0.2391	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Cobalt	7440-48-4	2.4700			0.3700	1.0000	0.4003	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Copper	7440-50-8	2.4500			0.4470	1.0000	0.4836	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Iron	7439-89-6	8820.0000			0.9860	2.0000	1.0668	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Lead	7439-92-1	5.5900			0.4500	1.5000	0.4869	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Magnesium	7439-95-4	1180.0000			1.1800	5.0000	1.2766	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Manganese	7439-96-5	29.2000			1.2500	5.0000	1.3524	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Nickel	7440-02-0	6.9800			0.4790	1.0000	0.5182	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Potassium	7440-09-7	369.0000			4.7100	25.0000	5.0957	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Selenium	7782-49-2	< 0.8439			0.7800	2.0000	0.8439	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Silver	7440-22-4	< 0.5193			0.4800	1.0000	0.5193	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Sodium	7440-23-5	481.0000			2.1000	5.0000	2.2720	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Strontium	7440-24-6	< 0.4652			0.4300	1.0000	0.4652	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Thallium	7440-28-0	< 1.5876			1.4700	5.0000	1.5876	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Vanadium	7440-62-2	13.1000			0.7500	2.0000	0.8114	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Zinc	7440-66-6	18.5000			0.4300	1.0000	0.4652	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2694			0.2490	1.0000	0.2694	mg/kg	11/19/2009	CR6_S-11/19/2009	20	SS	11/19/2009
SW7471A													
Mercury	7439-97-6	< 0.0274			0.0253	0.0400	0.0274	mg/Kg	11/12/2009 2:35:00 P	HG_R_S-11/12/2009	1	DW	11/12/2009 10:30:00 AM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 1.0819			1.0000	5.0000	1.0819	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,1-Dichloropropene	563-58-6	< 0.5269			0.4870	1.0000	0.5269	ug/Kg	11/21/2009 3:17:00 A	VOC1_091121A	1	VKG	11/21/2009 3:17:00 AM
1,2-Dibromo-3-chloropropane	96-12-8	< 0.0761			0.0703	0.2500	0.0761	ug/Kg	11/21/2009 3:17:00 A	VOC1_091121A	1	VKG	11/21/2009 3:17:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna
Alamo Lab Job Order Number:	0911053			**Report Date:**	Date: 12/1/2009

ClientSampID:	B1 14-15'	**Sample Matrix:**	Soil	**Date Received:**	11/12/2009
Sample Date:	11/11/2009	**Alamo Lab ID:**	0911053-03A	**Time Received:**	8:00
Sample Time:	10:09			**Dry Weight Corrected:**	Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1,1-Trichloroethane	71-55-6	< 1.5255			1.4100	5.0000	1.5255	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 0.4912			0.4540	1.0000	0.4912	ug/Kg	11/21/2009 3:17:00 A	VOC1_091121A	1	VKG	11/21/2009 3:17:00 AM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.7292			0.6740	5.0000	0.7292	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,2-Dibromoethane	106-93-4	< 0.0491			0.0454	0.2500	0.0491	ug/Kg	11/21/2009 3:17:00 A	VOC1_091121A	1	VKG	11/21/2009 3:17:00 AM
1,1,2-Trichloroethane	79-00-5	< 1.1901			1.1000	5.0000	1.1901	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,2,3-Trichloropropane	96-18-4	< 0.0644			0.0595	0.2500	0.0644	ug/Kg	11/21/2009 3:17:00 A	VOC1_091121A	1	VKG	11/21/2009 3:17:00 AM
1,1-Dichloroethane	74-34-3	< 1.1035			1.0200	5.0000	1.1035	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,1-Dichloroethene	75-35-4	< 1.2766			1.1800	5.0000	1.2766	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,1-Dichloropropene	563-58-6	< 0.8341			0.7710	5.0000	0.8341	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 1.0797			0.9980	5.0000	1.0797	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.3740			1.2700	5.0000	1.3740	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 2.0232			1.8700	5.0000	2.0232	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.8039			0.7430	5.0000	0.8039	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.8500			1.7100	5.0000	1.8500	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,2-Dibromoethane	106-93-4	< 0.9402			0.8690	5.0000	0.9402	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7844			0.7250	5.0000	0.7844	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,2-Dichloroethane	107-06-2	< 0.8547			0.7900	5.0000	0.8547	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,2-Dichloropropane	78-87-5	< 1.0927			1.0100	5.0000	1.0927	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 0.9380			0.8670	5.0000	0.9380	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.9910			0.9160	5.0000	0.9910	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,3-Dichloropropane	142-28-9	< 0.7368			0.6810	5.0000	0.7368	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.8028			0.7420	5.0000	0.8028	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
1-Chlorohexane	544-10-5	< 0.5366			0.4960	5.0000	0.5366	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
2,2-Dichloropropane	590-20-7	< 1.0083			0.9320	5.0000	1.0083	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
2-Butanone	78-93-3	< 0.5345			0.4940	10.0000	0.5345	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
2-Chlorotoluene	95-49-8	< 1.3307			1.2300	5.0000	1.3307	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
2-Hexanone	591-78-6	< 0.8309			0.7680	10.0000	0.8309	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
4-Chlorotoluene	106-43-4	< 1.0657			0.9850	5.0000	1.0657	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
4-Isopropyltoluene	99-87-6	< 2.8129			2.6000	5.0000	2.8129	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.8176			1.6800	10.0000	1.8176	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Acetone	67-64-1	< 1.4389			1.3300	10.0000	1.4389	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Allyl chloride	107-05-1	< 3.0510			2.8200	5.0000	3.0510	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Benzene	71-43-2	< 0.7324			0.6770	5.0000	0.7324	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B1 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-03A **Time Received:** 8:00

Sample Time: 10:09 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Bromobenzene	108-86-1	< 1.3632			1.2600	5.0000	1.3632	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Bromochloromethane	74-97-5	< 1.2334			1.1400	5.0000	1.2334	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Bromodichloromethane	75-27-4	< 1.1360			1.0500	5.0000	1.1360	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Bromoform	75-25-2	< 0.8320			0.7690	5.0000	0.8320	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Bromomethane	74-83-9	< 1.5363			1.4200	5.0000	1.5363	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Carbon disulfide	75-15-0	< 1.0321			0.9540	5.0000	1.0321	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Carbon tetrachloride	56-23-5	< 0.9239			0.8540	5.0000	0.9239	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Chlorobenzene	108-90-7	< 1.2334			1.1400	5.0000	1.2334	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Chloroethane	75-00-3	< 0.9142			0.8450	5.0000	0.9142	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Chloroform	67-66-3	< 1.2766			1.1800	5.0000	1.2766	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Chloromethane	74-87-3	< 1.1144			1.0300	5.0000	1.1144	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.1576			1.0700	5.0000	1.1576	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.2766			1.1800	5.0000	1.2766	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Dibromochloromethane	124-48-1	< 0.9997			0.9240	5.0000	0.9997	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Dibromomethane	74-95-3	< 1.6986			1.5700	5.0000	1.6986	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Dichlorodifluoromethane	75-71-8	< 2.1313			1.9700	5.0000	2.1313	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Ethylbenzene	100-41-4	< 1.0116			0.9350	5.0000	1.0116	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Hexachlorobutadiene	87-68-3	< 2.3802			2.2000	5.0000	2.3802	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Iodomethane	74-88-4	< 1.2983			1.2000	5.0000	1.2983	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Isopropylbenzene	98-82-8	< 1.3307			1.2300	5.0000	1.3307	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
m,p-Xylene	179601-23-	< 1.2766			1.1800	10.0000	1.2766	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Methyl tert-butyl ether	1634-04-4	< 1.0213			0.9440	5.0000	1.0213	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Methylene chloride	75-09-2	< 2.5316			2.3400	5.0000	2.5316	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
n-Butylbenzene	104-51-8	< 0.8969			0.8290	5.0000	0.8969	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
n-Propylbenzene	103-65-1	< 1.2225			1.1300	5.0000	1.2225	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Naphthalene	91-20-3	< 1.0754			0.9940	15.0000	1.0754	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
o-Xylene	95-47-6	< 1.0235			0.9460	5.0000	1.0235	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
sec-Butylbenzene	135-98-8	< 1.6878			1.5600	5.0000	1.6878	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Styrene	100-42-5	< 1.0570			0.9770	5.0000	1.0570	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
tert-Butylbenzene	98-06-6	< 1.3307			1.2300	5.0000	1.3307	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Tetrachloroethene	127-18-4	< 0.9369			0.8660	5.0000	0.9369	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Toluene	108-88-3	< 0.7779			0.7190	5.0000	0.7779	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.1360			1.0500	5.0000	1.1360	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B1 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-03A **Time Received:** 8:00

Sample Time: 10:09 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
trans-1,3-Dichloropropene	10061-02-9	< 1.3416			1.2400	10.0000	1.3416	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Trichloroethene	79-01-6	< 0.9261			0.8560	5.0000	0.9261	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Trichlorofluoromethane	75-69-4	< 1.7527			1.6200	5.0000	1.7527	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
Vinyl chloride	75-01-4	< 1.1685			1.0800	2.0000	1.1685	ug/Kg	11/16/2009 6:44:00 P	VOC1_091116A	1	VKG	11/16/2009 6:44:00 PM
SW8270C													
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1439			0.1330	0.3300	0.1439	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2,4-Trichlorobenzene	120-82-1	< 0.0471			0.0435	0.3300	0.0471	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0678			0.0627	0.3300	0.0678	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[a]anthracene	56-55-3	< 0.0190			0.0176	0.0660	0.0190	mg/Kg	12/1/2009 2:30:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0100			0.0092	0.0330	0.0100	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[a]pyrene	50-32-8	< 0.0101			0.0093	0.0300	0.0101	mg/Kg	12/1/2009 2:30:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0755			0.0698	0.3300	0.0755	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[b]fluoranthene	205-99-2	< 0.0131			0.0121	0.0300	0.0131	mg/Kg	12/1/2009 2:30:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0692			0.0640	0.3300	0.0692	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.1839			0.1700	0.3300	0.1839	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0209			0.0193	0.3300	0.0209	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[k]fluoranthene	207-08-9	< 0.0143			0.0132	0.0300	0.0143	mg/Kg	12/1/2009 2:30:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0281			0.0260	0.3300	0.0281	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0450			0.0416	0.3300	0.0450	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenz[a,h]anthracene	53-70-3	< 0.0085			0.0079	0.0300	0.0085	mg/Kg	12/1/2009 2:30:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0291			0.0269	0.3300	0.0291	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1190			0.1100	0.3300	0.1190	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Indeno[1,2,3-cd]pyrene	193-39-5	< 0.0216			0.0200	0.0300	0.0216	mg/Kg	12/1/2009 2:30:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0136			0.0126	0.0330	0.0136	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0450			0.0416	0.3300	0.0450	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0299			0.0276	0.3300	0.0299	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0361			0.0334	0.3300	0.0361	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0424			0.0392	0.3300	0.0424	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1515			0.1400	0.3300	0.1515	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0474			0.0438	0.3300	0.0474	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0226			0.0209	0.0660	0.0226	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0313			0.0289	0.3300	0.0313	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0433			0.0400	0.3300	0.0433	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B1 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-03A **Time Received:** 8:00

Sample Time: 10:09 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
3,3´-Dichlorobenzidine	91-94-1	< 0.0197			0.0182	0.0660	0.0197	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0763			0.0705	0.3300	0.0763	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1190			0.1100	0.3300	0.1190	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0097			0.0090	0.0330	0.0097	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0434			0.0401	0.3300	0.0434	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0453			0.0419	0.3300	0.0453	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0055			0.0051	0.0330	0.0055	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0567			0.0524	0.3300	0.0567	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1255			0.1160	0.3300	0.1255	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0637			0.0589	0.3300	0.0637	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1504			0.1390	0.3300	0.1504	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1309			0.1210	0.3300	0.1309	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1569			0.1450	0.3300	0.1569	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Aniline	62-53-3	< 0.2640			0.2440	0.6600	0.2640	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1190			0.1100	0.3300	0.1190	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzidine	92-87-5	< 0.0422			0.0390	0.1000	0.0422	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0236			0.0218	0.3300	0.0236	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0609			0.0563	0.3300	0.0609	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0872			0.0806	0.3300	0.0872	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1190			0.1100	0.3300	0.1190	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0387			0.0358	0.3300	0.0387	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3073			0.2840	0.6600	0.3073	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1720			0.1590	0.6600	0.1720	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.0098			0.0091	0.0330	0.0098	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 0.0138			0.0128	0.0330	0.0138	mg/Kg	12/1/2009 2:30:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1590			0.1470	0.3300	0.1590	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1461			0.1350	0.3300	0.1461	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1482			0.1370	0.3300	0.1482	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1298			0.1200	0.3300	0.1298	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1363			0.1260	0.3300	0.1363	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Di-n-octyl phthalate	117-84-0	< 0.1807			0.1670	0.3300	0.1807	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 0.1000			0.0924	0.3300	0.1000	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1352			0.1250	0.3300	0.1352	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B1 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-03A **Time Received:** 8:00

Sample Time: 10:09 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Diethyl phthalate	84-66-2	< 0.1342			0.1240	0.3300	0.1342	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1385			0.1280	0.3300	0.1385	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.0938			0.0867	0.3300	0.0938	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1363			0.1260	0.3300	0.1363	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0141			0.0130	0.0330	0.0141	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1201			0.1110	0.3300	0.1201	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1331			0.1230	0.3300	0.1331	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.0961			0.0888	0.3300	0.0961	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1042			0.0963	0.3300	0.1042	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Isophorone	78-59-1	< 0.0989			0.0914	0.3300	0.0989	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0104			0.0096	0.0330	0.0104	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0109			0.0101	0.0330	0.0109	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0787			0.0727	0.3300	0.0787	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1547			0.1430	0.3300	0.1547	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1569			0.1450	0.3300	0.1569	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.0454			0.0420	0.3300	0.0454	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1036			0.0958	0.3300	0.1036	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Phenol	108-95-2	< 0.1525			0.1410	0.3300	0.1525	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0866			0.0800	0.3300	0.0866	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1709			0.1580	0.3300	0.1709	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2597			0.2400	0.6600	0.2597	mg/Kg	11/30/2009 5:47:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 4.3276			4.0000	10.0000	4.3276	mg/Kg	11/17/2009	CN_R_TS-11/17/2009	10	SS	11/17/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B9 0-1' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-04A **Time Received:** 8:00

Sample Time: 10:39 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		15			0.0000	0.1000	0.0000	wt%	11/13/2009	PMOIST-11/12/2009	1	SS	11/12/2009
SW6010B													
Aluminum	7429-90-5	10600.0000			0.5560	2.5000	0.6518	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Antimony	7440-36-0	< 0.8030			0.6850	2.5000	0.8030	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Arsenic	7440-38-2	< 0.8077			0.6890	1.5000	0.8077	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Barium	7440-39-3	73.4000			0.2100	1.0000	0.2462	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Beryllium	7440-41-7	0.6730			0.0440	0.2000	0.0516	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Cadmium	7440-43-9	< 0.0821			0.0700	0.5000	0.0821	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Calcium	7440-70-2	449.0000			1.5000	5.0000	1.7585	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Chromium	7440-47-3	15.1000			0.2210	1.0000	0.2591	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Cobalt	7440-48-4	6.9400			0.3700	1.0000	0.4338	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Copper	7440-50-8	< 0.5240			0.4470	1.0000	0.5240	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Iron	7439-89-6	14200.0000			0.9860	2.0000	1.1559	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Lead	7439-92-1	8.7800			0.4500	1.5000	0.5275	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Magnesium	7439-95-4	566.0000			1.1800	5.0000	1.3834	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Manganese	7439-96-5	234.0000			1.2500	5.0000	1.4654	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Nickel	7440-02-0	5.1900			0.4790	1.0000	0.5615	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Potassium	7440-09-7	428.0000			4.7100	25.0000	5.5217	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Selenium	7782-49-2	< 0.9144			0.7800	2.0000	0.9144	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Silver	7440-22-4	< 0.5627			0.4800	1.0000	0.5627	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Sodium	7440-23-5	< 2.4619			2.1000	5.0000	2.4619	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Strontium	7440-24-6	< 0.5041			0.4300	1.0000	0.5041	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Thallium	7440-28-0	< 1.6905			1.4700	5.0000	1.6905	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Vanadium	7440-62-2	30.1000			0.7500	2.0000	0.8792	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Zinc	7440-66-6	12.3000			0.4300	1.0000	0.5041	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.3165			0.2700	1.0000	0.3165	mg/kg	11/19/2009	CR6_S-11/19/2009	1	SS	11/19/2009
SW7471A													
Mercury	7439-97-6	< 0.0409			0.0349	0.0400	0.0409	mg/Kg	11/12/2009 2:35:00 P	HG_R_S-11/12/2009	1	DW	11/12/2009 10:30:00 AM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 1.3834			1.1800	5.0000	1.3834	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,1-Dichloropropene	563-58-6	< 0.6190			0.5280	1.0000	0.6190	ug/Kg	11/21/2009 3:55:00 A	VOC1_091121A	1	VKG	11/21/2009 3:55:00 AM
1,2-Dibromo-3-chloropropane	96-12-8	< 0.0893			0.0762	0.2500	0.0893	ug/Kg	11/21/2009 3:55:00 A	VOC1_091121A	1	VKG	11/21/2009 3:55:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna
Alamo Lab Job Order Number:	0911053	**Report Date:**	Date: 12/1/2009		

ClientSampID:	B9 0-1'	**Sample Matrix:**	Soil	**Date Received:**	11/12/2009
Sample Date:	11/11/2009	**Alamo Lab ID:**	0911053-04A	**Time Received:**	8:00
Sample Time:	10:39			**Dry Weight Corrected:**	Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1,1-Trichloroethane	71-55-6	< 1.9343			1.6500	5.0000	1.9343	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.9273			0.7910	5.0000	0.9273	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 0.5768			0.4920	1.0000	0.5768	ug/Kg	11/21/2009 3:55:00 A	VOC1_091121A	1	VKG	11/21/2009 3:55:00 AM
1,2-Dibromoethane	106-93-4	< 0.0577			0.0492	0.2500	0.0577	ug/Kg	11/21/2009 3:55:00 A	VOC1_091121A	1	VKG	11/21/2009 3:55:00 AM
1,1,2-Trichloroethane	79-00-5	< 1.5123			1.2900	5.0000	1.5123	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,2,3-Trichloropropane	96-18-4	< 0.0756			0.0645	0.2500	0.0756	ug/Kg	11/21/2009 3:55:00 A	VOC1_091121A	1	VKG	11/21/2009 3:55:00 AM
1,1-Dichloroethane	74-34-3	< 1.4185			1.2100	5.0000	1.4185	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,1-Dichloroethene	75-35-4	< 1.6178			1.3800	5.0000	1.6178	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,1-Dichloropropene	563-58-6	< 1.0621			0.9060	5.0000	1.0621	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 1.3716			1.1700	5.0000	1.3716	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.7468			1.4900	5.0000	1.7468	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 2.5791			2.2000	5.0000	2.5791	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 1.0223			0.8720	5.0000	1.0223	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 2.3447			2.0000	5.0000	2.3447	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,2-Dibromoethane	106-93-4	< 1.1958			1.0200	5.0000	1.1958	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.9977			0.8510	5.0000	0.9977	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,2-Dichloroethane	107-06-2	< 1.0868			0.9270	5.0000	1.0868	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,2-Dichloropropane	78-87-5	< 1.3834			1.1800	5.0000	1.3834	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 1.1958			1.0200	5.0000	1.1958	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,3-Dichlorobenzene	541-73-1	< 1.2661			1.0800	5.0000	1.2661	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,3-Dichloropropane	142-28-9	< 0.9355			0.7980	5.0000	0.9355	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1,4-Dichlorobenzene	106-46-7	< 1.0211			0.8710	5.0000	1.0211	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
1-Chlorohexane	544-10-5	< 0.6811			0.5810	5.0000	0.6811	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
2,2-Dichloropropane	590-20-7	< 1.2778			1.0900	5.0000	1.2778	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
2-Butanone	78-93-3	< 0.6800			0.5800	10.0000	0.6800	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
2-Chlorotoluene	95-49-8	< 1.6882			1.4400	5.0000	1.6882	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
2-Hexanone	591-78-6	< 1.0574			0.9020	10.0000	1.0574	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
4-Chlorotoluene	106-43-4	< 1.3599			1.1600	5.0000	1.3599	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
4-Isopropyltoluene	99-87-6	< 3.5756			3.0500	5.0000	3.5756	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
4-Methyl-2-pentanone	108-10-1	< 2.3095			1.9700	10.0000	2.3095	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Acetone	67-64-1	< 1.8406			1.5700	10.0000	1.8406	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Allyl chloride	107-05-1	< 3.8921			3.3200	5.0000	3.8921	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Benzene	71-43-2	< 0.9332			0.7960	5.0000	0.9332	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna
Alamo Lab Job Order Number:	0911053	**Report Date:**	Date: 12/1/2009		

ClientSampID:	B9 0-1'	**Sample Matrix:**	Soil	**Date Received:**	11/12/2009
Sample Date:	11/11/2009	**Alamo Lab ID:**	0911053-04A	**Time Received:**	8:00
Sample Time:	10:39			**Dry Weight Corrected:**	Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Bromobenzene	108-86-1	< 1.7233			1.4700	5.0000	1.7233	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Bromochloromethane	74-97-5	< 1.5709			1.3400	5.0000	1.5709	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Bromodichloromethane	75-27-4	< 1.4420			1.2300	5.0000	1.4420	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Bromoform	75-25-2	< 1.0586			0.9030	5.0000	1.0586	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Bromomethane	74-83-9	< 1.9461			1.6600	5.0000	1.9461	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Carbon disulfide	75-15-0	< 1.3130			1.1200	5.0000	1.3130	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Carbon tetrachloride	56-23-5	< 1.1723			1.0000	5.0000	1.1723	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Chlorobenzene	108-90-7	< 1.5475			1.3200	5.0000	1.5475	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Chloroethane	75-00-3	< 1.1630			0.9920	5.0000	1.1630	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Chloroform	67-66-3	< 1.6178			1.3800	5.0000	1.6178	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Chloromethane	74-87-3	< 1.4185			1.2100	5.0000	1.4185	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.4654			1.2500	5.0000	1.4654	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.6178			1.3800	5.0000	1.6178	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Dibromochloromethane	124-48-1	< 1.2661			1.0800	5.0000	1.2661	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Dibromomethane	74-95-3	< 2.1571			1.8400	5.0000	2.1571	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Dichlorodifluoromethane	75-71-8	< 2.7081			2.3100	5.0000	2.7081	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Ethylbenzene	100-41-4	< 1.2896			1.1000	5.0000	1.2896	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Hexachlorobutadiene	87-68-3	< 3.0246			2.5800	5.0000	3.0246	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Iodomethane	74-88-4	< 1.6647			1.4200	5.0000	1.6647	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Isopropylbenzene	98-82-8	< 1.6882			1.4400	5.0000	1.6882	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
m,p-Xylene	179601-23-	< 1.6178			1.3800	10.0000	1.6178	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Methyl tert-butyl ether	1634-04-4	< 1.3013			1.1100	5.0000	1.3013	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Methylene chloride	75-09-2	< 3.2122			2.7400	5.0000	3.2122	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
n-Butylbenzene	104-51-8	< 1.1407			0.9730	5.0000	1.1407	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
n-Propylbenzene	103-65-1	< 1.5475			1.3200	5.0000	1.5475	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Naphthalene	91-20-3	< 1.3716			1.1700	15.0000	1.3716	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
o-Xylene	95-47-6	< 1.3013			1.1100	5.0000	1.3013	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
sec-Butylbenzene	135-98-8	< 2.1454			1.8300	5.0000	2.1454	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Styrene	100-42-5	< 1.3482			1.1500	5.0000	1.3482	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
tert-Butylbenzene	98-06-6	< 1.6882			1.4400	5.0000	1.6882	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Tetrachloroethene	127-18-4	< 1.1958			1.0200	5.0000	1.1958	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Toluene	108-88-3	< 0.9906			0.8450	5.0000	0.9906	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.4420			1.2300	5.0000	1.4420	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B9 0-1' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-04A **Time Received:** 8:00

Sample Time: 10:39 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
trans-1,3-Dichloropropene	10061-02-9	< 1.6999			1.4500	10.0000	1.6999	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Trichloroethene	79-01-6	< 1.1723			1.0000	5.0000	1.1723	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Trichlorofluoromethane	75-69-4	< 2.2392			1.9100	5.0000	2.2392	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
Vinyl chloride	75-01-4	< 1.4889			1.2700	2.0000	1.4889	ug/Kg	11/16/2009 7:28:00 P	VOC1_091116A	1	VKG	11/16/2009 7:28:00 PM
SW8270C													
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1559			0.1330	0.3300	0.1559	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2,4-Trichlorobenzene	120-82-1	< 0.0510			0.0435	0.3300	0.0510	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0735			0.0627	0.3300	0.0735	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0108			0.0092	0.0330	0.0108	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[a]anthracene	56-55-3	< 0.0206			0.0176	0.0660	0.0206	mg/Kg	12/1/2009 3:10:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0818			0.0698	0.3300	0.0818	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[a]pyrene	50-32-8	< 0.0109			0.0093	0.0300	0.0109	mg/Kg	12/1/2009 3:10:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0750			0.0640	0.3300	0.0750	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[b]fluoranthene	205-99-2	< 0.0142			0.0121	0.0300	0.0142	mg/Kg	12/1/2009 3:10:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.1993			0.1700	0.3300	0.1993	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[k]fluoranthene	207-08-9	< 0.0155			0.0132	0.0300	0.0155	mg/Kg	12/1/2009 3:10:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0226			0.0193	0.3300	0.0226	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0305			0.0260	0.3300	0.0305	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0488			0.0416	0.3300	0.0488	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenz[a,h]anthracene	53-70-3	< 0.0093			0.0079	0.0300	0.0093	mg/Kg	12/1/2009 3:10:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0315			0.0269	0.3300	0.0315	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1290			0.1100	0.3300	0.1290	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Indeno[1,2,3-cd]pyrene	193-39-5	< 0.0234			0.0200	0.0300	0.0234	mg/Kg	12/1/2009 3:10:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0148			0.0126	0.0330	0.0148	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0488			0.0416	0.3300	0.0488	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0324			0.0276	0.3300	0.0324	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0392			0.0334	0.3300	0.0392	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0460			0.0392	0.3300	0.0460	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1641			0.1400	0.3300	0.1641	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0513			0.0438	0.3300	0.0513	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0245			0.0209	0.0660	0.0245	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0339			0.0289	0.3300	0.0339	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0469			0.0400	0.3300	0.0469	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B9 0-1' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-04A **Time Received:** 8:00

Sample Time: 10:39 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
3,3´-Dichlorobenzidine	91-94-1	< 0.0213			0.0182	0.0660	0.0213	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0826			0.0705	0.3300	0.0826	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1290			0.1100	0.3300	0.1290	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0106			0.0090	0.0330	0.0106	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0470			0.0401	0.3300	0.0470	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0491			0.0419	0.3300	0.0491	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0060			0.0051	0.0330	0.0060	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0614			0.0524	0.3300	0.0614	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1360			0.1160	0.3300	0.1360	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0691			0.0589	0.3300	0.0691	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1630			0.1390	0.3300	0.1630	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1419			0.1210	0.3300	0.1419	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1700			0.1450	0.3300	0.1700	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Aniline	62-53-3	< 0.2860			0.2440	0.6600	0.2860	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1290			0.1100	0.3300	0.1290	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzidine	92-87-5	< 0.0457			0.0390	0.1000	0.0457	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0256			0.0218	0.3300	0.0256	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0660			0.0563	0.3300	0.0660	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0945			0.0806	0.3300	0.0945	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1290			0.1100	0.3300	0.1290	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0420			0.0358	0.3300	0.0420	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3329			0.2840	0.6600	0.3329	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1864			0.1590	0.6600	0.1864	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.0107			0.0091	0.0330	0.0107	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 0.0147			0.0128	0.0330	0.0147	mg/Kg	12/1/2009 3:10:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1723			0.1470	0.3300	0.1723	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1583			0.1350	0.3300	0.1583	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1606			0.1370	0.3300	0.1606	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1407			0.1200	0.3300	0.1407	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1477			0.1260	0.3300	0.1477	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Di-n-octyl phthalate	117-84-0	< 0.1958			0.1670	0.3300	0.1958	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 0.1083			0.0924	0.3300	0.1083	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1465			0.1250	0.3300	0.1465	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B9 0-1' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-04A **Time Received:** 8:00

Sample Time: 10:39 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Diethyl phthalate	84-66-2	< 0.1454			0.1240	0.3300	0.1454	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1501			0.1280	0.3300	0.1501	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.1016			0.0867	0.3300	0.1016	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1477			0.1260	0.3300	0.1477	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0152			0.0130	0.0330	0.0152	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1301			0.1110	0.3300	0.1301	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1442			0.1230	0.3300	0.1442	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1041			0.0888	0.3300	0.1041	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1129			0.0963	0.3300	0.1129	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1072			0.0914	0.3300	0.1072	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0113			0.0096	0.0330	0.0113	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0118			0.0101	0.0330	0.0118	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0852			0.0727	0.3300	0.0852	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1676			0.1430	0.3300	0.1676	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1700			0.1450	0.3300	0.1700	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.0492			0.0420	0.3300	0.0492	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1123			0.0958	0.3300	0.1123	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Phenol	108-95-2	< 0.1653			0.1410	0.3300	0.1653	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0938			0.0800	0.3300	0.0938	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1852			0.1580	0.3300	0.1852	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2814			0.2400	0.6600	0.2814	mg/Kg	11/30/2009 6:26:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 5.0879			4.3400	10.0000	5.0879	mg/Kg	11/17/2009	CN_R_TS-11/17/2009	10	SS	11/17/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B9 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-05A **Time Received:** 8:00

Sample Time: 10:49 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		12			0.0000	0.1000	0.0000	wt%	11/13/2009	PMOIST-11/12/2009	1	SS	11/12/2009
SW6010B													
Aluminum	7429-90-5	6590.0000			0.5560	2.5000	0.6333	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Antimony	7440-36-0	< 0.7802			0.6850	2.5000	0.7802	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Arsenic	7440-38-2	4.9200			0.6890	1.5000	0.7847	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Barium	7440-39-3	76.5000			0.2100	1.0000	0.2392	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Beryllium	7440-41-7	0.7780			0.0440	0.2000	0.0501	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Cadmium	7440-43-9	< 0.0797			0.0700	0.5000	0.0797	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Calcium	7440-70-2	860.0000			1.5000	5.0000	1.7084	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Chromium	7440-47-3	7.6200			0.2210	1.0000	0.2517	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Cobalt	7440-48-4	4.4000			0.3700	1.0000	0.4214	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Copper	7440-50-8	3.6300			0.4470	1.0000	0.5091	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Iron	7439-89-6	11600.0000			0.9860	2.0000	1.1230	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Lead	7439-92-1	7.3600			0.4500	1.5000	0.5125	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Magnesium	7439-95-4	1210.0000			1.1800	5.0000	1.3440	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Manganese	7439-96-5	64.6000			1.2500	5.0000	1.4237	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Nickel	7440-02-0	9.2400			0.4790	1.0000	0.5456	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Potassium	7440-09-7	513.0000			4.7100	25.0000	5.3645	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Selenium	7782-49-2	< 0.8884			0.7800	2.0000	0.8884	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Silver	7440-22-4	< 0.5467			0.4800	1.0000	0.5467	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Sodium	7440-23-5	432.0000			2.1000	5.0000	2.3918	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Strontium	7440-24-6	< 0.4897			0.4300	1.0000	0.4897	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Thallium	7440-28-0	< 1.6464			1.4700	5.0000	1.6464	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Vanadium	7440-62-2	15.7000			0.7500	2.0000	0.8542	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Zinc	7440-66-6	24.3000			0.4300	1.0000	0.4897	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2984			0.2620	1.0000	0.2984	mg/kg	11/19/2009	CR6_S-11/19/2009	1	SS	11/19/2009
SW7471A													
Mercury	7439-97-6	< 0.0354			0.0311	0.0400	0.0354	mg/Kg	11/12/2009 2:35:00 P	HG_R_S-11/12/2009	1	DW	11/12/2009 10:30:00 AM
SW8260B													
1,1,1,2-Tetrachloroethane	630-20-6	< 1.2642			1.1100	5.0000	1.2642	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,1-Dichloropropene	563-58-6	< 0.5843			0.5130	1.0000	0.5843	ug/Kg	11/21/2009 4:33:00 A	VOC1_091121A	1	VKG	11/21/2009 4:33:00 AM
1,2-Dibromo-3-chloropropane	96-12-8	< 0.0843			0.0740	0.2500	0.0843	ug/Kg	11/21/2009 4:33:00 A	VOC1_091121A	1	VKG	11/21/2009 4:33:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B9 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-05A **Time Received:** 8:00

Sample Time: 10:49 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1,1-Trichloroethane	71-55-6	< 1.7768			1.5600	5.0000	1.7768	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.8508			0.7470	5.0000	0.8508	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 0.5444			0.4780	1.0000	0.5444	ug/Kg	11/21/2009 4:33:00 A	VOC1_091121A	1	VKG	11/21/2009 4:33:00 AM
1,2-Dibromoethane	106-93-4	< 0.0544			0.0478	0.2500	0.0544	ug/Kg	11/21/2009 4:33:00 A	VOC1_091121A	1	VKG	11/21/2009 4:33:00 AM
1,1,2-Trichloroethane	79-00-5	< 1.3895			1.2200	5.0000	1.3895	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,2,3-Trichloropropane	96-18-4	< 0.0713			0.0626	0.2500	0.0713	ug/Kg	11/21/2009 4:33:00 A	VOC1_091121A	1	VKG	11/21/2009 4:33:00 AM
1,1-Dichloroethane	74-34-3	< 1.2984			1.1400	5.0000	1.2984	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,1-Dichloroethene	75-35-4	< 1.4920			1.3100	5.0000	1.4920	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,1-Dichloropropene	563-58-6	< 0.9738			0.8550	5.0000	0.9738	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 1.2528			1.1000	5.0000	1.2528	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.5945			1.4000	5.0000	1.5945	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 2.3576			2.0700	5.0000	2.3576	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.9374			0.8230	5.0000	0.9374	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 2.1526			1.8900	5.0000	2.1526	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,2-Dibromoethane	106-93-4	< 1.0957			0.9620	5.0000	1.0957	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.9146			0.8030	5.0000	0.9146	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,2-Dichloroethane	107-06-2	< 0.9977			0.8760	5.0000	0.9977	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,2-Dichloropropane	78-87-5	< 1.2756			1.1200	5.0000	1.2756	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 1.0934			0.9600	5.0000	1.0934	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,3-Dichlorobenzene	541-73-1	< 1.1617			1.0200	5.0000	1.1617	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,3-Dichloropropane	142-28-9	< 0.8588			0.7540	5.0000	0.8588	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.9362			0.8220	5.0000	0.9362	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
1-Chlorohexane	544-10-5	< 0.6253			0.5490	5.0000	0.6253	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
2,2-Dichloropropane	590-20-7	< 1.1731			1.0300	5.0000	1.1731	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
2-Butanone	78-93-3	< 0.6241			0.5480	10.0000	0.6241	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
2-Chlorotoluene	95-49-8	< 1.5604			1.3700	5.0000	1.5604	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
2-Hexanone	591-78-6	< 0.9692			0.8510	10.0000	0.9692	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
4-Chlorotoluene	106-43-4	< 1.2415			1.0900	5.0000	1.2415	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
4-Isopropyltoluene	99-87-6	< 3.2802			2.8800	5.0000	3.2802	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
4-Methyl-2-pentanone	108-10-1	< 2.1185			1.8600	10.0000	2.1185	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Acetone	67-64-1	< 1.6856			1.4800	10.0000	1.6856	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Allyl chloride	107-05-1	< 3.5535			3.1200	5.0000	3.5535	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Benzene	71-43-2	< 0.8554			0.7510	5.0000	0.8554	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B9 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-05A **Time Received:** 8:00

Sample Time: 10:49 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Bromobenzene	108-86-1	< 1.5831			1.3900	5.0000	1.5831	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Bromochloromethane	74-97-5	< 1.4237			1.2500	5.0000	1.4237	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Bromodichloromethane	75-27-4	< 1.3212			1.1600	5.0000	1.3212	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Bromoform	75-25-2	< 0.9704			0.8520	5.0000	0.9704	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Bromomethane	74-83-9	< 1.7882			1.5700	5.0000	1.7882	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Carbon disulfide	75-15-0	< 1.2073			1.0600	5.0000	1.2073	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Carbon tetrachloride	56-23-5	< 1.0763			0.9450	5.0000	1.0763	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Chlorobenzene	108-90-7	< 1.4237			1.2500	5.0000	1.4237	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Chloroethane	75-00-3	< 1.0661			0.9360	5.0000	1.0661	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Chloroform	67-66-3	< 1.4920			1.3100	5.0000	1.4920	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Chloromethane	74-87-3	< 1.2984			1.1400	5.0000	1.2984	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.3440			1.1800	5.0000	1.3440	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.4920			1.3100	5.0000	1.4920	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Dibromochloromethane	124-48-1	< 1.1617			1.0200	5.0000	1.1617	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Dibromomethane	74-95-3	< 1.9818			1.7400	5.0000	1.9818	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Dichlorodifluoromethane	75-71-8	< 2.4829			2.1800	5.0000	2.4829	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Ethylbenzene	100-41-4	< 1.1845			1.0400	5.0000	1.1845	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Hexachlorobutadiene	87-68-3	< 2.7790			2.4400	5.0000	2.7790	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Iodomethane	74-88-4	< 1.5148			1.3300	5.0000	1.5148	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Isopropylbenzene	98-82-8	< 1.5604			1.3700	5.0000	1.5604	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
m,p-Xylene	179601-23-	< 1.4920			1.3100	10.0000	1.4920	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Methyl tert-butyl ether	1634-04-4	< 1.1959			1.0500	5.0000	1.1959	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Methylene chloride	75-09-2	< 2.9613			2.6000	5.0000	2.9613	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
n-Butylbenzene	104-51-8	1.5700		J	0.9180	5.0000	1.0456	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
n-Propylbenzene	103-65-1	< 1.4237			1.2500	5.0000	1.4237	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Naphthalene	91-20-3	8.6900		J	1.1000	15.0000	1.2528	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
o-Xylene	95-47-6	< 1.1959			1.0500	5.0000	1.1959	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
sec-Butylbenzene	135-98-8	< 1.9590			1.7200	5.0000	1.9590	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Styrene	100-42-5	< 1.2301			1.0800	5.0000	1.2301	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
tert-Butylbenzene	98-06-6	< 1.5604			1.3700	5.0000	1.5604	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Tetrachloroethene	127-18-4	< 1.0923			0.9590	5.0000	1.0923	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Toluene	108-88-3	< 0.9077			0.7970	5.0000	0.9077	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.3212			1.1600	5.0000	1.3212	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B9 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-05A **Time Received:** 8:00

Sample Time: 10:49 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
trans-1,3-Dichloropropene	10061-02-9	< 1.5718			1.3800	10.0000	1.5718	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Trichloroethene	79-01-6	< 1.0809			0.9490	5.0000	1.0809	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Trichlorofluoromethane	75-69-4	< 2.0501			1.8000	5.0000	2.0501	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
Vinyl chloride	75-01-4	< 1.3667			1.2000	2.0000	1.3667	ug/Kg	11/16/2009 8:55:00 P	VOC1_091116A	1	VKG	11/16/2009 8:55:00 PM
SW8270C													
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1515			0.1330	0.3300	0.1515	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2,4-Trichlorobenzene	120-82-1	< 0.0495			0.0435	0.3300	0.0495	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0714			0.0627	0.3300	0.0714	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0105			0.0092	0.0330	0.0105	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[a]anthracene	56-55-3	< 0.0200			0.0176	0.0660	0.0200	mg/Kg	12/1/2009 3:49:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0795			0.0698	0.3300	0.0795	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[a]pyrene	50-32-8	< 0.0106			0.0093	0.0300	0.0106	mg/Kg	12/1/2009 3:49:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0729			0.0640	0.3300	0.0729	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[b]fluoranthene	205-99-2	< 0.0138			0.0121	0.0300	0.0138	mg/Kg	12/1/2009 3:49:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.1936			0.1700	0.3300	0.1936	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[k]fluoranthene	207-08-9	< 0.0150			0.0132	0.0300	0.0150	mg/Kg	12/1/2009 3:49:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0220			0.0193	0.3300	0.0220	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0296			0.0260	0.3300	0.0296	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0474			0.0416	0.3300	0.0474	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenz[a,h]anthracene	53-70-3	< 0.0090			0.0079	0.0300	0.0090	mg/Kg	12/1/2009 3:49:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0306			0.0269	0.3300	0.0306	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1253			0.1100	0.3300	0.1253	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Indeno[1,2,3-cd]pyrene	193-39-5	< 0.0228			0.0200	0.0300	0.0228	mg/Kg	12/1/2009 3:49:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0144			0.0126	0.0330	0.0144	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0474			0.0416	0.3300	0.0474	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0314			0.0276	0.3300	0.0314	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0380			0.0334	0.3300	0.0380	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0446			0.0392	0.3300	0.0446	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1595			0.1400	0.3300	0.1595	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0499			0.0438	0.3300	0.0499	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0238			0.0209	0.0660	0.0238	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0329			0.0289	0.3300	0.0329	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0456			0.0400	0.3300	0.0456	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B9 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-05A **Time Received:** 8:00

Sample Time: 10:49 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
3,3´-Dichlorobenzidine	91-94-1	< 0.0207			0.0182	0.0660	0.0207	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0803			0.0705	0.3300	0.0803	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1253			0.1100	0.3300	0.1253	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0103			0.0090	0.0330	0.0103	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0457			0.0401	0.3300	0.0457	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0477			0.0419	0.3300	0.0477	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0058			0.0051	0.0330	0.0058	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0597			0.0524	0.3300	0.0597	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1321			0.1160	0.3300	0.1321	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0671			0.0589	0.3300	0.0671	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1583			0.1390	0.3300	0.1583	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1378			0.1210	0.3300	0.1378	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1651			0.1450	0.3300	0.1651	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Aniline	62-53-3	< 0.2779			0.2440	0.6600	0.2779	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1253			0.1100	0.3300	0.1253	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzidine	92-87-5	< 0.0444			0.0390	0.1000	0.0444	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0248			0.0218	0.3300	0.0248	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0641			0.0563	0.3300	0.0641	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0918			0.0806	0.3300	0.0918	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1253			0.1100	0.3300	0.1253	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0408			0.0358	0.3300	0.0408	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3235			0.2840	0.6600	0.3235	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1811			0.1590	0.6600	0.1811	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.0104			0.0091	0.0330	0.0104	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 0.0143			0.0128	0.0330	0.0143	mg/Kg	12/1/2009 3:49:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1674			0.1470	0.3300	0.1674	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1538			0.1350	0.3300	0.1538	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1560			0.1370	0.3300	0.1560	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1367			0.1200	0.3300	0.1367	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1435			0.1260	0.3300	0.1435	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Di-n-octyl phthalate	117-84-0	< 0.1902			0.1670	0.3300	0.1902	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 0.1052			0.0924	0.3300	0.1052	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1424			0.1250	0.3300	0.1424	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B9 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-05A **Time Received:** 8:00

Sample Time: 10:49 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Diethyl phthalate	84-66-2	< 0.1412			0.1240	0.3300	0.1412	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1458			0.1280	0.3300	0.1458	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.0987			0.0867	0.3300	0.0987	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1435			0.1260	0.3300	0.1435	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0148			0.0130	0.0330	0.0148	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1264			0.1110	0.3300	0.1264	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1401			0.1230	0.3300	0.1401	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1011			0.0888	0.3300	0.1011	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1097			0.0963	0.3300	0.1097	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1041			0.0914	0.3300	0.1041	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0109			0.0096	0.0330	0.0109	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0115			0.0101	0.0330	0.0115	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0828			0.0727	0.3300	0.0828	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1629			0.1430	0.3300	0.1629	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1651			0.1450	0.3300	0.1651	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.0478			0.0420	0.3300	0.0478	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1091			0.0958	0.3300	0.1091	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Phenol	108-95-2	< 0.1606			0.1410	0.3300	0.1606	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0911			0.0800	0.3300	0.0911	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1800			0.1580	0.3300	0.1800	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2733			0.2400	0.6600	0.2733	mg/Kg	11/30/2009 7:06:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 4.7950			4.2100	10.0000	4.7950	mg/Kg	11/17/2009	CN_R_TS-11/17/2009	10	SS	11/17/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B7 0-1' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-06A **Time Received:** 8:00

Sample Time: 11:19 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		10			0.0000	0.1000	0.0000	wt%	11/13/2009	PMOIST-11/12/2009	1	SS	11/12/2009
SW6010B													
Aluminum	7429-90-5	7680.0000			0.5560	2.5000	0.6172	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Antimony	7440-36-0	< 0.7604			0.6850	2.5000	0.7604	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Arsenic	7440-38-2	< 0.7649			0.6890	1.5000	0.7649	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Barium	7440-39-3	39.2000			0.2100	1.0000	0.2331	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Beryllium	7440-41-7	0.5420			0.0440	0.2000	0.0488	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Cadmium	7440-43-9	< 0.0777			0.0700	0.5000	0.0777	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Calcium	7440-70-2	899.0000			1.5000	5.0000	1.6652	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Chromium	7440-47-3	7.7400			0.2210	1.0000	0.2453	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Cobalt	7440-48-4	2.3400			0.3700	1.0000	0.4107	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Copper	7440-50-8	3.0500			0.4470	1.0000	0.4962	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Iron	7439-89-6	11700.0000			0.9860	2.0000	1.0946	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Lead	7439-92-1	8.2700			0.4500	1.5000	0.4996	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Magnesium	7439-95-4	1120.0000			1.1800	5.0000	1.3099	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Manganese	7439-96-5	82.7000			1.2500	5.0000	1.3877	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Nickel	7440-02-0	7.6900			0.4790	1.0000	0.5317	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Potassium	7440-09-7	436.0000			4.7100	25.0000	5.2287	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Selenium	7782-49-2	< 0.8659			0.7800	2.0000	0.8659	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Silver	7440-22-4	< 0.5329			0.4800	1.0000	0.5329	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Sodium	7440-23-5	404.0000			2.1000	5.0000	2.3313	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Strontium	7440-24-6	< 0.4774			0.4300	1.0000	0.4774	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Thallium	7440-28-0	< 1.617			1.4700	5.0000	1.617	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Vanadium	7440-62-2	19.3000			0.7500	2.0000	0.8326	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Zinc	7440-66-6	17.9000			0.4300	1.0000	0.4774	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.2831			0.2550	1.0000	0.2831	mg/kg	11/19/2009	CR6_S-11/19/2009	1	SS	11/19/2009
SW7471A													
Mercury	7439-97-6	< 0.0312			0.0281	0.0400	0.0312	mg/Kg	11/12/2009 2:35:00 P	HG_R_S-11/12/2009	1	DW	11/12/2009 10:30:00 AM
SW8260B													
1,1-Dichloropropene	563-58-6	< 0.5551			0.5000	1.0000	0.5551	ug/Kg	11/21/2009 5:11:00 A	VOC1_091121A	1	VKG	11/21/2009 5:11:00 AM
1,1,1,2-Tetrachloroethane	630-20-6	< 1.1767			1.0600	5.0000	1.1767	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,1,1-Trichloroethane	71-55-6	< 1.6430			1.4800	5.0000	1.6430	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna
Alamo Lab Job Order Number:	0911053	**Report Date:**	Date: 12/1/2009		

ClientSampID:	B7 0-1'	**Sample Matrix:**	Soil	**Date Received:**	11/12/2009
Sample Date:	11/11/2009	**Alamo Lab ID:**	0911053-06A	**Time Received:**	8:00
Sample Time:	11:19			**Dry Weight Corrected:**	Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,2-Dibromo-3-chloropropane	96-12-8	< 0.0802			0.0722	0.2500	0.0802	ug/Kg	11/21/2009 5:11:00 A	VOC1_091121A	1	VKG	11/21/2009 5:11:00 AM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.7871			0.7090	5.0000	0.7871	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 0.5173			0.4660	1.0000	0.5173	ug/Kg	11/21/2009 5:11:00 A	VOC1_091121A	1	VKG	11/21/2009 5:11:00 AM
1,1,2-Trichloroethane	79-00-5	< 1.2988			1.1700	5.0000	1.2988	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,2-Dibromoethane	106-93-4	< 0.0517			0.0466	0.2500	0.0517	ug/Kg	11/21/2009 5:11:00 A	VOC1_091121A	1	VKG	11/21/2009 5:11:00 AM
1,2,3-Trichloropropane	96-18-4	< 0.0678			0.0611	0.2500	0.0678	ug/Kg	11/21/2009 5:11:00 A	VOC1_091121A	1	VKG	11/21/2009 5:11:00 AM
1,1-Dichloroethane	74-34-3	< 1.1989			1.0800	5.0000	1.1989	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,1-Dichloroethene	75-35-4	< 1.3766			1.2400	5.0000	1.3766	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,1-Dichloropropene	563-58-6	< 0.9025			0.8130	5.0000	0.9025	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 1.1656			1.0500	5.0000	1.1656	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.4765			1.3300	5.0000	1.4765	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 2.1980			1.9800	5.0000	2.1980	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.8692			0.7830	5.0000	0.8692	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.9982			1.8000	5.0000	1.9982	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,2-Dibromoethane	106-93-4	< 1.0158			0.9150	5.0000	1.0158	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.8470			0.7630	5.0000	0.8470	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,2-Dichloroethane	107-06-2	< 0.9225			0.8310	5.0000	0.9225	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,2-Dichloropropane	78-87-5	< 1.1767			1.0600	5.0000	1.1767	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 1.0113			0.9110	5.0000	1.0113	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,3-Dichlorobenzene	541-73-1	< 1.0713			0.9650	5.0000	1.0713	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,3-Dichloropropane	142-28-9	< 0.7948			0.7160	5.0000	0.7948	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.8681			0.7820	5.0000	0.8681	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
1-Chlorohexane	544-10-5	< 0.5795			0.5220	5.0000	0.5795	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
2,2-Dichloropropane	590-20-7	< 1.0890			0.9810	5.0000	1.0890	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
2-Butanone	78-93-3	< 0.5773			0.5200	10.0000	0.5773	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
2-Chlorotoluene	95-49-8	< 1.4432			1.3000	5.0000	1.4432	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
2-Hexanone	591-78-6	< 0.8970			0.8080	10.0000	0.8970	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
4-Chlorotoluene	106-43-4	< 1.1545			1.0400	5.0000	1.1545	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
4-Isopropyltoluene	99-87-6	< 3.0306			2.7300	5.0000	3.0306	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.9649			1.7700	10.0000	1.9649	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Acetone	67-64-1	< 1.5653			1.4100	10.0000	1.5653	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Allyl chloride	107-05-1	< 3.3082			2.9800	5.0000	3.3082	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Benzene	71-43-2	< 0.7926			0.7140	5.0000	0.7926	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B7 0-1' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-06A **Time Received:** 8:00

Sample Time: 11:19 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Bromobenzene	108-86-1	< 1.4654			1.3200	5.0000	1.4654	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Bromochloromethane	74-97-5	< 1.3321			1.2000	5.0000	1.3321	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Bromodichloromethane	75-27-4	< 1.2322			1.1100	5.0000	1.2322	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Bromoform	75-25-2	< 0.8981			0.8090	5.0000	0.8981	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Bromomethane	74-83-9	< 1.6541			1.4900	5.0000	1.6541	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Carbon disulfide	75-15-0	< 1.1101			1.0000	5.0000	1.1101	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Carbon tetrachloride	56-23-5	< 0.9969			0.8980	5.0000	0.9969	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Chlorobenzene	108-90-7	< 1.3210			1.1900	5.0000	1.3210	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Chloroethane	75-00-3	< 0.9880			0.8900	5.0000	0.9880	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Chloroform	67-66-3	< 1.3766			1.2400	5.0000	1.3766	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Chloromethane	74-87-3	< 1.2100			1.0900	5.0000	1.2100	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.2433			1.1200	5.0000	1.2433	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.3766			1.2400	5.0000	1.3766	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Dibromochloromethane	124-48-1	< 1.0790			0.9720	5.0000	1.0790	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Dibromomethane	74-95-3	< 1.8317			1.6500	5.0000	1.8317	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Dichlorodifluoromethane	75-71-8	< 2.3091			2.0800	5.0000	2.3091	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Ethylbenzene	100-41-4	< 1.0935			0.9850	5.0000	1.0935	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Hexachlorobutadiene	87-68-3	< 2.5755			2.3200	5.0000	2.5755	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Iodomethane	74-88-4	< 1.4099			1.2700	5.0000	1.4099	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Isopropylbenzene	98-82-8	< 1.4432			1.3000	5.0000	1.4432	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
m,p-Xylene	179601-23-	< 1.3766			1.2400	10.0000	1.3766	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Methyl tert-butyl ether	1634-04-4	< 1.1046			0.9950	5.0000	1.1046	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Methylene chloride	75-09-2	< 2.7309			2.4600	5.0000	2.7309	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
n-Butylbenzene	104-51-8	11.1000			0.8730	5.0000	0.9691	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
n-Propylbenzene	103-65-1	< 1.3210			1.1900	5.0000	1.3210	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Naphthalene	91-20-3	16.3000			1.0500	15.0000	1.1656	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
o-Xylene	95-47-6	< 1.1057			0.9960	5.0000	1.1057	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
sec-Butylbenzene	135-98-8	< 1.8206			1.6400	5.0000	1.8206	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Styrene	100-42-5	< 1.1434			1.0300	5.0000	1.1434	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
tert-Butylbenzene	98-06-6	< 1.4432			1.3000	5.0000	1.4432	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Tetrachloroethene	127-18-4	< 1.0102			0.9100	5.0000	1.0102	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Toluene	108-88-3	< 0.8415			0.7580	5.0000	0.8415	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.2211			1.1000	5.0000	1.2211	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B7 0-1' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-06A **Time Received:** 8:00

Sample Time: 11:19 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
trans-1,3-Dichloropropene	10061-02-9	< 1.4543			1.3100	10.0000	1.4543	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Trichloroethene	79-01-6	< 1.0002			0.9010	5.0000	1.0002	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Trichlorofluoromethane	75-69-4	< 1.8983			1.7100	5.0000	1.8983	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
Vinyl chloride	75-01-4	< 1.2544			1.1300	2.0000	1.2544	ug/Kg	11/16/2009 11:06:00	VOC1_091116A	1	VKG	11/16/2009 11:06:00 PM
SW8270C													
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1476			0.1330	0.3300	0.1476	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2,4-Trichlorobenzene	120-82-1	< 0.0483			0.0435	0.3300	0.0483	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0696			0.0627	0.3300	0.0696	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[a]anthracene	56-55-3	< 0.0195			0.0176	0.0660	0.0195	mg/Kg	12/1/2009 4:29:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0102			0.0092	0.0330	0.0102	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0775			0.0698	0.3300	0.0775	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[a]pyrene	50-32-8	< 0.0103			0.0093	0.0300	0.0103	mg/Kg	12/1/2009 4:29:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0710			0.0640	0.3300	0.0710	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[b]fluoranthene	205-99-2	< 0.0134			0.0121	0.0300	0.0134	mg/Kg	12/1/2009 4:29:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.1887			0.1700	0.3300	0.1887	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0214			0.0193	0.3300	0.0214	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[k]fluoranthene	207-08-9	< 0.0147			0.0132	0.0300	0.0147	mg/Kg	12/1/2009 4:29:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0289			0.0260	0.3300	0.0289	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenz[a,h]anthracene	53-70-3	< 0.0088			0.0079	0.0300	0.0088	mg/Kg	12/1/2009 4:29:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0462			0.0416	0.3300	0.0462	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0299			0.0269	0.3300	0.0299	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1221			0.1100	0.3300	0.1221	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0140			0.0126	0.0330	0.0140	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Indeno[1,2,3-cd]pyrene	193-39-5	< 0.0222			0.0200	0.0300	0.0222	mg/Kg	12/1/2009 4:29:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0462			0.0416	0.3300	0.0462	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0306			0.0276	0.3300	0.0306	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0371			0.0334	0.3300	0.0371	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0435			0.0392	0.3300	0.0435	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1554			0.1400	0.3300	0.1554	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0486			0.0438	0.3300	0.0486	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0232			0.0209	0.0660	0.0232	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0321			0.0289	0.3300	0.0321	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0444			0.0400	0.3300	0.0444	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B7 0-1' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-06A **Time Received:** 8:00

Sample Time: 11:19 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
3,3´-Dichlorobenzidine	91-94-1	< 0.0202			0.0182	0.0660	0.0202	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0783			0.0705	0.3300	0.0783	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1221			0.1100	0.3300	0.1221	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0100			0.0090	0.0330	0.0100	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0445			0.0401	0.3300	0.0445	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0465			0.0419	0.3300	0.0465	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0057			0.0051	0.0330	0.0057	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0582			0.0524	0.3300	0.0582	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1288			0.1160	0.3300	0.1288	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0654			0.0589	0.3300	0.0654	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1543			0.1390	0.3300	0.1543	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1343			0.1210	0.3300	0.1343	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1610			0.1450	0.3300	0.1610	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Aniline	62-53-3	< 0.2709			0.2440	0.6600	0.2709	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1221			0.1100	0.3300	0.1221	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzidine	92-87-5	< 0.0433			0.0390	0.1000	0.0433	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0242			0.0218	0.3300	0.0242	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0625			0.0563	0.3300	0.0625	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0895			0.0806	0.3300	0.0895	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1221			0.1100	0.3300	0.1221	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0397			0.0358	0.3300	0.0397	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3153			0.2840	0.6600	0.3153	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1765			0.1590	0.6600	0.1765	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.0101			0.0091	0.0330	0.0101	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 0.0141			0.0128	0.0330	0.0141	mg/Kg	12/1/2009 4:29:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1632			0.1470	0.3300	0.1632	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1499			0.1350	0.3300	0.1499	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1521			0.1370	0.3300	0.1521	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1332			0.1200	0.3300	0.1332	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1399			0.1260	0.3300	0.1399	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Di-n-octyl phthalate	117-84-0	< 0.1854			0.1670	0.3300	0.1854	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 0.1026			0.0924	0.3300	0.1026	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1388			0.1250	0.3300	0.1388	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna
Alamo Lab Job Order Number:	0911053	**Report Date:**	Date: 12/1/2009		
ClientSampID:	B7 0-1'	**Sample Matrix:**	Soil	**Date Received:**	11/12/2009
Sample Date:	11/11/2009	**Alamo Lab ID:**	0911053-06A	**Time Received:**	8:00
Sample Time:	11:19			**Dry Weight Corrected:**	Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Diethyl phthalate	84-66-2	< 0.1377			0.1240	0.3300	0.1377	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1421			0.1280	0.3300	0.1421	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.0962			0.0867	0.3300	0.0962	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1399			0.1260	0.3300	0.1399	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0144			0.0130	0.0330	0.0144	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1232			0.1110	0.3300	0.1232	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1365			0.1230	0.3300	0.1365	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.0986			0.0888	0.3300	0.0986	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1069			0.0963	0.3300	0.1069	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1015			0.0914	0.3300	0.1015	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0107			0.0096	0.0330	0.0107	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0112			0.0101	0.0330	0.0112	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0807			0.0727	0.3300	0.0807	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1587			0.1430	0.3300	0.1587	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1610			0.1450	0.3300	0.1610	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.0466			0.0420	0.3300	0.0466	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1063			0.0958	0.3300	0.1063	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Phenol	108-95-2	< 0.1565			0.1410	0.3300	0.1565	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0888			0.0800	0.3300	0.0888	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1754			0.1580	0.3300	0.1754	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2664			0.2400	0.6600	0.2664	mg/Kg	11/30/2009 7:46:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 4.5626			4.1100	10.0000	4.5626	mg/Kg	11/17/2009	CN_R_TS-11/17/2009	10	SS	11/17/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B7 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-07A **Time Received:** 8:00

Sample Time: 11:28 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
D2216													
Percent Moisture		13			0.0000	0.1000	0.0000	wt%	11/13/2009	PMOIST-11/12/2009	1	SS	11/12/2009
SW6010B													
Aluminum	7429-90-5	7270.0000			0.5560	2.5000	0.6362	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Antimony	7440-36-0	< 0.7838			0.6850	2.5000	0.7838	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Arsenic	7440-38-2	< 0.7883			0.6890	1.5000	0.7883	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Barium	7440-39-3	142.0000			0.2100	1.0000	0.2403	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Beryllium	7440-41-7	< 0.0503			0.0440	0.2000	0.0503	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Cadmium	7440-43-9	< 0.0801			0.0700	0.5000	0.0801	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Calcium	7440-70-2	170.0000			1.5000	5.0000	1.7162	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Chromium	7440-47-3	8.1400			0.2210	1.0000	0.2529	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Cobalt	7440-48-4	5.7600			0.3700	1.0000	0.4233	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Copper	7440-50-8	< 0.5114			0.4470	1.0000	0.5114	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Iron	7439-89-6	9270.0000			0.9860	2.0000	1.1281	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Lead	7439-92-1	18.5000			0.4500	1.5000	0.5149	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Magnesium	7439-95-4	437.0000			1.1800	5.0000	1.3501	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Manganese	7439-96-5	580.0000			1.2500	5.0000	1.4302	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Nickel	7440-02-0	3.5500			0.4790	1.0000	0.5481	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Potassium	7440-09-7	465.0000			4.7100	25.0000	5.3890	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Selenium	7782-49-2	< 0.8924			0.7800	2.0000	0.8924	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Silver	7440-22-4	< 0.5492			0.4800	1.0000	0.5492	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Sodium	7440-23-5	< 2.4027			2.1000	5.0000	2.4027	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Strontium	7440-24-6	< 0.4920			0.4300	1.0000	0.4920	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Thallium	7440-28-0	< 1.6611			1.4700	5.0000	1.6611	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Vanadium	7440-62-2	18.3000			0.7500	2.0000	0.8581	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
Zinc	7440-66-6	8.6500			0.4300	1.0000	0.4920	mg/Kg	11/16/2009 1:00:00 P	TAL_S-11/16/2009	1	JOL	11/16/2009 9:00:00 AM
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.3009			0.2630	1.0000	0.3009	mg/kg	11/19/2009	CR6_S-11/19/2009	1	SS	11/19/2009
SW7471A													
Mercury	7439-97-6	< 0.0364			0.0318	0.0400	0.0364	mg/Kg	11/12/2009 2:35:00 P	HG_R_S-11/12/2009	1	DW	11/12/2009 10:30:00 AM
SW8260B													
1,1-Dichloropropene	563-58-6	< 0.5892			0.5150	1.0000	0.5892	ug/Kg	11/21/2009 5:48:00 A	VOC1_091121A	1	VKG	11/21/2009 5:48:00 AM
1,1,1,2-Tetrachloroethane	630-20-6	< 1.2815			1.1200	5.0000	1.2815	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,1,1-Trichloroethane	71-55-6	< 1.7963			1.5700	5.0000	1.7963	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B7 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-07A **Time Received:** 8:00

Sample Time: 11:28 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,2-Dibromo-3-chloropropane	96-12-8	< 0.0851			0.0744	0.2500	0.0851	ug/Kg	11/21/2009 5:48:00 A	VOC1_091121A	1	VKG	11/21/2009 5:48:00 AM
cis-1,3-Dichloropropene	10061-01-5	< 0.5503			0.4810	1.0000	0.5503	ug/Kg	11/21/2009 5:48:00 A	VOC1_091121A	1	VKG	11/21/2009 5:48:00 AM
1,1,2,2-Tetrachloroethane	79-34-5	< 0.8627			0.7540	5.0000	0.8627	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,2-Dibromoethane	106-93-4	< 0.0550			0.0481	0.2500	0.0550	ug/Kg	11/21/2009 5:48:00 A	VOC1_091121A	1	VKG	11/21/2009 5:48:00 AM
1,1,2-Trichloroethane	79-00-5	< 1.4188			1.2400	5.0000	1.4188	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,2,3-Trichloropropane	96-18-4	< 0.0720			0.0629	0.2500	0.0720	ug/Kg	11/21/2009 5:48:00 A	VOC1_091121A	1	VKG	11/21/2009 5:48:00 AM
1,1-Dichloroethane	74-34-3	< 1.3043			1.1400	5.0000	1.3043	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,1-Dichloroethene	75-35-4	< 1.5217			1.3300	5.0000	1.5217	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,1-Dichloropropene	563-58-6	< 0.9874			0.8630	5.0000	0.9874	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 1.2815			1.1200	5.0000	1.2815	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.6247			1.4200	5.0000	1.6247	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 2.3913			2.0900	5.0000	2.3913	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 0.9519			0.8320	5.0000	0.9519	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 2.1854			1.9100	5.0000	2.1854	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,2-Dibromoethane	106-93-4	< 1.1110			0.9710	5.0000	1.1110	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.9268			0.8100	5.0000	0.9268	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,2-Dichloroethane	107-06-2	< 1.0103			0.8830	5.0000	1.0103	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,2-Dichloropropane	78-87-5	< 1.2929			1.1300	5.0000	1.2929	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 1.1087			0.9690	5.0000	1.1087	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,3-Dichlorobenzene	541-73-1	< 1.1785			1.0300	5.0000	1.1785	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,3-Dichloropropane	142-28-9	< 0.8707			0.7610	5.0000	0.8707	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.9497			0.8300	5.0000	0.9497	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
1-Chlorohexane	544-10-5	< 0.6339			0.5540	5.0000	0.6339	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
2,2-Dichloropropane	590-20-7	< 1.1899			1.0400	5.0000	1.1899	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
2-Butanone	78-93-3	< 0.6327			0.5530	10.0000	0.6327	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
2-Chlorotoluene	95-49-8	< 1.5675			1.3700	5.0000	1.5675	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
2-Hexanone	591-78-6	< 0.9828			0.8590	10.0000	0.9828	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
4-Chlorotoluene	106-43-4	< 1.2586			1.1000	5.0000	1.2586	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
4-Isopropyltoluene	99-87-6	< 3.3295			2.9100	5.0000	3.3295	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
4-Methyl-2-pentanone	108-10-1	< 2.1510			1.8800	10.0000	2.1510	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Acetone	67-64-1	< 1.7048			1.4900	10.0000	1.7048	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Allyl chloride	107-05-1	< 3.6156			3.1600	5.0000	3.6156	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Benzene	71-43-2	< 0.8661			0.7570	5.0000	0.8661	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM

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TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna
Alamo Lab Job Order Number:	0911053			**Report Date:**	Date: 12/1/2009

ClientSampID:	B7 14-15'	**Sample Matrix:**	Soil	**Date Received:**	11/12/2009
Sample Date:	11/11/2009	**Alamo Lab ID:**	0911053-07A	**Time Received:**	8:00
Sample Time:	11:28			**Dry Weight Corrected:**	Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Bromobenzene	108-86-1	< 1.6018			1.4000	5.0000	1.6018	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Bromochloromethane	74-97-5	< 1.4531			1.2700	5.0000	1.4531	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Bromodichloromethane	75-27-4	< 1.3501			1.1800	5.0000	1.3501	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Bromoform	75-25-2	< 0.9840			0.8600	5.0000	0.9840	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Bromomethane	74-83-9	< 1.8078			1.5800	5.0000	1.8078	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Carbon disulfide	75-15-0	< 1.2243			1.0700	5.0000	1.2243	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Carbon tetrachloride	56-23-5	< 1.0915			0.9540	5.0000	1.0915	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Chlorobenzene	108-90-7	< 1.4531			1.2700	5.0000	1.4531	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Chloroethane	75-00-3	< 1.0812			0.9450	5.0000	1.0812	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Chloroform	67-66-3	< 1.5217			1.3300	5.0000	1.5217	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Chloromethane	74-87-3	< 1.3272			1.1600	5.0000	1.3272	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.3730			1.2000	5.0000	1.3730	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.5217			1.3300	5.0000	1.5217	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Dibromochloromethane	124-48-1	< 1.1785			1.0300	5.0000	1.1785	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Dibromomethane	74-95-3	< 2.0023			1.7500	5.0000	2.0023	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Dichlorodifluoromethane	75-71-8	< 2.5172			2.2000	5.0000	2.5172	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Ethylbenzene	100-41-4	< 1.2014			1.0500	5.0000	1.2014	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Hexachlorobutadiene	87-68-3	< 2.8146			2.4600	5.0000	2.8146	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Iodomethane	74-88-4	< 1.5446			1.3500	5.0000	1.5446	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Isopropylbenzene	98-82-8	< 1.5675			1.3700	5.0000	1.5675	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
m,p-Xylene	179601-23-	< 1.5217			1.3300	10.0000	1.5217	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Methyl tert-butyl ether	1634-04-4	< 1.2128			1.0600	5.0000	1.2128	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Methylene chloride	75-09-2	< 2.9977			2.6200	5.0000	2.9977	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
n-Butylbenzene	104-51-8	< 1.0606			0.9270	5.0000	1.0606	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
n-Propylbenzene	103-65-1	< 1.4416			1.2600	5.0000	1.4416	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Naphthalene	91-20-3	2.4400		J	1.1100	15.0000	1.2700	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
o-Xylene	95-47-6	< 1.2128			1.0600	5.0000	1.2128	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
sec-Butylbenzene	135-98-8	< 1.9908			1.7400	5.0000	1.9908	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Styrene	100-42-5	< 1.2471			1.0900	5.0000	1.2471	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
tert-Butylbenzene	98-06-6	< 1.5675			1.3700	5.0000	1.5675	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Tetrachloroethene	127-18-4	< 1.1076			0.9680	5.0000	1.1076	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Toluene	108-88-3	< 0.9211			0.8050	5.0000	0.9211	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.3387			1.1700	5.0000	1.3387	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B7 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-07A **Time Received:** 8:00

Sample Time: 11:28 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
trans-1,3-Dichloropropene	10061-02-9	< 1.5789			1.3800	10.0000	1.5789	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Trichloroethene	79-01-6	< 1.0950			0.9570	5.0000	1.0950	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Trichlorofluoromethane	75-69-4	< 2.0824			1.8200	5.0000	2.0824	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
Vinyl chloride	75-01-4	< 1.3730			1.2000	2.0000	1.3730	ug/Kg	11/16/2009 11:50:00	VOC1_091116A	1	VKG	11/16/2009 11:50:00 PM
SW8270C													
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.1522			0.1330	0.3300	0.1522	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2,4-Trichlorobenzene	120-82-1	< 0.0498			0.0435	0.3300	0.0498	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2-Dichlorobenzene	95-50-1	< 0.0717			0.0627	0.3300	0.0717	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
1,2-Diphenylhydrazine	122-66-7	< 0.0105			0.0092	0.0330	0.0105	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[a]anthracene	56-55-3	< 0.0201			0.0176	0.0660	0.0201	mg/Kg	12/1/2009 5:08:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
1,3-Dichlorobenzene	541-73-1	< 0.0799			0.0698	0.3300	0.0799	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[a]pyrene	50-32-8	< 0.0106			0.0093	0.0300	0.0106	mg/Kg	12/1/2009 5:08:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
1,4-Dichlorobenzene	106-46-7	< 0.0732			0.0640	0.3300	0.0732	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[b]fluoranthene	205-99-2	< 0.0138			0.0121	0.0300	0.0138	mg/Kg	12/1/2009 5:08:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.1945			0.1700	0.3300	0.1945	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo[k]fluoranthene	207-08-9	< 0.0151			0.0132	0.0300	0.0151	mg/Kg	12/1/2009 5:08:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4,5-Trichlorophenol	95-95-4	< 0.0221			0.0193	0.3300	0.0221	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4,6-Trichlorophenol	88-06-2	< 0.0297			0.0260	0.3300	0.0297	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dichlorophenol	120-83-2	< 0.0476			0.0416	0.3300	0.0476	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenz[a,h]anthracene	53-70-3	< 0.0090			0.0079	0.0300	0.0090	mg/Kg	12/1/2009 5:08:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dimethylphenol	105-67-9	< 0.0308			0.0269	0.3300	0.0308	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dinitrophenol	51-28-5	< 0.1259			0.1100	0.3300	0.1259	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Indeno[1,2,3-cd]pyrene	193-39-5	< 0.0229			0.0200	0.0300	0.0229	mg/Kg	12/1/2009 5:08:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
2,4-Dinitrotoluene	121-14-2	< 0.0144			0.0126	0.0330	0.0144	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,6-Dichlorophenol	87-65-0	< 0.0476			0.0416	0.3300	0.0476	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2,6-Dinitrotoluene	606-20-2	< 0.0316			0.0276	0.3300	0.0316	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Chloronaphthalene	91-58-7	< 0.0382			0.0334	0.3300	0.0382	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Chlorophenol	95-57-8	< 0.0449			0.0392	0.3300	0.0449	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Methylnaphthalene	91-57-6	< 0.1602			0.1400	0.3300	0.1602	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Methylphenol	95-48-7	< 0.0501			0.0438	0.3300	0.0501	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Naphthylamine	91-59-8	< 0.0239			0.0209	0.0660	0.0239	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Nitroaniline	88-74-4	< 0.0331			0.0289	0.3300	0.0331	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
2-Nitrophenol	88-75-5	< 0.0458			0.0400	0.3300	0.0458	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19-LFCA	Contact:	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B7 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-07A **Time Received:** 8:00

Sample Time: 11:28 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
3,3´-Dichlorobenzidine	91-94-1	< 0.0208			0.0182	0.0660	0.0208	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
3-Nitroaniline	99-09-2	< 0.0807			0.0705	0.3300	0.0807	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4,6-Dinitro-2-methylphenol	534-52-1	< 0.1259			0.1100	0.3300	0.1259	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Bromophenyl phenyl ether	101-55-3	< 0.0103			0.0090	0.0330	0.0103	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chloro-3-methylphenol	59-50-7	< 0.0459			0.0401	0.3300	0.0459	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chloroaniline	106-47-8	< 0.0479			0.0419	0.3300	0.0479	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Chlorophenyl phenyl ether	7005-72-3	< 0.0058			0.0051	0.0330	0.0058	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Methylphenol	106-44-5	< 0.0600			0.0524	0.3300	0.0600	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Nitroaniline	100-01-6	< 0.1327			0.1160	0.3300	0.1327	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
4-Nitrophenol	100-02-7	< 0.0674			0.0589	0.3300	0.0674	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acenaphthene	83-32-9	< 0.1590			0.1390	0.3300	0.1590	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acenaphthylene	208-96-8	< 0.1384			0.1210	0.3300	0.1384	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Acetophenone	98-86-2	< 0.1659			0.1450	0.3300	0.1659	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Aniline	62-53-3	< 0.2792			0.2440	0.6600	0.2792	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Anthracene	120-12-7	< 0.1259			0.1100	0.3300	0.1259	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzidine	92-87-5	< 0.0446			0.0390	0.1000	0.0446	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(a)anthracene	56-55-3	< 0.0249			0.0218	0.3300	0.0249	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(a)pyrene	50-32-8	< 0.0644			0.0563	0.3300	0.0644	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(b)fluoranthene	205-99-2	< 0.0922			0.0806	0.3300	0.0922	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(g,h,i)perylene	191-24-2	< 0.1259			0.1100	0.3300	0.1259	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzo(k)fluoranthene	207-08-9	< 0.0410			0.0358	0.3300	0.0410	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzoic acid	65-85-0	< 0.3249			0.2840	0.6600	0.3249	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Benzyl alcohol	100-51-6	< 0.1819			0.1590	0.6600	0.1819	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroethoxy)methane	111-91-1	< 0.0104			0.0091	0.0330	0.0104	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroethyl)ether	111-44-4	< 0.0145			0.0128	0.0330	0.0145	mg/Kg	12/1/2009 5:08:00 A	SVOC1_091130A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.1682			0.1470	0.3300	0.1682	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Bis(2-ethylhexyl)phthalate	117-81-7	< 0.1545			0.1350	0.3300	0.1545	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Butyl benzyl phthalate	85-68-7	< 0.1568			0.1370	0.3300	0.1568	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Chrysene	218-01-9	< 0.1373			0.1200	0.3300	0.1373	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Di-n-butyl phthalate	84-74-2	< 0.1442			0.1260	0.3300	0.1442	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Di-n-octyl phthalate	117-84-0	< 0.1911			0.1670	0.3300	0.1911	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenz(a,h)anthracene	53-70-3	< 0.1057			0.0924	0.3300	0.1057	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dibenzofuran	132-64-9	< 0.1430			0.1250	0.3300	0.1430	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19-LFCA	**Contact:**	Greg Osuna

Alamo Lab Job Order Number: 0911053 **Report Date:** Date: 12/1/2009

ClientSampID: B7 14-15' **Sample Matrix:** Soil **Date Received:** 11/12/2009

Sample Date: 11/11/2009 **Alamo Lab ID:** 0911053-07A **Time Received:** 8:00

Sample Time: 11:28 **Dry Weight Corrected:** Y

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Diethyl phthalate	84-66-2	< 0.1419			0.1240	0.3300	0.1419	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Dimethyl phthalate	131-11-3	< 0.1465			0.1280	0.3300	0.1465	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Fluoranthene	206-44-0	< 0.0992			0.0867	0.3300	0.0992	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Fluorene	86-73-7	< 0.1442			0.1260	0.3300	0.1442	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorobenzene	118-74-1	< 0.0149			0.0130	0.0330	0.0149	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorobutadiene	87-68-3	< 0.1270			0.1110	0.3300	0.1270	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachlorocyclopentadiene	77-47-4	< 0.1407			0.1230	0.3300	0.1407	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Hexachloroethane	67-72-1	< 0.1016			0.0888	0.3300	0.1016	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1102			0.0963	0.3300	0.1102	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Isophorone	78-59-1	< 0.1046			0.0914	0.3300	0.1046	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0110			0.0096	0.0330	0.0110	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodimethylamine	62-75-9	< 0.0116			0.0101	0.0330	0.0116	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
N-Nitrosodiphenylamine	86-30-6	< 0.0832			0.0727	0.3300	0.0832	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Naphthalene	91-20-3	< 0.1636			0.1430	0.3300	0.1636	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Nitrobenzene	98-95-3	< 0.1659			0.1450	0.3300	0.1659	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pentachlorophenol	87-86-5	< 0.0481			0.0420	0.3300	0.0481	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Phenanthrene	85-01-8	< 0.1096			0.0958	0.3300	0.1096	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Phenol	108-95-2	< 0.1613			0.1410	0.3300	0.1613	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pyrene	129-00-0	< 0.0915			0.0800	0.3300	0.0915	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
Pyridine	110-86-1	< 0.1808			0.1580	0.3300	0.1808	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
3-Methylphenol	108-39-4	< 0.2746			0.2400	0.6600	0.2746	mg/Kg	11/30/2009 8:25:00 A	SVOC1_091129A	1	SLF	11/18/2009 9:30:00 AM
SW9010A													
Cyanide	57-12-5	< 4.8398			4.2300	10.0000	4.8398	mg/Kg	11/17/2009	CN_R_TS-11/17/2009	10	SS	11/17/2009

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: D2216 **Units.....:** wt% **Analyst...:** SS

Method Description..: PERCENT MOISTURE **Batch.....:** PMOIST-11/12/2009 **RunID:** BAL1_091112A

QC Type	Description	Lab ID	Dilution Factor	Date Time
DUP		0911047-05ADUP	1	11/13/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Percent Moisture	13.5000	13.5000				%	0 - 0	
					RPD = 0.0		RPDLimit = 15	

Test Method.....: SW7471A **Units.....:** mg/Kg **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_S-11/12/2009 **RunID:** HG_091112B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	BLK	1	11/12/2009 2:35:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	< .0318						-	

Test Method.....: SW7471A **Units.....:** mg/Kg **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_S-11/12/2009 **RunID:** HG_091112B

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	LCS	1	11/12/2009 2:35:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	0.5000		0.5000		100	%	77 - 120	

Test Method.....: SW7471A **Units.....:** mg/Kg **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_S-11/12/2009 **RunID:** HG_091112B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0911044-01AMS	1	11/12/2009 2:35:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	0.4630		0.5000		93	%	77 - 120	

Test Method.....: SW7471A **Units.....:** mg/Kg **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_S-11/12/2009 **RunID:** HG_091112B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSD	Matrix Spike Duplicate	0911044-01AMSD	1	11/12/2009 2:35:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	0.4730	0.4630	0.5000		95	%	77 - 120	
					RPD = 2.1		RPDLimit = 25	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW6010B **Units.....:** mg/Kg **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_S-11/16/2009 **RunID:** ICP_091117C

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	BLK	1	11/16/2009 1:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	< .5560						-	
Antimony	< .6850						-	
Arsenic	< .6890						-	
Barium	< .2100						-	
Beryllium	< .0440						-	
Cadmium	< .0700						-	
Calcium	< 1.5000						-	
Chromium	< .2210						-	
Cobalt	< .3700						-	
Copper	< .4470						-	
Iron	< .9860						-	
Lead	< .4500						-	
Magnesium	< 1.1800						-	
Manganese	< 1.2500						-	
Nickel	< .4790						-	
Potassium	< 4.7100						-	
Selenium	< .7800						-	
Silver	< .4800						-	
Sodium	< 2.1000						-	
Thallium	1.4700						-	
Vanadium	< .7500						-	
Zinc	< .4300						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053

Report Date: 12/1/2009

Company: Alamo 1 | PROJECT: LHAAP19-LFCA | ATTN: Greg Osuna

Test Method.....: SW6010B **Units.....:** mg/Kg **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_S-11/16/2009 **RunID:** ICP_091117C

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	LCS	1	11/16/2009 1:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	50.0000		50.0000		100	%	80 - 120	
Antimony	55.9000		50.0000		112	%	80 - 120	
Arsenic	46.6000		50.0000		93	%	80 - 120	
Barium	48.3000		50.0000		97	%	80 - 120	
Beryllium	47.1000		50.0000		94	%	80 - 120	
Cadmium	48.6000		50.0000		97	%	80 - 120	
Calcium	496.0000		500.0000		99	%	80 - 120	
Chromium	47.2000		50.0000		94	%	80 - 120	
Cobalt	46.0000		50.0000		92	%	80 - 120	
Copper	49.8000		50.0000		100	%	80 - 120	
Iron	43.8000		50.0000		88	%	80 - 120	
Lead	45.7000		50.0000		91	%	80 - 120	
Magnesium	519.0000		500.0000		104	%	80 - 120	
Manganese	47.4000		50.0000		95	%	80 - 120	
Nickel	46.4000		50.0000		93	%	80 - 120	
Potassium	478.0000		500.0000		96	%	80 - 120	
Selenium	48.5000		50.0000		97	%	80 - 120	
Silver	50.4000		50.0000		101	%	80 - 120	
Sodium	501.0000		500.0000		100	%	80 - 120	
Thallium	54.3000		50.0000		109	%	80 - 120	
Vanadium	45.5000		50.0000		91	%	80 - 120	
Zinc	45.8000		50.0000		92	%	80 - 120	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW6010B **Units.....:** mg/Kg **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_S-11/16/2009 **RunID:** ICP_091117C

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCSD	Laboratory Control Sample Duplicate	LCSD	1	11/16/2009 1:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	50.7000	50.0000	50.0000		101	%	80 - 120	
					RPD = 1.4		RPDLimit = 25	
Antimony	56.3000	55.9000	50.0000		113	%	80 - 120	
					RPD = 0.7		RPDLimit = 25	
Arsenic	44.9000	46.6000	50.0000		90	%	80 - 120	
					RPD = 3.7		RPDLimit = 25	
Barium	48.8000	48.3000	50.0000		98	%	80 - 120	
					RPD = 1.0		RPDLimit = 25	
Beryllium	47.6000	47.1000	50.0000		95	%	80 - 120	
					RPD = 1.1		RPDLimit = 25	
Cadmium	49.3000	48.6000	50.0000		99	%	80 - 120	
					RPD = 1.4		RPDLimit = 25	
Calcium	486.0000	496.0000	500.0000		97	%	80 - 120	
					RPD = 2.0		RPDLimit = 25	
Chromium	46.4000	47.2000	50.0000		93	%	80 - 120	
					RPD = 1.7		RPDLimit = 25	
Cobalt	45.2000	46.0000	50.0000		90	%	80 - 120	
					RPD = 1.8		RPDLimit = 25	
Copper	49.5000	49.8000	50.0000		99	%	80 - 120	
					RPD = 0.6		RPDLimit = 25	
Iron	46.6000	43.8000	50.0000		93	%	80 - 120	
					RPD = 6.2		RPDLimit = 25	
Lead	45.5000	45.7000	50.0000		91	%	80 - 120	
					RPD = 0.4		RPDLimit = 25	
Magnesium	517.0000	519.0000	500.0000		103	%	80 - 120	
					RPD = 0.4		RPDLimit = 25	
Manganese	48.9000	47.4000	50.0000		98	%	80 - 120	
					RPD = 3.1		RPDLimit = 25	
Nickel	47.5000	46.4000	50.0000		95	%	80 - 120	
					RPD = 2.3		RPDLimit = 25	
Potassium	477.0000	478.0000	500.0000		95	%	80 - 120	
					RPD = 0.2		RPDLimit = 25	
Selenium	49.8000	48.5000	50.0000		100	%	80 - 120	
					RPD = 2.6		RPDLimit = 25	
Silver	50.5000	50.4000	50.0000		101	%	80 - 120	
					RPD = 0.2		RPDLimit = 25	
Sodium	490.0000	501.0000	500.0000		98	%	80 - 120	
					RPD = 2.2		RPDLimit = 25	
Thallium	47.0000	54.3000	50.0000		94	%	80 - 120	
					RPD = 14.4		RPDLimit = 25	
Vanadium	45.9000	45.5000	50.0000		92	%	80 - 120	
					RPD = 0.9		RPDLimit = 25	
Zinc	46.2000	45.8000	50.0000		92	%	80 - 120	
					RPD = 0.9		RPDLimit = 25	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW6010B **Units.....:** mg/Kg **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_S-11/16/2009 **RunID:** ICP_091117C

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0911053-07AMS	1	11/16/2009 1:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	10900.0000		57.2082	6350.0000	7953	%	75 - 125	ES
Antimony	27.8000		57.2082		49	%	75 - 125	S
Arsenic	55.7000		57.2082		97	%	75 - 125	
Barium	137.0000		57.2082	124.0000	23	%	75 - 125	S
Beryllium	55.0000		57.2082		96	%	75 - 125	
Cadmium	54.8000		57.2082		96	%	75 - 125	
Calcium	252.0000		57.2082	149.0000	180	%	75 - 125	S
Chromium	76.0000		57.2082	7.1100	120	%	75 - 125	
Cobalt	57.0000		57.2082	5.0300	91	%	75 - 125	
Copper	57.1000		57.2082		100	%	75 - 125	
Iron	19800.0000		57.2082	8100.0000	20452	%	75 - 125	ES
Lead	62.5000		57.2082	16.2000	81	%	75 - 125	
Magnesium	585.0000		57.2082	382.0000	355	%	75 - 125	S
Manganese	483.0000		57.2082	507.0000	-42	%	75 - 125	ES
Nickel	55.0000		57.2082	3.1000	91	%	75 - 125	
Potassium	1010.0000		572.0824	406.0000	106	%	75 - 125	
Selenium	52.3000		57.2082		91	%	75 - 125	
Silver	61.9000		57.2082		108	%	75 - 125	
Sodium	39.1000		57.2082		68	%	75 - 125	S
Vanadium	90.8000		57.2082	16.0000	131	%	75 - 125	S
Zinc	68.0000		57.2082	7.5600	106	%	75 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW6010B **Units.....:** mg/Kg **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_S-11/16/2009 **RunID:** ICP_091117C

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSD	Matrix Spike Duplicate	0911053-07AMSD	1	11/16/2009 1:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	11000.0000	10900.0000	57.2082	6350.0000	8128	%	75 - 125	ES
					RPD = 0.9		RPDLimit = 25	
Antimony	30.0000	27.8000	57.2082		52	%	75 - 125	S
					RPD = 7.6		RPDLimit = 25	
Arsenic	53.7000	55.7000	57.2082		94	%	75 - 125	
					RPD = 3.7		RPDLimit = 25	
Barium	140.0000	137.0000	57.2082	124.0000	28	%	75 - 125	S
					RPD = 2.2		RPDLimit = 25	
Beryllium	55.3000	55.0000	57.2082		97	%	75 - 125	
					RPD = 0.5		RPDLimit = 25	
Cadmium	55.6000	54.8000	57.2082		97	%	75 - 125	
					RPD = 1.4		RPDLimit = 25	
Calcium	223.0000	252.0000	57.2082	149.0000	129	%	75 - 125	S
					RPD = 12.2		RPDLimit = 25	
Chromium	74.9000	76.0000	57.2082	7.1100	118	%	75 - 125	
					RPD = 1.5		RPDLimit = 25	
Cobalt	58.0000	57.0000	57.2082	5.0300	93	%	75 - 125	
					RPD = 1.7		RPDLimit = 25	
Copper	55.0000	57.1000	57.2082		96	%	75 - 125	
					RPD = 3.7		RPDLimit = 25	
Iron	19700.0000	19800.0000	57.2082	8100.0000	20277	%	75 - 125	ES
					RPD = 0.5		RPDLimit = 25	
Lead	63.0000	62.5000	57.2082	16.2000	82	%	75 - 125	
					RPD = 0.8		RPDLimit = 25	
Magnesium	628.0000	585.0000	57.2082	382.0000	430	%	75 - 125	S
					RPD = 7.1		RPDLimit = 25	
Manganese	490.0000	483.0000	57.2082	507.0000	-30	%	75 - 125	ES
					RPD = 1.4		RPDLimit = 25	
Nickel	56.5000	55.0000	57.2082	3.1000	93	%	75 - 125	
					RPD = 2.7		RPDLimit = 25	
Potassium	694.0000	1010.0000	572.0824	406.0000	50	%	75 - 125	S
					RPD = 37.1		RPDLimit = 25	
Selenium	54.6000	52.3000	5.7208		954	%	75 - 125	S
					RPD = 4.3		RPDLimit = 25	
Silver	63.2000	61.9000	57.2082		110	%	75 - 125	
					RPD = 2.1		RPDLimit = 25	
Sodium	35.0000	39.1000	57.2082		61	%	75 - 125	S
					RPD = 11.1		RPDLimit = 25	
Vanadium	92.4000	90.8000	57.2082	16.0000	134	%	75 - 125	S
					RPD = 1.7		RPDLimit = 25	
Zinc	66.5000	68.0000	57.2082	7.5600	103	%	75 - 125	
					RPD = 2.2		RPDLimit = 25	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	11BLK18A	1	11/30/2009 2:27:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	< .1330						-	
1,2,4-Trichlorobenzene	< .0435						-	
1,2-Dichlorobenzene	< .0627						-	
1,2-Diphenylhydrazine	< .0092						-	
1,3-Dichlorobenzene	< .0698						-	
1,4-Dichlorobenzene	< .0640						-	
2,3,4,6-Tetrachlorophenol	< .1700						-	
2,4,5-Trichlorophenol	< .0193						-	
2,4,6-Trichlorophenol	< .0260						-	
2,4-Dichlorophenol	< .0416						-	
2,4-Dimethylphenol	< .0269						-	
2,4-Dinitrophenol	< .1100						-	
2,4-Dinitrotoluene	< .0126						-	
2,6-Dichlorophenol	< .0416						-	
2,6-Dinitrotoluene	< .0276						-	
2-Chloronaphthalene	< .0334						-	
2-Chlorophenol	< .0392						-	
2-Methylnaphthalene	< .1400						-	
2-Methylphenol	< .0438						-	
2-Naphthylamine	< .0209						-	
2-Nitroaniline	< .0289						-	
2-Nitrophenol	< .0400						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	11BLK18A	1	11/30/2009 2:27:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
3,3´-Dichlorobenzidine	< .0182						-	
3-Nitroaniline	< .0705						-	
4,6-Dinitro-2-methylphenol	< .1100						-	
4-Bromophenyl phenyl ether	< .0090						-	
4-Chloro-3-methylphenol	< .0401						-	
4-Chloroaniline	< .0419						-	
4-Chlorophenyl phenyl ether	< .0051						-	
4-Methylphenol	< .0524						-	
4-Nitroaniline	< .1160						-	
4-Nitrophenol	< .0589						-	
Acenaphthene	< .1390						-	
Acenaphthylene	< .1210						-	
Acetophenone	< .1450						-	
Aniline	< .2440						-	
Anthracene	< .1100						-	
Benzidine	< .0390						-	
Benzo(a)anthracene	< .0218						-	
Benzo(a)pyrene	< .0563						-	
Benzo(b)fluoranthene	< .0806						-	
Benzo(g,h,i)perylene	< .1100						-	
Benzo(k)fluoranthene	< .0358						-	
Benzoic acid	< .2840						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	11BLK18A	1	11/30/2009 2:27:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Benzyl alcohol	< .1590						-	
Bis(2-chloroethoxy)methane	< .0091						-	
Bis(2-chloroethyl)ether	< .1440						-	
Bis(2-chloroisopropyl)ether	< .1470						-	
Bis(2-ethylhexyl)phthalate	< .1350						-	
Butyl benzyl phthalate	< .1370						-	
Chrysene	< .1200						-	
Di-n-butyl phthalate	< .1260						-	
Di-n-octyl phthalate	< .1670						-	
Dibenz(a,h)anthracene	< .0924						-	
Dibenzofuran	< .1250						-	
Diethyl phthalate	< .1240						-	
Dimethyl phthalate	< .1280						-	
Fluoranthene	< .0867						-	
Fluorene	< .1260						-	
Hexachlorobenzene	< .0130						-	
Hexachlorobutadiene	< .1110						-	
Hexachlorocyclopentadiene	< .1230						-	
Hexachloroethane	< .0888						-	
Indeno(1,2,3-cd)pyrene	< .0963						-	
Isophorone	< .0914						-	
N-Nitrosodi-n-propylamine	< .0096						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	11BLK18A	1	11/30/2009 2:27:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
N-Nitrosodimethylamine	< .0101						-	
N-Nitrosodiphenylamine	< .0727						-	
Naphthalene	< .1430						-	
Nitrobenzene	< .1450						-	
Pentachlorophenol	< .0420						-	
Phenanthrene	< .0958						-	
Phenol	< .1410						-	
Pyrene	< .0800						-	
Pyridine	< .1580						-	
3-Methylphenol	< .2400						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		11LCS18A	1	11/30/2009 3:07:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	1.9700		1.6700		118	%	46 - 135	
1,2,4-Trichlorobenzene	1.8500		1.6700		111	%	44 - 125	
1,2-Dichlorobenzene	1.8200		1.6700		109	%	45 - 125	
1,2-Diphenylhydrazine	1.6500		1.6700		99	%	39 - 135	
1,3-Dichlorobenzene	1.6900		1.6700		101	%	39 - 125	
1,4-Dichlorobenzene	1.6700		1.6700		100	%	35 - 125	
2,3,4,6-Tetrachlorophenol	1.3600		1.6700		81	%	26 - 139	
2,4,5-Trichlorophenol	1.6300		1.6700		98	%	49 - 125	
2,4,6-Trichlorophenol	2.0400		1.6700		122	%	43 - 125	
2,4-Dichlorophenol	2.0100		1.6700		120	%	45 - 125	
2,4-Dimethylphenol	1.7100		1.6700		102	%	32 - 125	
2,4-Dinitrophenol	0.8200		1.6700		49	%	25 - 132	
2,4-Dinitrotoluene	1.9200		1.6700		115	%	48 - 125	
2,6-Dichlorophenol	1.4000		1.6700		84	%	46 - 130	
2,6-Dinitrotoluene	1.7600		1.6700		105	%	48 - 125	
2-Chloronaphthalene	1.2300		1.6700		74	%	45 - 125	
2-Chlorophenol	1.5700		1.6700		94	%	44 - 125	
2-Methylnaphthalene	1.4800		1.6700		89	%	47 - 125	
2-Methylphenol	1.6400		1.6700		98	%	40 - 125	
2-Naphthylamine	1.6700		1.6700		100	%	32 - 135	
2-Nitroaniline	1.7200		1.6700		103	%	44 - 125	
2-Nitrophenol	1.9500		1.6700		117	%	42 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		11LCS18A	1	11/30/2009 3:07:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
3,3´-Dichlorobenzidine	1.2000		1.6700		72	%	25 - 128	
3-Nitroaniline	1.9300		1.6700		116	%	27 - 125	
4,6-Dinitro-2-methylphenol	1.8400		1.6700		110	%	29 - 137	
4-Bromophenyl phenyl ether	1.9100		1.6700		114	%	46 - 125	
4-Chloro-3-methylphenol	2.0100		1.6700		120	%	46 - 125	
4-Chloroaniline	1.5600		1.6700		93	%	25 - 125	
4-Chlorophenyl phenyl ether	0.9360		1.6700		56	%	47 - 125	
4-Methylphenol	2.0800		1.6700		125	%	41 - 125	
4-Nitroaniline	0.9560		1.6700		57	%	34 - 125	
4-Nitrophenol	1.2200		1.6700		73	%	25 - 138	
Acenaphthene	1.3200		1.6700		79	%	46 - 125	
Acenaphthylene	1.6100		1.6700		96	%	44 - 125	
Acetophenone	1.3400		1.6700		80	%	39 - 131	
Aniline	1.5200		1.6700		91	%	29 - 132	
Anthracene	1.3100		1.6700		78	%	53 - 125	
Benzidine	1.3200		1.6700		79	%	15 - 245	
Benzo(a)anthracene	1.4100		1.6700		84	%	52 - 125	
Benzo(a)pyrene	1.4700		1.6700		88	%	50 - 125	
Benzo(b)fluoranthene	1.7000		1.6700		102	%	45 - 125	
Benzo(g,h,i)perylene	1.4000		1.6700		84	%	38 - 126	
Benzo(k)fluoranthene	0.9990		1.6700		60	%	45 - 125	
Benzoic acid	1.6800		1.6700		101	%	25 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		11LCS18A	1	11/30/2009 3:07:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Benzyl alcohol	1.8700		1.6700		112	%	25 - 125	
Bis(2-chloroethoxy)methane	1.4000		1.6700		84	%	43 - 125	
Bis(2-chloroethyl)ether	1.4800		1.6700		89	%	38 - 125	
Bis(2-chloroisopropyl)ether	1.1700		1.6700		70	%	25 - 125	
Bis(2-ethylhexyl)phthalate	1.3500		1.6700		81	%	47 - 127	
Butyl benzyl phthalate	1.4600		1.6700		87	%	49 - 125	
Chrysene	1.8800		1.6700		113	%	53 - 125	
Di-n-butyl phthalate	1.0500		1.6700		63	%	56 - 125	
Di-n-octyl phthalate	1.8000		1.6700		108	%	41 - 132	
Dibenz(a,h)anthracene	1.8000		1.6700		108	%	41 - 125	
Dibenzofuran	1.1800		1.6700		71	%	51 - 125	
Diethyl phthalate	1.4400		1.6700		86	%	50 - 125	
Dimethyl phthalate	1.6400		1.6700		98	%	49 - 125	
Fluoranthene	1.7800		1.6700		107	%	54 - 125	
Fluorene	1.8700		1.6700		112	%	49 - 125	
Hexachlorobenzene	2.0000		1.6700		120	%	47 - 125	
Hexachlorobutadiene	2.0200		1.6700		121	%	40 - 125	
Hexachlorocyclopentadiene	1.4800		1.6700		89	%	36 - 135	
Hexachloroethane	1.8000		1.6700		108	%	34 - 125	
Indeno(1,2,3-cd)pyrene	1.8400		1.6700		110	%	38 - 125	
Isophorone	1.4700		1.6700		88	%	43 - 125	
N-Nitrosodi-n-propylamine	1.5800		1.6700		95	%	40 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053

Report Date: 12/1/2009

Company: Alamo 1 | PROJECT: LHAAP19-LFCA | ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		11LCS18A	1	11/30/2009 3:07:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
N-Nitrosodimethylamine	1.2200		1.6700		73	%	33 - 135	
N-Nitrosodiphenylamine	1.5200		1.6700		91	%	49 - 125	
Naphthalene	1.5700		1.6700		94	%	40 - 125	
Nitrobenzene	1.9100		1.6700		114	%	41 - 125	
Pentachlorophenol	1.8500		1.6700		111	%	25 - 125	
Phenanthrene	1.5700		1.6700		94	%	50 - 125	
Phenol	1.6200		1.6700		97	%	39 - 125	
Pyrene	1.7000		1.6700		102	%	46 - 125	
Pyridine	0.9770		1.6700		59	%	29 - 139	
3-Methylphenol	2.0200		1.6700		121	%	37 - 135	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0911053-02AMSD	1	11/30/2009 5:07:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	1.7900	1.8400	1.6700		107	%	46 - 135	
					RPD = 2.8		RPDLimit = 30	
1,2,4-Trichlorobenzene	1.6200	1.6500	1.6700		97	%	44 - 125	
					RPD = 1.8		RPDLimit = 30	
1,2-Dichlorobenzene	1.5800	1.5900	1.6700		95	%	45 - 125	
					RPD = 0.6		RPDLimit = 30	
1,2-Diphenylhydrazine	1.5000	1.5200	1.6700		90	%	39 - 135	
					RPD = 1.3		RPDLimit = 30	
1,3-Dichlorobenzene	1.4200	1.4500	1.6700		85	%	39 - 125	
					RPD = 2.1		RPDLimit = 30	
1,4-Dichlorobenzene	1.4200	1.4400	1.6700		85	%	35 - 125	
					RPD = 1.4		RPDLimit = 30	
2,3,4,6-Tetrachlorophenol	1.0300	1.3600	1.6700		62	%	26 - 139	
					RPD = 27.6		RPDLimit = 30	
2,4,5-Trichlorophenol	1.5600	1.5500	1.6700		93	%	49 - 125	
					RPD = 0.6		RPDLimit = 30	
2,4,6-Trichlorophenol	1.9800	1.9800	1.6700		119	%	43 - 125	
					RPD = 0.0		RPDLimit = 30	
2,4-Dichlorophenol	1.7800	1.8400	1.6700		107	%	45 - 125	
					RPD = 3.3		RPDLimit = 30	
2,4-Dimethylphenol	1.7600	1.8300	1.6700		105	%	32 - 125	
					RPD = 3.9		RPDLimit = 30	
2,4-Dinitrophenol	0.8820	0.8270	1.6700		53	%	25 - 132	
					RPD = 6.4		RPDLimit = 30	
2,4-Dinitrotoluene	1.7800	1.8000	1.6700		107	%	48 - 125	
					RPD = 1.1		RPDLimit = 30	
2,6-Dichlorophenol	1.3100	1.3300	1.6700		78	%	46 - 130	
					RPD = 1.5		RPDLimit = 30	
2,6-Dinitrotoluene	1.6500	1.6800	1.6700		99	%	48 - 125	
					RPD = 1.8		RPDLimit = 30	
2-Chloronaphthalene	1.1700	1.1900	1.6700		70	%	45 - 125	
					RPD = 1.7		RPDLimit = 30	
2-Chlorophenol	1.4700	1.4700	1.6700		88	%	44 - 125	
					RPD = 0.0		RPDLimit = 30	
2-Methylnaphthalene	1.2800	1.3200	1.6700		77	%	47 - 125	
					RPD = 3.1		RPDLimit = 30	
2-Methylphenol	1.4800	1.5500	1.6700		89	%	40 - 125	
					RPD = 4.6		RPDLimit = 30	
2-Naphthylamine	1.4700	1.5100	1.6700		88	%	32 - 135	
					RPD = 2.7		RPDLimit = 30	
2-Nitroaniline	1.5600	1.5900	1.6700		93	%	44 - 125	
					RPD = 1.9		RPDLimit = 30	
2-Nitrophenol	1.7900	1.8400	1.6700		107	%	42 - 125	
					RPD = 2.8		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0911053-02AMSD	1	11/30/2009 5:07:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
3,3´-Dichlorobenzidine	0.9740	1.1900	1.6700		58	%	25 - 128	
					RPD = 20.0		RPDLimit = 30	
3-Nitroaniline	1.8000	1.7900	1.6700		108	%	27 - 125	
					RPD = 0.6		RPDLimit = 30	
4,6-Dinitro-2-methylphenol	1.9100	1.7300	1.6700		114	%	29 - 137	
					RPD = 9.9		RPDLimit = 30	
4-Bromophenyl phenyl ether	1.6300	1.6600	1.6700		98	%	46 - 125	
					RPD = 1.8		RPDLimit = 30	
4-Chloro-3-methylphenol	1.7300	1.7700	1.6700		104	%	46 - 125	
					RPD = 2.3		RPDLimit = 30	
4-Chloroaniline	1.7500	1.8200	1.6700		105	%	25 - 125	
					RPD = 3.9		RPDLimit = 30	
4-Chlorophenyl phenyl ether	1.4700	1.4800	1.6700		88	%	47 - 125	
					RPD = 0.7		RPDLimit = 30	
4-Methylphenol	0.8320	0.8680	1.6700		50	%	41 - 125	
					RPD = 4.2		RPDLimit = 30	
4-Nitroaniline	1.8300	1.8000	1.6700		110	%	34 - 125	
					RPD = 1.7		RPDLimit = 30	
4-Nitrophenol	0.7360	0.9470	1.6700		44	%	25 - 138	
					RPD = 25.1		RPDLimit = 30	
Acenaphthene	1.1600	1.1800	1.6700		69	%	46 - 125	
					RPD = 1.7		RPDLimit = 30	
Acenaphthylene	1.2500	1.2800	1.6700		75	%	44 - 125	
					RPD = 2.4		RPDLimit = 30	
Acetophenone	1.4600	1.4900	1.6700		87	%	39 - 131	
					RPD = 2.0		RPDLimit = 30	
Aniline	1.2300	1.2300	1.6700		74	%	29 - 132	
					RPD = 0.0		RPDLimit = 30	
Anthracene	1.4300	1.4100	1.6700		86	%	53 - 125	
					RPD = 1.4		RPDLimit = 30	
Benzidine	1.3800	1.2400	1.6700		83	%	15 - 245	
					RPD = 10.7		RPDLimit = 30	
Benzo(a)anthracene	1.2500	1.2200	1.6700		75	%	52 - 125	
					RPD = 2.4		RPDLimit = 30	
Benzo(a)pyrene	1.2700	1.3100	1.6700		76	%	50 - 125	
					RPD = 3.1		RPDLimit = 30	
Benzo(b)fluoranthene	1.4000	1.3400	1.6700		84	%	45 - 125	
					RPD = 4.4		RPDLimit = 30	
Benzo(g,h,i)perylene	1.2500	1.3800	1.6700		75	%	38 - 126	
					RPD = 9.9		RPDLimit = 30	
Benzo(k)fluoranthene	1.3600	1.3000	1.6700		81	%	45 - 125	
					RPD = 4.5		RPDLimit = 30	
Benzoic acid	1.0100	1.0000	1.6700		60	%	25 - 125	
					RPD = 1.0		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0911053-02AMSD	1	11/30/2009 5:07:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Benzyl alcohol	1.4200	1.4400	1.6700		85	%	25 - 125	
					RPD = 1.4		RPDLimit = 30	
Bis(2-chloroethoxy)methane	1.7100	1.7500	1.6700		102	%	43 - 125	
					RPD = 2.3		RPDLimit = 30	
Bis(2-chloroethyl)ether	1.2600	1.2900	1.6700		75	%	38 - 125	
					RPD = 2.4		RPDLimit = 30	
Bis(2-chloroisopropyl)ether	1.2900	1.3000	1.6700		77	%	25 - 125	
					RPD = 0.8		RPDLimit = 30	
Bis(2-ethylhexyl)phthalate	1.0600	1.1200	1.6700		63	%	47 - 127	
					RPD = 5.5		RPDLimit = 30	
Butyl benzyl phthalate	1.1900	1.2600	1.6700		71	%	49 - 125	
					RPD = 5.7		RPDLimit = 30	
Chrysene	1.3000	1.4000	1.6700		78	%	53 - 125	
					RPD = 7.4		RPDLimit = 30	
Di-n-butyl phthalate	1.7300	1.7800	1.6700		104	%	56 - 125	
					RPD = 2.8		RPDLimit = 30	
Di-n-octyl phthalate	0.9480	1.0200	1.6700		57	%	41 - 132	
					RPD = 7.3		RPDLimit = 30	
Dibenz(a,h)anthracene	1.4200	1.5400	1.6700		85	%	41 - 125	
					RPD = 8.1		RPDLimit = 30	
Dibenzofuran	1.6700	1.7200	1.6700		100	%	51 - 125	
					RPD = 2.9		RPDLimit = 30	
Diethyl phthalate	1.1600	1.1500	1.6700		69	%	50 - 125	
					RPD = 0.9		RPDLimit = 30	
Dimethyl phthalate	1.3700	1.3900	1.6700		82	%	49 - 125	
					RPD = 1.4		RPDLimit = 30	
Fluoranthene	1.5300	1.5400	1.6700		92	%	54 - 125	
					RPD = 0.7		RPDLimit = 30	
Fluorene	1.6700	1.7200	1.6700		100	%	49 - 125	
					RPD = 2.9		RPDLimit = 30	
Hexachlorobenzene	1.7400	1.7800	1.6700		104	%	47 - 125	
					RPD = 2.3		RPDLimit = 30	
Hexachlorobutadiene	1.6800	1.7200	1.6700		101	%	40 - 125	
					RPD = 2.4		RPDLimit = 30	
Hexachlorocyclopentadiene	1.8300	1.8300	1.6700		110	%	36 - 135	
					RPD = 0.0		RPDLimit = 30	
Hexachloroethane	1.2000	1.2000	1.6700		72	%	34 - 125	
					RPD = 0.0		RPDLimit = 30	
Indeno(1,2,3-cd)pyrene	1.4100	1.5200	1.6700		84	%	38 - 125	
					RPD = 7.5		RPDLimit = 30	
Isophorone	1.6500	1.6800	1.6700		99	%	43 - 125	
					RPD = 1.8		RPDLimit = 30	
N-Nitrosodi-n-propylamine	1.3900	1.4400	1.6700		83	%	40 - 125	
					RPD = 3.5		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0911053-02AMSD	1	11/30/2009 5:07:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
N-Nitrosodimethylamine	0.9540	1.1400	1.6700		57	%	33 - 135	
					RPD = 17.8		RPDLimit = 30	
N-Nitrosodiphenylamine	1.3600	1.3600	1.6700		81	%	49 - 125	
					RPD = 0.0		RPDLimit = 30	
Naphthalene	1.4100	1.4400	1.6700		84	%	40 - 125	
					RPD = 2.1		RPDLimit = 30	
Nitrobenzene	1.4400	1.2600	1.6700		86	%	41 - 125	
					RPD = 13.3		RPDLimit = 30	
Pentachlorophenol	1.9500	1.7800	1.6700		117	%	25 - 125	
					RPD = 9.1		RPDLimit = 30	
Phenanthrene	1.7900	1.8600	1.6700		107	%	50 - 125	
					RPD = 3.8		RPDLimit = 30	
Phenol	1.4200	1.4400	1.6700		85	%	39 - 125	
					RPD = 1.4		RPDLimit = 30	
Pyrene	1.4300	1.5400	1.6700		86	%	46 - 125	
					RPD = 7.4		RPDLimit = 30	
Pyridine	0.8440	0.8700	1.6700		51	%	29 - 139	
					RPD = 3.0		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0911053-02AMS	1	11/30/2009 4:27:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	1.8400		1.6700		110	%	46 - 135	
1,2,4-Trichlorobenzene	1.6500		1.6700		99	%	44 - 125	
1,2-Dichlorobenzene	1.5900		1.6700		95	%	45 - 125	
1,2-Diphenylhydrazine	1.5200		1.6700		91	%	39 - 135	
1,3-Dichlorobenzene	1.4500		1.6700		87	%	39 - 125	
1,4-Dichlorobenzene	1.4400		1.6700		86	%	35 - 125	
2,3,4,6-Tetrachlorophenol	1.3600		1.6700		81	%	26 - 139	
2,4,5-Trichlorophenol	1.5500		1.6700		93	%	49 - 125	
2,4,6-Trichlorophenol	1.9800		1.6700		119	%	43 - 125	
2,4-Dichlorophenol	1.8400		1.6700		110	%	45 - 125	
2,4-Dimethylphenol	1.8300		1.6700		110	%	32 - 125	
2,4-Dinitrophenol	0.8270		1.6700		50	%	25 - 132	
2,4-Dinitrotoluene	1.8000		1.6700		108	%	48 - 125	
2,6-Dichlorophenol	1.3300		1.6700		80	%	46 - 130	
2,6-Dinitrotoluene	1.6800		1.6700		101	%	48 - 125	
2-Chloronaphthalene	1.1900		1.6700		71	%	45 - 125	
2-Chlorophenol	1.4700		1.6700		88	%	44 - 125	
2-Methylnaphthalene	1.3200		1.6700		79	%	47 - 125	
2-Methylphenol	1.5500		1.6700		93	%	40 - 125	
2-Naphthylamine	1.5100		1.6700		90	%	32 - 135	
2-Nitroaniline	1.5900		1.6700		95	%	44 - 125	
2-Nitrophenol	1.8400		1.6700		110	%	42 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0911053-02AMS	1	11/30/2009 4:27:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
3,3´-Dichlorobenzidine	1.1900		1.6700		71	%	25 - 128	
3-Nitroaniline	1.7900		1.6700		107	%	27 - 125	
4,6-Dinitro-2-methylphenol	1.7300		1.6700		104	%	29 - 137	
4-Bromophenyl phenyl ether	1.6600		1.6700		99	%	46 - 125	
4-Chloro-3-methylphenol	1.7700		1.6700		106	%	46 - 125	
4-Chloroaniline	1.8200		1.6700		109	%	25 - 125	
4-Chlorophenyl phenyl ether	1.4800		1.6700		89	%	47 - 125	
4-Methylphenol	0.8680		1.6700		52	%	41 - 125	
4-Nitroaniline	1.8000		1.6700		108	%	34 - 125	
4-Nitrophenol	0.9470		1.6700		57	%	25 - 138	
Acenaphthene	1.1800		1.6700		71	%	46 - 125	
Acenaphthylene	1.2800		1.6700		77	%	44 - 125	
Acetophenone	1.4900		1.6700		89	%	39 - 131	
Aniline	1.2300		1.6700		74	%	29 - 132	
Anthracene	1.4100		1.6700		84	%	53 - 125	
Benzidine	1.2400		1.6700		74	%	15 - 245	
Benzo(a)anthracene	1.2200		1.6700		73	%	52 - 125	
Benzo(a)pyrene	1.3100		1.6700		78	%	50 - 125	
Benzo(b)fluoranthene	1.3400		1.6700		80	%	45 - 125	
Benzo(g,h,i)perylene	1.3800		1.6700		83	%	38 - 126	
Benzo(k)fluoranthene	1.3000		1.6700		78	%	45 - 125	
Benzoic acid	1.0000		1.6700		60	%	25 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0911053-02AMS	1	11/30/2009 4:27:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Benzyl alcohol	1.4400		1.6700		86	%	25 - 125	
Bis(2-chloroethoxy)methane	1.7500		1.6700		105	%	43 - 125	
Bis(2-chloroethyl)ether	1.2900		1.6700		77	%	38 - 125	
Bis(2-chloroisopropyl)ether	1.3000		1.6700		78	%	25 - 125	
Bis(2-ethylhexyl)phthalate	1.1200		1.6700		67	%	47 - 127	
Butyl benzyl phthalate	1.2600		1.6700		75	%	49 - 125	
Chrysene	1.4000		1.6700		84	%	53 - 125	
Di-n-butyl phthalate	1.7800		1.6700		107	%	56 - 125	
Di-n-octyl phthalate	1.0200		1.6700		61	%	41 - 132	
Dibenz(a,h)anthracene	1.5400		1.6700		92	%	41 - 125	
Dibenzofuran	1.7200		1.6700		103	%	51 - 125	
Diethyl phthalate	1.1500		1.6700		69	%	50 - 125	
Dimethyl phthalate	1.3900		1.6700		83	%	49 - 125	
Fluoranthene	1.5400		1.6700		92	%	54 - 125	
Fluorene	1.7200		1.6700		103	%	49 - 125	
Hexachlorobenzene	1.7800		1.6700		107	%	47 - 125	
Hexachlorobutadiene	1.7200		1.6700		103	%	40 - 125	
Hexachlorocyclopentadiene	1.8300		1.6700		110	%	36 - 135	
Hexachloroethane	1.2000		1.6700		72	%	34 - 125	
Indeno(1,2,3-cd)pyrene	1.5200		1.6700		91	%	38 - 125	
Isophorone	1.6800		1.6700		101	%	43 - 125	
N-Nitrosodi-n-propylamine	1.4400		1.6700		86	%	40 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_091129A **RunID:** SVOC1_091129A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0911053-02AMS	1	11/30/2009 4:27:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
N-Nitrosodimethylamine	1.1400		1.6700		68	%	33 - 135	
N-Nitrosodiphenylamine	1.3600		1.6700		81	%	49 - 125	
Naphthalene	1.4400		1.6700		86	%	40 - 125	
Nitrobenzene	1.2600		1.6700		75	%	41 - 125	
Pentachlorophenol	1.7800		1.6700		107	%	25 - 125	
Phenanthrene	1.8600		1.6700		111	%	50 - 125	
Phenol	1.4400		1.6700		86	%	39 - 125	
Pyrene	1.5400		1.6700		92	%	46 - 125	
Pyridine	0.8700		1.6700		52	%	29 - 139	
3-Methylphenol	1.3400		1.6700		80	%	22 - 148	

Test Method.....: SW8270C **Units.....:** mg/Kg **Analyst...:** SLF

Method Description..: SVOCs by SIM GC/MS **Batch.....:** SVOC1_091130A **RunID:** SVOC1_091130A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	11BLK18A	1	12/1/2009 1:11:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Benzo[a]anthracene	< .0176						-	
Benzo[a]pyrene	< .0093						-	
Benzo[b]fluoranthene	< .0121						-	
Benzo[k]fluoranthene	< .0132						-	
Dibenz[a,h]anthracene	< .0079						-	
Indeno[1,2,3-cd]pyrene	< .0200						-	
Bis(2-chloroethyl)ether	< 12.800						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW9010A **Units.....:** mg/Kg **Analyst...:** SS

Method Description..: CYANIDE, TOTAL **Batch.....:** CN_R_TS-11/17/2009 **RunID:** UV1_091117A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	BLK	10	11/17/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Cyanide	< 4.2300						-	

Test Method.....: SW9010A **Units.....:** mg/Kg **Analyst...:** SS

Method Description..: CYANIDE, TOTAL **Batch.....:** CN_R_TS-11/17/2009 **RunID:** UV1_091117A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	LCS	10	11/17/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Cyanide	0.0460		0.0500		92	%	80 - 120	

Test Method.....: SW9010A **Units.....:** mg/Kg **Analyst...:** SS

Method Description..: CYANIDE, TOTAL **Batch.....:** CN_R_TS-11/17/2009 **RunID:** UV1_091117A

QC Type	Description	Lab ID	Dilution Factor	Date Time
DUP		0911053-02ADUP	10	11/17/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Cyanide	< 4.2300					%	0 - 0	
					RPD = 0		RPDLimit = 30	

Test Method.....: SW7196A **Units.....:** mg/kg **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_S-11/19/2009 **RunID:** UV1_091119C

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	BLK	1	11/19/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	< .2630						-	

Test Method.....: SW7196A **Units.....:** mg/kg **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_S-11/19/2009 **RunID:** UV1_091119C

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	LCS	1	11/19/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	9.4000		10.0000		94	%	75 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053

Report Date: 12/1/2009

Company: Alamo 1 | PROJECT: LHAAP19-LFCA | ATTN: Greg Osuna

Test Method.....: SW7196A **Units.....:** mg/kg **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_S-11/19/2009 **RunID:** UV1_091119C

QC Type	Description	Lab ID	Dilution Factor	Date Time
DUP		0911053-07ADUP	1	11/19/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	< .2630					%	0 - 0	
					RPD = 0		RPDLimit = 30	

Test Method.....: SW7196A **Units.....:** mg/kg **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_S-11/19/2009 **RunID:** UV1_091119C

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0911053-07AMS	1	11/19/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	10.2000		10.0000		102	%	75 - 125	E

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QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	11BLK16A	1	11/16/2009 2:22:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	< 1.1200						-	
1,1,1-Trichloroethane	< 1.5700						-	
1,1,2,2-Tetrachloroethane	< .7540						-	
1,1,2-Trichloroethane	< 1.2400						-	
1,1-Dichloroethane	< 1.1400						-	
1,1-Dichloroethene	< 1.3300						-	
1,1-Dichloropropene	< .8630						-	
1,2,3-Trichlorobenzene	< 1.1200						-	
1,2,3-Trichloropropane	< 1.4200						-	
1,2,4-Trichlorobenzene	< 2.0900						-	
1,2,4-Trimethylbenzene	< .8320						-	
1,2-Dibromo-3-chloropropane	< 1.9100						-	
1,2-Dibromoethane	< .9710						-	
1,2-Dichlorobenzene	< .8100						-	
1,2-Dichloroethane	< .8830						-	
1,2-Dichloropropane	< 1.1300						-	
1,3,5-Trimethylbenzene	< .9690						-	
1,3-Dichlorobenzene	< 1.0300						-	
1,3-Dichloropropane	< .7610						-	
1,4-Dichlorobenzene	< .8300						-	
1-Chlorohexane	< .5540						-	
2,2-Dichloropropane	< 1.0400						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	11BLK16A	1	11/16/2009 2:22:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Butanone	< .5530						-	
2-Chlorotoluene	< 1.3700						-	
2-Hexanone	< .8590						-	
4-Chlorotoluene	< 1.1000						-	
4-Isopropyltoluene	< 2.9100						-	
4-Methyl-2-pentanone	< 1.8800						-	
Acetone	< 1.4900						-	
Allyl chloride	< 3.1600						-	
Benzene	< .7570						-	
Bromobenzene	< 1.4000						-	
Bromochloromethane	< 1.2700						-	
Bromodichloromethane	< 1.1800						-	
Bromoform	< .8600						-	
Bromomethane	< 1.5800						-	
Carbon disulfide	< 1.0700						-	
Carbon tetrachloride	< .9540						-	
Chlorobenzene	< 1.2700						-	
Chloroethane	< .9450						-	
Chloroform	< 1.3300						-	
Chloromethane	< 1.1600						-	
cis-1,2-Dichloroethene	< 1.2000						-	
cis-1,3-Dichloropropene	< 1.3300						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	11BLK16A	1	11/16/2009 2:22:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Dibromochloromethane	< 1.0300						-	
Dibromomethane	< 1.7500						-	
Dichlorodifluoromethane	< 2.2000						-	
Ethylbenzene	< 1.0500						-	
Hexachlorobutadiene	< 2.4600						-	
Iodomethane	< 1.3500						-	
Isopropylbenzene	< 1.3700						-	
m,p-Xylene	< 1.3300						-	
Methyl tert-butyl ether	< 1.0600						-	
Methylene chloride	< 2.6200						-	
n-Butylbenzene	< .9270						-	
n-Propylbenzene	< 1.2600						-	
Naphthalene	< 1.1100						-	
o-Xylene	< 1.0600						-	
sec-Butylbenzene	< 1.7400						-	
Styrene	< 1.0900						-	
tert-Butylbenzene	< 1.3700						-	
Tetrachloroethene	< .9680						-	
Toluene	< .8050						-	
trans-1,2-Dichloroethene	< 1.1700						-	
trans-1,3-Dichloropropene	< 1.3800						-	
Trichloroethene	< .9570						-	

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QUALITY CONTROL RESULTS

WorkOrder: 0911053

Report Date: 12/1/2009

Company: Alamo 1 | PROJECT: LHAAP19-LFCA | ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	11BLK16A	1	11/16/2009 2:22:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Trichlorofluoromethane	< 1.8200						-	
Vinyl chloride	< 1.2000						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		11LCS16A	1	11/16/2009 3:06:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	46.1000		50.0000		92	%	56 - 140 RPDLimit = 30	
1,1,1-Trichloroethane	46.0000		50.0000		92	%	42 - 177 RPDLimit = 30	
1,1,2,2-Tetrachloroethane	44.9000		50.0000		90	%	55 - 128 RPDLimit = 30	
1,1,2-Trichloroethane	47.2000		50.0000		94	%	75 - 121 RPDLimit = 30	
1,1-Dichloroethane	45.8000		50.0000		92	%	55 - 150 RPDLimit = 30	
1,1-Dichloroethene	43.9000		50.0000		88	%	59 - 143 RPDLimit = 30	
1,1-Dichloropropene	47.0000		50.0000		94	%	67 - 127 RPDLimit = 30	
1,2,3-Trichlorobenzene	51.0000		50.0000		102	%	48 - 123 RPDLimit = 30	
1,2,3-Trichloropropane	42.7000		50.0000		85	%	61 - 129 RPDLimit = 30	
1,2,4-Trichlorobenzene	48.6000		50.0000		97	%	50 - 130 RPDLimit = 30	
1,2,4-Trimethylbenzene	44.3000		50.0000		89	%	64 - 109 RPDLimit = 30	
1,2-Dibromo-3-chloropropane	40.0000		50.0000		80	%	12 - 160 RPDLimit = 30	
1,2-Dibromoethane	45.4000		50.0000		91	%	60 - 132 RPDLimit = 30	
1,2-Dichlorobenzene	40.7000		50.0000		81	%	65 - 129 RPDLimit = 30	
1,2-Dichloroethane	49.6000		50.0000		99	%	74 - 129 RPDLimit = 30	
1,2-Dichloropropane	46.0000		50.0000		92	%	48 - 156 RPDLimit = 30	
1,3,5-Trimethylbenzene	42.6000		50.0000		85	%	60 - 132 RPDLimit = 30	
1,3-Dichlorobenzene	43.2000		50.0000		86	%	64 - 132 RPDLimit = 30	
1,3-Dichloropropane	46.2000		50.0000		92	%	81 - 110 RPDLimit = 30	
1,4-Dichlorobenzene	43.4000		50.0000		87	%	68 - 127 RPDLimit = 30	
1-Chlorohexane	46.8000		50.0000		94	%	11 - 158 RPDLimit = 30	
2,2-Dichloropropane	45.9000		50.0000		92	%	21 - 201 RPDLimit = 30	

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QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		11LCS16A	1	11/16/2009 3:06:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Butanone	97.1000		100.0000		97	%	45 - 165 RPDLimit = 30	
2-Chlorotoluene	44.6000		50.0000		89	%	60 - 130 RPDLimit = 30	
2-Hexanone	95.0000		100.0000		95	%	31 - 203 RPDLimit = 30	
4-Chlorotoluene	43.2000		50.0000		86	%	61 - 117 RPDLimit = 30	
4-Isopropyltoluene	44.2000		50.0000		88	%	62 - 120 RPDLimit = 30	
4-Methyl-2-pentanone	94.9000		100.0000		95	%	30 - 177 RPDLimit = 30	
Acetone	95.9000		100.0000		96	%	35 - 139 RPDLimit = 30	
Allyl chloride	45.1000		50.0000		90	%	45 - 140 RPDLimit = 30	
Benzene	46.9000		50.0000		94	%	70 - 121 RPDLimit = 30	
Bromobenzene	44.6000		50.0000		89	%	57 - 134 RPDLimit = 30	
Bromochloromethane	43.8000		50.0000		88	%	61 - 146 RPDLimit = 30	
Bromodichloromethane	48.5000		50.0000		97	%	60 - 143 RPDLimit = 30	
Bromoform	45.8000		50.0000		92	%	40 - 136 RPDLimit = 30	
Bromomethane	44.1000		50.0000		88	%	48 - 146 RPDLimit = 30	
Carbon disulfide	45.1000		50.0000		90	%	10 - 187 RPDLimit = 30	
Carbon tetrachloride	47.9000		50.0000		96	%	30 - 160 RPDLimit = 30	
Chlorobenzene	44.7000		50.0000		89	%	62 - 132 RPDLimit = 30	
Chloroethane	44.7000		50.0000		89	%	59 - 144 RPDLimit = 30	
Chloroform	46.3000		50.0000		93	%	62 - 152 RPDLimit = 30	
Chloromethane	44.3000		50.0000		89	%	49 - 149 RPDLimit = 30	
cis-1,2-Dichloroethene	44.9000		50.0000		90	%	54 - 146 RPDLimit = 30	
cis-1,3-Dichloropropene	47.9000		50.0000		96	%	60 - 134 RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		11LCS16A	1	11/16/2009 3:06:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Dibromochloromethane	46.3000		50.0000		93	%	48 - 141 RPDLimit = 30	
Dibromomethane	42.6000		50.0000		85	%	58 - 144 RPDLimit = 30	
Dichlorodifluoromethane	48.6000		50.0000		97	%	41 - 154 RPDLimit = 30	
Ethylbenzene	45.8000		50.0000		92	%	66 - 128 RPDLimit = 30	
Hexachlorobutadiene	44.9000		50.0000		90	%	56 - 150 RPDLimit = 30	
Iodomethane	44.6000		50.0000		89	%	27 - 143 RPDLimit = 30	
Isopropylbenzene	43.6000		50.0000		87	%	46 - 144 RPDLimit = 30	
m,p-Xylene	89.3000		100.0000		89	%	47 - 146 RPDLimit = 30	
Methyl tert-butyl ether	44.7000		50.0000		89	%	61 - 140 RPDLimit = 30	
Methylene chloride	46.1000		50.0000		92	%	34 - 183 RPDLimit = 30	
n-Butylbenzene	43.8000		50.0000		88	%	59 - 134 RPDLimit = 30	
n-Propylbenzene	45.0000		50.0000		90	%	57 - 120 RPDLimit = 30	
Naphthalene	47.2000		50.0000		94	%	18 - 144 RPDLimit = 30	
o-Xylene	43.8000		50.0000		88	%	72 - 130 RPDLimit = 30	
sec-Butylbenzene	43.2000		50.0000		86	%	46 - 146 RPDLimit = 30	
Styrene	46.0000		50.0000		92	%	62 - 134 RPDLimit = 30	
tert-Butylbenzene	45.6000		50.0000		91	%	64 - 123 RPDLimit = 30	
Tetrachloroethene	41.3000		50.0000		83	%	47 - 147 RPDLimit = 30	
Toluene	43.5000		50.0000		87	%	70 - 125 RPDLimit = 30	
trans-1,2-Dichloroethene	44.3000		50.0000		89	%	54 - 142 RPDLimit = 30	
trans-1,3-Dichloropropene	48.2000		50.0000		96	%	54 - 134 RPDLimit = 30	
Trichloroethene	46.8000		50.0000		94	%	74 - 123 RPDLimit = 30	

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QUALITY CONTROL RESULTS

WorkOrder: 0911053

Report Date: 12/1/2009

Company: Alamo 1 | PROJECT: LHAAP19-LFCA | ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		11LCS16A	1	11/16/2009 3:06:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Trichlorofluoromethane	44.7000		50.0000		89	%	46 - 167 RPDLimit = 30	
Vinyl chloride	41.5000		50.0000		83	%	54 - 161 RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0911053-05AMSD	1	11/16/2009 10:23:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	45.0000	39.7000	50.0000		90	%	56 - 140	
					RPD = 12.5		RPDLimit = 30	
1,1,1-Trichloroethane	40.6000	46.4000	50.0000		81	%	42 - 177	
					RPD = 13.3		RPDLimit = 30	
1,1,2,2-Tetrachloroethane	42.9000	40.6000	50.0000		86	%	55 - 128	
					RPD = 5.5		RPDLimit = 30	
1,1,2-Trichloroethane	45.7000	45.6000	50.0000		91	%	75 - 121	
					RPD = 0.2		RPDLimit = 30	
1,1-Dichloroethane	39.3000	41.5000	50.0000		79	%	55 - 150	
					RPD = 5.4		RPDLimit = 30	
1,1-Dichloroethene	45.8000	48.8000	50.0000		92	%	59 - 143	
					RPD = 6.3		RPDLimit = 30	
1,1-Dichloropropene	41.0000	42.5000	50.0000		82	%	67 - 127	
					RPD = 3.6		RPDLimit = 30	
1,2,3-Trichlorobenzene	46.6000	44.7000	50.0000		93	%	48 - 123	
					RPD = 4.2		RPDLimit = 30	
1,2,3-Trichloropropane	41.9000	40.4000	50.0000		84	%	61 - 129	
					RPD = 3.6		RPDLimit = 30	
1,2,4-Trichlorobenzene	46.9000	44.4000	50.0000		94	%	50 - 130	
					RPD = 5.5		RPDLimit = 30	
1,2,4-Trimethylbenzene	48.3000	46.8000	50.0000		97	%	64 - 109	
					RPD = 3.2		RPDLimit = 30	
1,2-Dibromo-3-chloropropane	43.7000	44.3000	50.0000		87	%	12 - 160	
					RPD = 1.4		RPDLimit = 30	
1,2-Dibromoethane	47.1000	43.7000	50.0000		94	%	60 - 132	
					RPD = 7.5		RPDLimit = 30	
1,2-Dichlorobenzene	39.9000	42.9000	50.0000		80	%	65 - 129	
					RPD = 7.2		RPDLimit = 30	
1,2-Dichloroethane	48.8000	41.6000	50.0000		98	%	74 - 129	
					RPD = 15.9		RPDLimit = 30	
1,2-Dichloropropane	43.6000	46.5000	50.0000		87	%	48 - 156	
					RPD = 6.4		RPDLimit = 30	
1,3,5-Trimethylbenzene	47.1000	48.2000	50.0000		94	%	60 - 132	
					RPD = 2.3		RPDLimit = 30	
1,3-Dichlorobenzene	47.1000	44.3000	50.0000		94	%	64 - 132	
					RPD = 6.1		RPDLimit = 30	
1,3-Dichloropropane	47.5000	45.6000	50.0000		95	%	81 - 110	
					RPD = 4.1		RPDLimit = 30	
1,4-Dichlorobenzene	48.2000	43.4000	50.0000		96	%	68 - 127	
					RPD = 10.5		RPDLimit = 30	
1-Chlorohexane	43.7000	41.0000	50.0000		87	%	11 - 158	
					RPD = 6.4		RPDLimit = 30	
2,2-Dichloropropane	42.5000	46.8000	50.0000		85	%	21 - 201	
					RPD = 9.6		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0911053-05AMSD	1	11/16/2009 10:23:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Butanone	92.3000	93.5000	100.0000		92	%	45 - 165	
					RPD = 1.3		RPDLimit = 30	
2-Chlorotoluene	48.2000	47.8000	50.0000		96	%	60 - 130	
					RPD = 0.8		RPDLimit = 30	
2-Hexanone	93.2000	96.5000	100.0000		93	%	31 - 203	
					RPD = 3.5		RPDLimit = 30	
4-Chlorotoluene	48.8000	47.2000	50.0000		98	%	61 - 117	
					RPD = 3.3		RPDLimit = 30	
4-Isopropyltoluene	48.1000	48.0000	50.0000		96	%	62 - 120	
					RPD = 0.2		RPDLimit = 30	
4-Methyl-2-pentanone	95.6000	92.9000	100.0000		96	%	30 - 177	
					RPD = 2.9		RPDLimit = 30	
Acetone	95.3000	94.4000	100.0000		95	%	35 - 139	
					RPD = 0.9		RPDLimit = 30	
Allyl chloride	45.1000	39.8000	50.0000		90	%	45 - 140	
					RPD = 12.5		RPDLimit = 30	
Benzene	40.4000	47.4000	50.0000		81	%	70 - 121	
					RPD = 15.9		RPDLimit = 30	
Bromobenzene	48.8000	44.5000	50.0000		98	%	57 - 134	
					RPD = 9.2		RPDLimit = 30	
Bromochloromethane	40.1000	44.6000	50.0000		80	%	61 - 146	
					RPD = 10.6		RPDLimit = 30	
Bromodichloromethane	43.9000	39.8000	50.0000		88	%	60 - 143	
					RPD = 9.8		RPDLimit = 30	
Bromoform	47.8000	45.0000	50.0000		96	%	40 - 136	
					RPD = 6.0		RPDLimit = 30	
Bromomethane	39.6000	41.1000	50.0000		79	%	48 - 146	
					RPD = 3.7		RPDLimit = 30	
Carbon disulfide	45.1000	39.8000	50.0000		90	%	10 - 187	
					RPD = 12.5		RPDLimit = 30	
Carbon tetrachloride	43.0000	46.7000	50.0000		86	%	30 - 160	
					RPD = 8.2		RPDLimit = 30	
Chlorobenzene	42.0000	47.0000	50.0000		84	%	62 - 132	
					RPD = 11.2		RPDLimit = 30	
Chloroethane	41.5000	40.9000	50.0000		83	%	59 - 144	
					RPD = 1.5		RPDLimit = 30	
Chloroform	39.7000	40.4000	50.0000		79	%	62 - 152	
					RPD = 1.7		RPDLimit = 30	
Chloromethane	47.8000	40.7000	50.0000		96	%	49 - 149	
					RPD = 16.0		RPDLimit = 30	
cis-1,2-Dichloroethene	47.5000	48.2000	50.0000		95	%	54 - 146	
					RPD = 1.5		RPDLimit = 30	
cis-1,3-Dichloropropene	43.7000	46.4000	50.0000		87	%	60 - 134	
					RPD = 6.0		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0911053-05AMSD	1	11/16/2009 10:23:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Dibromochloromethane	46.2000	46.8000	50.0000		92	%	48 - 141	
					RPD = 1.3		RPDLimit = 30	
Dibromomethane	44.5000	41.8000	50.0000		89	%	58 - 144	
					RPD = 6.3		RPDLimit = 30	
Dichlorodifluoromethane	44.7000	43.0000	50.0000		89	%	41 - 154	
					RPD = 3.9		RPDLimit = 30	
Ethylbenzene	42.5000	41.2000	50.0000		85	%	66 - 128	
					RPD = 3.1		RPDLimit = 30	
Hexachlorobutadiene	46.2000	48.5000	50.0000		92	%	56 - 150	
					RPD = 4.9		RPDLimit = 30	
Iodomethane	47.5000	47.0000	50.0000		95	%	27 - 143	
					RPD = 1.1		RPDLimit = 30	
Isopropylbenzene	45.6000	47.7000	50.0000		91	%	46 - 144	
					RPD = 4.5		RPDLimit = 30	
m,p-Xylene	85.8000	87.0000	100.0000		86	%	47 - 146	
					RPD = 1.4		RPDLimit = 30	
Methyl tert-butyl ether	47.3000	45.6000	50.0000		95	%	61 - 140	
					RPD = 3.7		RPDLimit = 30	
Methylene chloride	40.5000	40.6000	50.0000		81	%	34 - 183	
					RPD = 0.2		RPDLimit = 30	
n-Butylbenzene	48.4000	47.6000	50.0000	1.3800	94	%	59 - 134	
					RPD = 1.7		RPDLimit = 30	
n-Propylbenzene	47.5000	48.4000	50.0000		95	%	57 - 120	
					RPD = 1.9		RPDLimit = 30	
Naphthalene	43.2000	39.8000	50.0000	7.6300	71	%	18 - 144	
					RPD = 8.2		RPDLimit = 30	
o-Xylene	44.5000	39.1000	50.0000		89	%	72 - 130	
					RPD = 12.9		RPDLimit = 30	
sec-Butylbenzene	47.9000	48.5000	50.0000		96	%	46 - 146	
					RPD = 1.2		RPDLimit = 30	
Styrene	44.2000	48.3000	50.0000		88	%	62 - 134	
					RPD = 8.9		RPDLimit = 30	
tert-Butylbenzene	48.0000	39.3000	50.0000		96	%	64 - 123	
					RPD = 19.9		RPDLimit = 30	
Tetrachloroethene	48.5000	41.9000	50.0000		97	%	47 - 147	
					RPD = 14.6		RPDLimit = 30	
Toluene	44.9000	46.7000	50.0000		90	%	70 - 125	
					RPD = 3.9		RPDLimit = 30	
trans-1,2-Dichloroethene	46.0000	48.3000	50.0000		92	%	54 - 142	
					RPD = 4.9		RPDLimit = 30	
trans-1,3-Dichloropropene	46.4000	48.3000	50.0000		93	%	54 - 134	
					RPD = 4.0		RPDLimit = 30	
Trichloroethene	40.7000	39.5000	50.0000		81	%	74 - 123	
					RPD = 3.0		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053

Report Date: 12/1/2009

Company: Alamo 1 | PROJECT: LHAAP19-LFCA | ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0911053-05AMSD	1	11/16/2009 10:23:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Trichlorofluoromethane	44.8000	47.7000	50.0000		90	%	46 - 167	
					RPD = 6.3		RPDLimit = 30	
Vinyl chloride	48.5000	39.7000	50.0000		97	%	54 - 161	
					RPD = 20.0		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0911053-05AMS	1	11/16/2009 9:39:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	39.7000		50.0000		79	%	56 - 140 RPDLimit = 30	
1,1,1-Trichloroethane	46.4000		50.0000		93	%	42 - 177 RPDLimit = 30	
1,1,2,2-Tetrachloroethane	40.6000		50.0000		81	%	55 - 128 RPDLimit = 30	
1,1,2-Trichloroethane	45.6000		50.0000		91	%	75 - 121 RPDLimit = 30	
1,1-Dichloroethane	41.5000		50.0000		83	%	55 - 150 RPDLimit = 30	
1,1-Dichloroethene	48.8000		50.0000		98	%	59 - 143 RPDLimit = 30	
1,1-Dichloropropene	42.5000		50.0000		85	%	67 - 127 RPDLimit = 30	
1,2,3-Trichlorobenzene	44.7000		50.0000		89	%	48 - 123 RPDLimit = 30	
1,2,3-Trichloropropane	40.4000		50.0000		81	%	61 - 129 RPDLimit = 30	
1,2,4-Trichlorobenzene	44.4000		50.0000		89	%	50 - 130 RPDLimit = 30	
1,2,4-Trimethylbenzene	46.8000		50.0000		94	%	64 - 109 RPDLimit = 30	
1,2-Dibromo-3-chloropropane	44.3000		50.0000		89	%	12 - 160 RPDLimit = 30	
1,2-Dibromoethane	43.7000		50.0000		87	%	60 - 132 RPDLimit = 30	
1,2-Dichlorobenzene	42.9000		50.0000		86	%	65 - 129 RPDLimit = 30	
1,2-Dichloroethane	41.6000		50.0000		83	%	74 - 129 RPDLimit = 30	
1,2-Dichloropropane	46.5000		50.0000		93	%	48 - 156 RPDLimit = 30	
1,3,5-Trimethylbenzene	48.2000		50.0000		96	%	60 - 132 RPDLimit = 30	
1,3-Dichlorobenzene	44.3000		50.0000		89	%	64 - 132 RPDLimit = 30	
1,3-Dichloropropane	45.6000		50.0000		91	%	81 - 110 RPDLimit = 30	
1,4-Dichlorobenzene	43.4000		50.0000		87	%	68 - 127 RPDLimit = 30	
1-Chlorohexane	41.0000		50.0000		82	%	11 - 158 RPDLimit = 30	
2,2-Dichloropropane	46.8000		50.0000		94	%	21 - 201 RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0911053-05AMS	1	11/16/2009 9:39:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Butanone	93.5000		100.0000		94	%	45 - 165 RPDLimit = 30	
2-Chlorotoluene	47.8000		50.0000		96	%	60 - 130 RPDLimit = 30	
2-Hexanone	96.5000		100.0000		97	%	31 - 203 RPDLimit = 30	
4-Chlorotoluene	47.2000		50.0000		94	%	61 - 117 RPDLimit = 30	
4-Isopropyltoluene	48.0000		50.0000		96	%	62 - 120 RPDLimit = 30	
4-Methyl-2-pentanone	92.9000		100.0000		93	%	30 - 177 RPDLimit = 30	
Acetone	94.4000		100.0000		94	%	35 - 139 RPDLimit = 30	
Allyl chloride	39.8000		50.0000		80	%	45 - 140 RPDLimit = 30	
Benzene	47.4000		50.0000		95	%	70 - 121 RPDLimit = 30	
Bromobenzene	44.5000		50.0000		89	%	57 - 134 RPDLimit = 30	
Bromochloromethane	44.6000		50.0000		89	%	61 - 146 RPDLimit = 30	
Bromodichloromethane	39.8000		50.0000		80	%	60 - 143 RPDLimit = 30	
Bromoform	45.0000		50.0000		90	%	40 - 136 RPDLimit = 30	
Bromomethane	41.1000		50.0000		82	%	48 - 146 RPDLimit = 30	
Carbon disulfide	39.8000		50.0000		80	%	10 - 187 RPDLimit = 30	
Carbon tetrachloride	46.7000		50.0000		93	%	30 - 160 RPDLimit = 30	
Chlorobenzene	47.0000		50.0000		94	%	62 - 132 RPDLimit = 30	
Chloroethane	40.9000		50.0000		82	%	59 - 144 RPDLimit = 30	
Chloroform	40.4000		50.0000		81	%	62 - 152 RPDLimit = 30	
Chloromethane	40.7000		50.0000		81	%	49 - 149 RPDLimit = 30	
cis-1,2-Dichloroethene	48.2000		50.0000		96	%	54 - 146 RPDLimit = 30	
cis-1,3-Dichloropropene	46.4000		50.0000		93	%	60 - 134 RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0911053-05AMS	1	11/16/2009 9:39:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Dibromochloromethane	46.8000		50.0000		94	%	48 - 141 RPDLimit = 30	
Dibromomethane	41.8000		50.0000		84	%	58 - 144 RPDLimit = 30	
Dichlorodifluoromethane	43.0000		50.0000		86	%	41 - 154 RPDLimit = 30	
Ethylbenzene	41.2000		50.0000		82	%	66 - 128 RPDLimit = 30	
Hexachlorobutadiene	48.5000		50.0000		97	%	56 - 150 RPDLimit = 30	
Iodomethane	47.0000		50.0000		94	%	27 - 143 RPDLimit = 30	
Isopropylbenzene	47.7000		50.0000		95	%	46 - 144 RPDLimit = 30	
m,p-Xylene	87.0000		100.0000		87	%	47 - 146 RPDLimit = 30	
Methyl tert-butyl ether	45.6000		50.0000		91	%	61 - 140 RPDLimit = 30	
Methylene chloride	40.6000		50.0000		81	%	34 - 183 RPDLimit = 30	
n-Butylbenzene	47.6000		50.0000	1.3800	92	%	59 - 134 RPDLimit = 30	
n-Propylbenzene	48.4000		50.0000		97	%	57 - 120 RPDLimit = 30	
Naphthalene	39.8000		50.0000	7.6300	64	%	18 - 144 RPDLimit = 30	
o-Xylene	39.1000		50.0000		78	%	72 - 130 RPDLimit = 30	
sec-Butylbenzene	48.5000		50.0000		97	%	46 - 146 RPDLimit = 30	
Styrene	48.3000		50.0000		97	%	62 - 134 RPDLimit = 30	
tert-Butylbenzene	39.3000		50.0000		79	%	64 - 123 RPDLimit = 30	
Tetrachloroethene	41.9000		50.0000		84	%	47 - 147 RPDLimit = 30	
Toluene	46.7000		50.0000		93	%	70 - 125 RPDLimit = 30	
trans-1,2-Dichloroethene	48.3000		50.0000		97	%	54 - 142 RPDLimit = 30	
trans-1,3-Dichloropropene	48.3000		50.0000		97	%	54 - 134 RPDLimit = 30	
Trichloroethene	39.5000		50.0000		79	%	74 - 123 RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053

Report Date: 12/1/2009

Company: Alamo 1 | PROJECT: LHAAP19-LFCA | ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091116A **RunID:** VOC1_091116A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0911053-05AMS	1	11/16/2009 9:39:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Trichlorofluoromethane	47.7000		50.0000		95	%	46 - 167 RPDLimit = 30	
Vinyl chloride	39.7000		50.0000		79	%	54 - 161 RPDLimit = 30	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091118A **RunID:** VOC1_091118A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	11BLK18A	1	11/18/2009 5:16:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	< 1.2300						-	
1,1,1-Trichloroethane	< 2.3100						-	
1,1,2,2-Tetrachloroethane	< .8740						-	
1,1,2-Trichloroethane	< 1.5600						-	
1,1-Dichloroethane	< 1.0400						-	
1,1-Dichloroethene	< 1.1000						-	
1,1-Dichloropropene	< .4500						-	
1,2,3-Trichlorobenzene	< 1.0900						-	
1,2,3-Trichloropropane	< .0550						-	
1,2,4-Trichlorobenzene	< .7640						-	
1,2,4-Trimethylbenzene	< 1.0300						-	
1,2-Dibromo-3-chloropropane	< .0650						-	
1,2-Dibromoethane	< .0420						-	
1,2-Dichlorobenzene	< .7980						-	
1,2-Dichloroethane	< .9830						-	
1,2-Dichloropropane	< .6260						-	
1,3,5-Trimethylbenzene	< .9260						-	
1,3-Dichlorobenzene	< 1.3200						-	
1,3-Dichloropropane	< .5970						-	
1,4-Dichlorobenzene	< 1.0900						-	
2,2-Dichloropropane	< 1.3200						-	
2-Butanone	< 5.6300						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091118A **RunID:** VOC1_091118A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	11BLK18A	1	11/18/2009 5:16:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Chlorotoluene	< .9890						-	
2-Hexanone	< 2.0500						-	
4-Chlorotoluene	< .9700						-	
4-Isopropyltoluene	< 1.3100						-	
4-Methyl-2-pentanone	< 1.4700						-	
Acetone	< 4.1100						-	
Allyl chloride	< 1.2400						-	
Benzene	< .6820						-	
Bromobenzene	< .5510						-	
Bromochloromethane	< .8440						-	
Bromodichloromethane	< .9910						-	
Bromoform	< .7740						-	
Bromomethane	< .9830						-	
Carbon disulfide	< 1.2500						-	
Carbon tetrachloride	< 1.7200						-	
Chlorobenzene	< .5300						-	
Chloroethane	< 1.6600						-	
Chloroform	< 1.4500						-	
Chloromethane	< .8100						-	
cis-1,2-Dichloroethene	< 1.8000						-	
cis-1,3-Dichloropropene	< 1.2900						-	
Dibromochloromethane	< 1.2900						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091118A **RunID:** VOC1_091118A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	11BLK18A	1	11/18/2009 5:16:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Dibromomethane	< 2.3000						-	
Dichlorodifluoromethane	< 3.8000						-	
Ethylbenzene	< .9500						-	
Hexachlorobutadiene	< 1.2400						-	
Iodomethane	< 1.2300						-	
Isopropylbenzene	< 2.0800						-	
m,p-Xylene	< 2.0300						-	
Methyl tert-butyl ether	< 2.0100						-	
Methylene chloride	< 1.3200						-	
n-Butylbenzene	< 1.3200						-	
n-Propylbenzene	< .9330						-	
Naphthalene	< 2.4200						-	
o-Xylene	< .7260						-	
sec-Butylbenzene	< .8820						-	
Styrene	< .5130						-	
tert-Butylbenzene	< 1.2800						-	
Tetrachloroethene	< 1.5300						-	
Toluene	< .7250						-	
trans-1,2-Dichloroethene	< 1.5800						-	
trans-1,3-Dichloropropene	< 1.3100						-	
Trichloroethene	< 1.3900						-	
Trichlorofluoromethane	< 1.3700						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091118A **RunID:** VOC1_091118A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	11BLK18A	1	11/18/2009 5:16:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Vinyl chloride	< .9310						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091118A **RunID:** VOC1_091118A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		11LCS18A	1	11/18/2009 6:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	48.8000		50.0000		98	%	70 - 130	
1,1,1-Trichloroethane	52.6000		50.0000		105	%	67 - 132	
1,1,2,2-Tetrachloroethane	44.2000		50.0000		88	%	63 - 128	
1,1,2-Trichloroethane	49.7000		50.0000		99	%	70 - 130	
1,1-Dichloroethane	51.4000		50.0000		103	%	69 - 133	
1,1-Dichloroethene	47.0000		50.0000		94	%	64 - 144	
1,1-Dichloropropene	48.7000		50.0000		97	%	70 - 130	
1,2,3-Trichlorobenzene	49.2000		50.0000		98	%	67 - 137	
1,2,3-Trichloropropane	45.2000		50.0000		90	%	70 - 130	
1,2,4-Trichlorobenzene	51.1000		50.0000		102	%	66 - 134	
1,2,4-Trimethylbenzene	44.0000		50.0000		88	%	70 - 130	
1,2-Dibromo-3-chloropropane	47.8000		50.0000		96	%	50 - 132	
1,2-Dibromoethane	47.4000		50.0000		95	%	70 - 130	
1,2-Dichlorobenzene	45.1000		50.0000		90	%	70 - 130	
1,2-Dichloroethane	53.5000		50.0000		107	%	69 - 132	
1,2-Dichloropropane	47.9000		50.0000		96	%	70 - 130	
1,3,5-Trimethylbenzene	45.4000		50.0000		91	%	70 - 130	
1,3-Dichlorobenzene	45.6000		50.0000		91	%	75 - 124	
1,3-Dichloropropane	48.3000		50.0000		97	%	70 - 126	
1,4-Dichlorobenzene	46.3000		50.0000		93	%	74 - 123	
2,2-Dichloropropane	53.7000		50.0000		107	%	69 - 137	
2-Butanone	92.4000		100.0000		92	%	49 - 136	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091118A **RunID:** VOC1_091118A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		11LCS18A	1	11/18/2009 6:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Chlorotoluene	47.8000		50.0000		96	%	73 - 126	
2-Hexanone	98.9000		100.0000		99	%	58 - 134	
4-Chlorotoluene	47.3000		50.0000		95	%	70 - 130	
4-Isopropyltoluene	45.8000		50.0000		92	%	73 - 130	
4-Methyl-2-pentanone	94.0000		100.0000		94	%	58 - 134	
Acetone	98.7000		100.0000		99	%	40 - 135	
Allyl chloride	48.7000		50.0000		97	%	60 - 140	
Benzene	46.4000		50.0000		93	%	66 - 129	
Bromobenzene	45.8000		50.0000		92	%	70 - 130	
Bromochloromethane	49.4000		50.0000		99	%	65 - 129	
Bromodichloromethane	50.9000		50.0000		102	%	70 - 130	
Bromoform	49.2000		50.0000		98	%	69 - 128	
Bromomethane	51.5000		50.0000		103	%	53 - 141	
Carbon disulfide	48.7000		50.0000		97	%	55 - 145	
Carbon tetrachloride	50.8000		50.0000		102	%	66 - 138	
Chlorobenzene	47.7000		50.0000		95	%	68 - 127	
Chloroethane	51.4000		50.0000		103	%	58 - 133	
Chloroform	53.4000		50.0000		107	%	69 - 128	
Chloromethane	51.6000		50.0000		103	%	56 - 131	
cis-1,2-Dichloroethene	49.3000		50.0000		99	%	72 - 126	
cis-1,3-Dichloropropene	48.3000		50.0000		97	%	69 - 131	
Dibromochloromethane	48.9000		50.0000		98	%	66 - 133	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091118A **RunID:** VOC1_091118A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		11LCS18A	1	11/18/2009 6:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Dibromomethane	43.8000		50.0000		88	%	70 - 130	
Dichlorodifluoromethane	50.2000		50.0000		100	%	53 - 153	
Ethylbenzene	48.6000		50.0000		97	%	73 - 127	
Hexachlorobutadiene	48.3000		50.0000		97	%	67 - 131	
Iodomethane	48.9000		50.0000		98	%	52 - 147	
Isopropylbenzene	44.8000		50.0000		90	%	70 - 130	
m,p-Xylene	93.8000		100.0000		94	%	70 - 130	
Methyl tert-butyl ether	51.5000		50.0000		103	%	61 - 140	
Methylene chloride	53.6000		50.0000		107	%	63 - 137	
n-Butylbenzene	46.3000		50.0000		93	%	69 - 137	
n-Propylbenzene	45.9000		50.0000		92	%	70 - 130	
Naphthalene	45.8000		50.0000		92	%	54 - 138	
o-Xylene	46.6000		50.0000		93	%	70 - 130	
sec-Butylbenzene	46.4000		50.0000		93	%	70 - 130	
Styrene	48.5000		50.0000		97	%	65 - 134	
tert-Butylbenzene	46.2000		50.0000		92	%	70 - 129	
Tetrachloroethene	44.9000		50.0000		90	%	66 - 128	
Toluene	45.6000		50.0000		91	%	74 - 124	
trans-1,2-Dichloroethene	48.3000		50.0000		97	%	63 - 137	
trans-1,3-Dichloropropene	51.4000		50.0000		103	%	59 - 135	
Trichloroethene	48.0000		50.0000		96	%	70 - 127	
Trichlorofluoromethane	53.2000		50.0000		106	%	57 - 129	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053

Report Date: 12/1/2009

Company: Alamo 1 | PROJECT: LHAAP19-LFCA | ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091118A **RunID:** VOC1_091118A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		11LCS18A	1	11/18/2009 6:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Vinyl chloride	48.8000		50.0000		98	%	50 - 134	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091118A **RunID:** VOC1_091118A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFBD		11LCSD18A	1	11/18/2009 6:43:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	50.0000	48.8000	50.0000		100	%	70 - 130	
					RPD = 2.4		RPDLimit = 20	
1,1,1-Trichloroethane	51.7000	52.6000	50.0000		103	%	67 - 132	
					RPD = 1.7		RPDLimit = 20	
1,1,2,2-Tetrachloroethane	44.8000	44.2000	50.0000		90	%	63 - 128	
					RPD = 1.3		RPDLimit = 20	
1,1,2-Trichloroethane	50.1000	49.7000	50.0000		100	%	70 - 130	
					RPD = 0.8		RPDLimit = 20	
1,1-Dichloroethane	50.8000	51.4000	50.0000		102	%	69 - 133	
					RPD = 1.2		RPDLimit = 20	
1,1-Dichloroethene	48.3000	47.0000	50.0000		97	%	64 - 144	
					RPD = 2.7		RPDLimit = 20	
1,1-Dichloropropene	48.6000	48.7000	50.0000		97	%	70 - 130	
					RPD = 0.2		RPDLimit = 20	
1,2,3-Trichlorobenzene	49.7000	49.2000	50.0000		99	%	67 - 137	
					RPD = 1.0		RPDLimit = 20	
1,2,3-Trichloropropane	44.6000	45.2000	50.0000		89	%	70 - 130	
					RPD = 1.3		RPDLimit = 20	
1,2,4-Trichlorobenzene	50.9000	51.1000	50.0000		102	%	66 - 134	
					RPD = 0.4		RPDLimit = 20	
1,2,4-Trimethylbenzene	44.7000	44.0000	50.0000		89	%	70 - 130	
					RPD = 1.6		RPDLimit = 20	
1,2-Dibromo-3-chloropropane	40.3000	47.8000	50.0000		81	%	50 - 132	
					RPD = 17.0		RPDLimit = 20	
1,2-Dibromoethane	50.4000	47.4000	50.0000		101	%	70 - 130	
					RPD = 6.1		RPDLimit = 20	
1,2-Dichlorobenzene	44.8000	45.1000	50.0000		90	%	70 - 130	
					RPD = 0.7		RPDLimit = 20	
1,2-Dichloroethane	52.0000	53.5000	50.0000		104	%	69 - 132	
					RPD = 2.8		RPDLimit = 20	
1,2-Dichloropropane	48.7000	47.9000	50.0000		97	%	70 - 130	
					RPD = 1.7		RPDLimit = 20	
1,3,5-Trimethylbenzene	43.9000	45.4000	50.0000		88	%	70 - 130	
					RPD = 3.4		RPDLimit = 20	
1,3-Dichlorobenzene	44.0000	45.6000	50.0000		88	%	75 - 124	
					RPD = 3.6		RPDLimit = 20	
1,3-Dichloropropane	48.5000	48.3000	50.0000		97	%	70 - 126	
					RPD = 0.4		RPDLimit = 20	
1,4-Dichlorobenzene	45.4000	46.3000	50.0000		91	%	74 - 123	
					RPD = 2.0		RPDLimit = 20	
2,2-Dichloropropane	52.4000	53.7000	50.0000		105	%	69 - 137	
					RPD = 2.5		RPDLimit = 20	
2-Butanone	93.2000	92.4000	100.0000		93	%	49 - 136	
					RPD = 0.9		RPDLimit = 20	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091118A **RunID:** VOC1_091118A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFBD		11LCSD18A	1	11/18/2009 6:43:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Chlorotoluene	45.0000	47.8000	50.0000		90	%	73 - 126	
					RPD = 6.0		RPDLimit = 20	
2-Hexanone	97.7000	98.9000	100.0000		98	%	58 - 134	
					RPD = 1.2		RPDLimit = 20	
4-Chlorotoluene	45.1000	47.3000	50.0000		90	%	70 - 130	
					RPD = 4.8		RPDLimit = 20	
4-Isopropyltoluene	44.2000	45.8000	50.0000		88	%	73 - 130	
					RPD = 3.6		RPDLimit = 20	
4-Methyl-2-pentanone	90.7000	94.0000	100.0000		91	%	58 - 134	
					RPD = 3.6		RPDLimit = 20	
Acetone	93.0000	98.7000	100.0000		93	%	40 - 135	
					RPD = 5.9		RPDLimit = 20	
Allyl chloride	48.8000	48.7000	50.0000		98	%	60 - 140	
					RPD = 0.2		RPDLimit = 20	
Benzene	46.7000	46.4000	50.0000		93	%	66 - 129	
					RPD = 0.6		RPDLimit = 20	
Bromobenzene	44.9000	45.8000	50.0000		90	%	70 - 130	
					RPD = 2.0		RPDLimit = 20	
Bromochloromethane	49.4000	49.4000	50.0000		99	%	65 - 129	
					RPD = 0.0		RPDLimit = 20	
Bromodichloromethane	49.6000	50.9000	50.0000		99	%	70 - 130	
					RPD = 2.6		RPDLimit = 20	
Bromoform	50.2000	49.2000	50.0000		100	%	69 - 128	
					RPD = 2.0		RPDLimit = 20	
Bromomethane	50.1000	51.5000	50.0000		100	%	53 - 141	
					RPD = 2.8		RPDLimit = 20	
Carbon disulfide	48.8000	48.7000	50.0000		98	%	55 - 145	
					RPD = 0.2		RPDLimit = 20	
Carbon tetrachloride	50.4000	50.8000	50.0000		101	%	66 - 138	
					RPD = 0.8		RPDLimit = 20	
Chlorobenzene	47.2000	47.7000	50.0000		94	%	68 - 127	
					RPD = 1.1		RPDLimit = 20	
Chloroethane	51.9000	51.4000	50.0000		104	%	58 - 133	
					RPD = 1.0		RPDLimit = 20	
Chloroform	52.3000	53.4000	50.0000		105	%	69 - 128	
					RPD = 2.1		RPDLimit = 20	
Chloromethane	51.7000	51.6000	50.0000		103	%	56 - 131	
					RPD = 0.2		RPDLimit = 20	
cis-1,2-Dichloroethene	50.2000	49.3000	50.0000		100	%	72 - 126	
					RPD = 1.8		RPDLimit = 20	
cis-1,3-Dichloropropene	49.6000	48.3000	50.0000		99	%	69 - 131	
					RPD = 2.7		RPDLimit = 20	
Dibromochloromethane	49.3000	48.9000	50.0000		99	%	66 - 133	
					RPD = 0.8		RPDLimit = 20	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091118A **RunID:** VOC1_091118A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFBD		11LCSD18A	1	11/18/2009 6:43:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Dibromomethane	44.6000	43.8000	50.0000		89	%	70 - 130	
					RPD = 1.8		RPDLimit = 20	
Dichlorodifluoromethane	49.6000	50.2000	50.0000		99	%	53 - 153	
					RPD = 1.2		RPDLimit = 20	
Ethylbenzene	48.8000	48.6000	50.0000		98	%	73 - 127	
					RPD = 0.4		RPDLimit = 20	
Hexachlorobutadiene	46.5000	48.3000	50.0000		93	%	67 - 131	
					RPD = 3.8		RPDLimit = 20	
Iodomethane	48.2000	48.9000	50.0000		96	%	52 - 147	
					RPD = 1.4		RPDLimit = 20	
Isopropylbenzene	43.5000	44.8000	50.0000		87	%	70 - 130	
					RPD = 2.9		RPDLimit = 20	
m,p-Xylene	94.2000	93.8000	100.0000		94	%	70 - 130	
					RPD = 0.4		RPDLimit = 20	
Methyl tert-butyl ether	51.1000	51.5000	50.0000		102	%	61 - 140	
					RPD = 0.8		RPDLimit = 20	
Methylene chloride	53.3000	53.6000	50.0000		107	%	63 - 137	
					RPD = 0.6		RPDLimit = 20	
n-Butylbenzene	45.5000	46.3000	50.0000		91	%	69 - 137	
					RPD = 1.7		RPDLimit = 20	
n-Propylbenzene	44.7000	45.9000	50.0000		89	%	70 - 130	
					RPD = 2.6		RPDLimit = 20	
Naphthalene	50.7000	45.8000	50.0000		101	%	54 - 138	
					RPD = 10.2		RPDLimit = 20	
o-Xylene	46.9000	46.6000	50.0000		94	%	70 - 130	
					RPD = 0.6		RPDLimit = 20	
sec-Butylbenzene	43.8000	46.4000	50.0000		88	%	70 - 130	
					RPD = 5.8		RPDLimit = 20	
Styrene	48.2000	48.5000	50.0000		96	%	65 - 134	
					RPD = 0.6		RPDLimit = 20	
tert-Butylbenzene	43.6000	46.2000	50.0000		87	%	70 - 129	
					RPD = 5.8		RPDLimit = 20	
Tetrachloroethene	44.0000	44.9000	50.0000		88	%	66 - 128	
					RPD = 2.0		RPDLimit = 20	
Toluene	44.9000	45.6000	50.0000		90	%	74 - 124	
					RPD = 1.5		RPDLimit = 20	
trans-1,2-Dichloroethene	48.7000	48.3000	50.0000		97	%	63 - 137	
					RPD = 0.8		RPDLimit = 20	
trans-1,3-Dichloropropene	51.5000	51.4000	50.0000		103	%	59 - 135	
					RPD = 0.2		RPDLimit = 20	
Trichloroethene	47.1000	48.0000	50.0000		94	%	70 - 127	
					RPD = 1.9		RPDLimit = 20	
Trichlorofluoromethane	51.3000	53.2000	50.0000		103	%	57 - 129	
					RPD = 3.6		RPDLimit = 20	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053 Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_091118A **RunID:** VOC1_091118A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFBD		11LCSD18A	1	11/18/2009 6:43:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Vinyl chloride	48.5000	48.8000	50.0000		97	%	50 - 134	
					RPD = 0.6		RPDLimit = 20	

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatiles by SIM method So **Batch.....:** VOC1_091121A **RunID:** VOC1_091121A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	11BLK21A	1	11/21/2009 12:41:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1-Dichloropropene	< .5150						-	
1,2-Dibromo-3-chloropropane	< .0744						-	
cis-1,3-Dichloropropene	< .4810						-	
1,2-Dibromoethane	< .0481						-	
1,2,3-Trichloropropane	< .0629						-	

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatiles by SIM method So **Batch.....:** VOC1_091121A **RunID:** VOC1_091121A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	11LCS21A	1	11/21/2009 1:24:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1-Dichloropropene	2.7100		2.5000		108	%	70 - 130	
1,2-Dibromo-3-chloropropane	2.1000		2.5000		84	%	70 - 130	
cis-1,3-Dichloropropene	2.2700		2.5000		91	%	70 - 130	
1,2-Dibromoethane	2.2900		2.5000		92	%	70 - 130	
1,2,3-Trichloropropane	2.6800		2.5000		107	%	70 - 130	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0911053

Report Date: 12/1/2009

Company: Alamo 1 | PROJECT: LHAAP19-LFCA | ATTN: Greg Osuna

Test Method.....: SW8260B **Units.....:** ug/Kg **Analyst...:** VKG

Method Description..: Volatiles by SIM method So **Batch.....:** VOC1_091121A **RunID:** VOC1_091121A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0911053-02AMS	1	11/21/2009 2:41:00 AM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1-Dichloropropene	2.6000		2.5000		104	%	70 - 130	
1,2-Dibromo-3-chloropropane	2.6600		2.5000		106	%	70 - 130	
cis-1,3-Dichloropropene	2.6900		2.5000		108	%	70 - 130	
1,2-Dibromoethane	2.3100		2.5000		92	%	70 - 130	
1,2,3-Trichloropropane	2.3800		2.5000		95	%	70 - 130	

Alamo Analytical Laboratories, LTD

SURROGATE RECOVERIES REPORT

WorkOrder: 0911053

Report Date: 12/1/2009

Company: Alamo 1 | PROJECT: LHAAP19-LFCA | ATTN: Greg Osuna

Method Volatile Organics by GC/MS *Method Code* SW 8260B

BatchID VOC1_091116A *Test Matrix* Soil

SampType	SampID	AnalDate	12Dd4	Td8	DBFM	BFB
MBLK	11BLK16A	11/16/2009	86.20	96.20	99.60	102.80
LFB	11LCS16A	11/16/2009	96.80	105.80	102.20	112.40
SAMP	0911052-03A	11/16/2009	92.02	99.63	100.37	102.04
SAMP	0911052-04A	11/16/2009	96.52	98.26	104.00	99.83
SAMP	0911052-05A	11/16/2009	101.85	96.47	106.39	108.24
SAMP	0911053-02A	11/16/2009	94.68	99.67	102.16	100.83
SAMP	0911053-03A	11/16/2009	91.00	83.73	92.42	84.04
SAMP	0911053-04A	11/16/2009	103.58	100.51	104.27	102.22
SAMP	0911053-05A	11/16/2009	104.92	97.72	106.85	101.76
SAMP	0911053-06A	11/16/2009	101.80	88.47	99.10	111.17
SAMP	0911053-07A	11/16/2009	98.60	95.63	107.69	98.25
MSDF	0911053-05A	11/16/2009	95.20	79.20	108.80	108.60
MS_F	0911053-05A	11/16/2009	114.80	102.00	111.20	112.20

Test	Test Description	Limits
12Dd4	1,2-Dichloroethane-d4	60-133
Td8	Toluene-d8	67-128
4BFB	4-Bromofluorobenzene	70-125
DBFM	Dibromofluoromethane	70-122

For Surrogates: 0 = Dil.Out

Alamo Analytical Laboratories, LTD

SURROGATE RECOVERIES REPORT

WorkOrder: 0911053

Report Date: 12/1/2009

Company: Alamo 1 | PROJECT: LHAAP19-LFCA | ATTN: Greg Osuna

Method Volatile Organics by GC/MS *Method Code* SW 8260B

BatchID VOC1_091118A *Test Matrix* Water

SampType	SampID	AnalDate	12Dd4	Td8	DBFM	BFB
MBLK	11BLK18A	11/18/2009	92.20	99.00	102.20	96.60
LFB	11LCS18A	11/18/2009	102.80	101.20	107.20	112.00
LFBD	11LCSD18A	11/18/2009	101.20	100.20	106.40	106.40
SAMP	0911047-06A	11/18/2009	93.20	100.20	100.00	100.20
SAMP	0911052-06A	11/18/2009	93.80	96.60	101.60	102.20
SAMP	0911053-01A	11/18/2009	95.20	97.80	103.00	97.40
SAMP	0911059-07A	11/18/2009	103.00	99.20	108.40	98.20
SAMP	0911072-05A	11/18/2009	100.60	96.40	105.40	100.40
SAMP	0911083-04A	11/18/2009	104.60	101.60	105.80	102.20

Test	Test Description	Limits
12Dd4	1,2-Dichloroethane-d4	60-133
Td8	Toluene-d8	67-128
4BFB	4-Bromofluorobenzene	70-125
DBFM	Dibromofluoromethane	70-122

For Surrogates: 0 = Dil.Out

Alamo Analytical Laboratories, LTD

SURROGATE RECOVERIES REPORT

WorkOrder: 0911053

Report Date: 12/1/2009

Company: Alamo 1 | PROJECT: LHAAP19-LFCA | ATTN: Greg Osuna

Method Volatiles by SIM method Soil | *Method Code* SW 8260B

BatchID VOC1_091121A | *Test Matrix* Soil

SampType	SampID	AnalDate	12Dd4	Td8	DBFM	BFB
MBLK	11BLK21A	11/21/2009	84.20	95.20	77.20	103.40
LCS	11LCS21A	11/21/2009	87.60	94.40	77.80	96.00
SAMP	0911053-02A	11/21/2009	83.86	108.32	77.37	98.67
SAMP	0911053-03A	11/21/2009	90.76	106.65	79.85	97.60
SAMP	0911053-04A	11/21/2009	98.81	97.10	81.57	99.66
SAMP	0911053-05A	11/21/2009	89.81	109.67	79.79	104.92
SAMP	0911053-06A	11/21/2009	94.77	105.59	80.54	100.36
SAMP	0911053-07A	11/21/2009	88.81	94.06	78.85	101.22
MS	0911053-02A	11/21/2009	86.40	91.00	77.60	101.40
SAMP	0911059-01A	11/21/2009	96.60	106.40	81.00	98.40
SAMP	0911059-02A	11/21/2009	96.80	108.00	80.60	99.60
SAMP	0911059-03A	11/21/2009	94.80	107.60	81.60	103.00
SAMP	0911059-04A	11/21/2009	97.20	107.40	81.40	100.80
SAMP	0911059-05A	11/21/2009	102.00	107.80	82.80	101.40
SAMP	0911059-06A	11/21/2009	101.00	107.40	83.00	101.00
SAMP	0911067-01A	11/21/2009	114.60	112.20	85.60	102.00

Test	Test Description	Limits
12Dd4	1,2-Dichloroethane-d4	60-133
Td8	Toluene-d8	67-128
4BFB	4-Bromofluorobenzene	70-125
DBFM	Dibromofluoromethane	70-122

For Surrogates: 0 = Dil.Out

Alamo Analytical Laboratories, LTD

SURROGATE RECOVERIES REPORT

WorkOrder: 0911053

Report Date: 12/1/2009

Company: Alamo 1 PROJECT: LHAAP19-LFCA ATTN: Greg Osuna

Method Code Semi-volatile Organics by GC/MS *Method Code* SW 8270C

BatchID SVOC1_091129A *Test Matrix* Soil

SampType	SampID	AnalDate	246TBP	2FBP	2FP	NBD5	PD5	TD14
MBLK	11BLK18A	11/30/2009	62.73	88.62	79.09	71.26	95.76	82.04
LFB	11LCS18A	11/30/2009	129.39	88.02	93.64	108.98	91.52	92.81
SAMP	0911053-02A	11/30/2009	70.61	90.42	79.39	70.06	93.64	74.85
SAMP	0911053-03A	11/30/2009	65.15	87.43	77.27	68.26	94.24	78.44
SAMP	0911053-04A	11/30/2009	71.52	89.22	74.55	67.66	82.42	100.00
SAMP	0911053-05A	11/30/2009	68.79	85.63	73.33	62.28	79.39	90.42
SAMP	0911053-06A	11/30/2009	56.36	88.62	75.15	62.28	82.73	89.82
SAMP	0911053-07A	11/30/2009	65.76	90.42	79.39	65.27	81.82	83.23
MSDF	0911053-02A	11/30/2009	121.52	84.43	88.79	100.60	85.15	83.23
MS_F	0911053-02A	11/30/2009	123.94	86.23	87.88	102.40	85.45	88.62

Test	Test Description	Limits
246TBP	2,4,6-Tribromophenol	11-143
2FBP	2-Fluorobiphenyl	49-125
2FP	2-Fluorophenol	28-110
NBD5	Nitrobenzene-d5	36-122
PD5	Phenol-d5	10-110
TD14	Terphenyl-d14	10-176

For Surrogates: 0 = Dil.Out

Alamo Analytical Laboratories, LTD

SURROGATE RECOVERIES REPORT

WorkOrder: 0911053

Report Date: 12/1/2009

Company: Alamo 1 | PROJECT: LHAAP19-LFCA | ATTN: Greg Osuna

Method Code	SVOCs by SIM GC/MS	*Method Code*	SW 8270C
BatchID	SVOC1_091130A	*Test Matrix*	Soil

SampType	*SampID*	*AnalDate*	*246TBP*	*2FBP*	*2FP*	*NBD5*	*PD5*	*TD14*
MBLK	11BLK18A	12/1/2009						0.00
SAMP	0911053-02A	12/1/2009						0.00
SAMP	0911053-03A	12/1/2009						0.00
SAMP	0911053-04A	12/1/2009						0.00
SAMP	0911053-05A	12/1/2009						0.00
SAMP	0911053-06A	12/1/2009						0.00
SAMP	0911053-07A	12/1/2009						0.00

Test	***Test Description***	***Limits***
246TBP	2,4,6-Tribromophenol	11-143
2FBP	2-Fluorobiphenyl	49-125
2FP	2-Fluorophenol	28-110
NBD5	Nitrobenzene-d5	36-122
PD5	Phenol-d5	10-110
TD14	Terphenyl-d14	10-176

For Surrogates: 0 = Dil.Out

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 12/1/2009

Job Number.: 0911053 Project Name...: LHAAP19-LFCA

Customer.....: Alamo 1 Attn.....: Greg Osuna

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
HG_R_S	BLK	11/12/2009 10:30:00 AM	11/12/2009

Method:	Description:	BatchID:	RunID:
SW 7471A	MERCURY, TOTAL	HG_R_S-11/12/2009	HG_091112B

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0911053-02	B1 0-1'	11/12/2009 2:35:00 PM	1
0911053-03	B1 14-15'	11/12/2009 2:35:00 PM	1
0911053-04	B9 0-1'	11/12/2009 2:35:00 PM	1
0911053-05	B9 14-15'	11/12/2009 2:35:00 PM	1
0911053-06	B7 0-1'	11/12/2009 2:35:00 PM	1
0911053-07	B7 14-15'	11/12/2009 2:35:00 PM	1

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
TAL_S	BLK	11/16/2009 9:00:00 AM	11/12/2009

Method:	Description:	BatchID:	RunID:
SW 6010B	TARGET ANALYTE LIST	TAL_S-11/16/2009	ICP_091117C

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0911053-02	B1 0-1'	11/16/2009 1:00:00 PM	1
0911053-03	B1 14-15'	11/16/2009 1:00:00 PM	1
0911053-04	B9 0-1'	11/16/2009 1:00:00 PM	1
0911053-05	B9 14-15'	11/16/2009 1:00:00 PM	1
0911053-06	B7 0-1'	11/16/2009 1:00:00 PM	1
0911053-07	B7 14-15'	11/16/2009 1:00:00 PM	1

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 12/1/2009

Job Number.: 0911053 Project Name...: LHAAP19-LFCA

Customer.....: Alamo 1 Attn.....: Greg Osuna

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
8270C_S	11BLK18A	11/18/2009 9:30:00 AM	11/12/2009

Method:	Description:	BatchID:	RunID:
SW 8270C	Semi-volatile Organics by	SVOC1_091129A	SVOC1_091129A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0911053-02	B1 0-1'	11/30/2009 3:47:00 AM	1
0911053-03	B1 14-15'	11/30/2009 5:47:00 AM	1
0911053-04	B9 0-1'	11/30/2009 6:26:00 AM	1
0911053-05	B9 14-15'	11/30/2009 7:06:00 AM	1
0911053-06	B7 0-1'	11/30/2009 7:46:00 AM	1
0911053-07	B7 14-15'	11/30/2009 8:25:00 AM	1

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
8270_SIM	11BLK18A	11/18/2009 9:30:00 AM	11/12/2009

Method:	Description:	BatchID:	RunID:
SW 8270C	SVOCs by SIM GC/MS	SVOC1_091130A	SVOC1_091130A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0911053-02	B1 0-1'	12/1/2009 1:51:00 AM	1
0911053-03	B1 14-15'	12/1/2009 2:30:00 AM	1
0911053-04	B9 0-1'	12/1/2009 3:10:00 AM	1
0911053-05	B9 14-15'	12/1/2009 3:49:00 AM	1
0911053-06	B7 0-1'	12/1/2009 4:29:00 AM	1
0911053-07	B7 14-15'	12/1/2009 5:08:00 AM	1

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 12/1/2009

Job Number.: 0911053 Project Name...: LHAAP19-LFCA

Customer.....: Alamo 1 Attn.....: Greg Osuna

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
CN_R_TS	BLK	11/17/2009	11/12/2009

Method:	Description:	BatchID:	RunID:
SW 9010A	CYANIDE, TOTAL	CN_R_TS-11/17/2009	UV1_091117A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0911053-02	B1 0-1'	11/17/2009	10
0911053-03	B1 14-15'	11/17/2009	10
0911053-04	B9 0-1'	11/17/2009	10
0911053-05	B9 14-15'	11/17/2009	10
0911053-06	B7 0-1'	11/17/2009	10
0911053-07	B7 14-15'	11/17/2009	10

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
CR6_S	BLK	11/19/2009	11/12/2009

Method:	Description:	BatchID:	RunID:
SW 7196A	HEXAVALENT CHROMIU	CR6_S-11/19/2009	UV1_091119C

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0911053-02	B1 0-1'	11/19/2009	20
0911053-03	B1 14-15'	11/19/2009	20
0911053-04	B9 0-1'	11/19/2009	1
0911053-05	B9 14-15'	11/19/2009	1
0911053-06	B7 0-1'	11/19/2009	1
0911053-07	B7 14-15'	11/19/2009	1

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 12/1/2009

Job Number.: 0911053 Project Name...: LHAAP19-LFCA

Customer.....: Alamo 1 Attn.....: Greg Osuna

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
8260B_S	11BLK16A	11/16/2009 2:22:00 PM	11/12/2009

Method:	Description:	BatchID:	RunID:
SW 8260B	Volatile Organics by GC/M	VOC1_091116A	VOC1_091116A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0911053-02	B1 0-1'	11/16/2009 6:00:00 PM	1
0911053-03	B1 14-15'	11/16/2009 6:44:00 PM	1
0911053-04	B9 0-1'	11/16/2009 7:28:00 PM	1
0911053-05	B9 14-15'	11/16/2009 8:55:00 PM	1
0911053-06	B7 0-1'	11/16/2009 11:06:00 PM	1
0911053-07	B7 14-15'	11/16/2009 11:50:00 PM	1

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
8260B_W	11BLK18A	11/18/2009 5:16:00 PM	11/12/2009

Method:	Description:	BatchID:	RunID:
SW 8260B	Volatile Organics by GC/M	VOC1_091118A	VOC1_091118A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0911053-01	TB1	11/18/2009 8:54:00 PM	1

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 12/1/2009

Job Number.: 0911053 Project Name...: LHAAP19-LFCA

Customer.....: Alamo 1 Attn.....: Greg Osuna

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
8260B_SIM	11BLK21A	11/21/2009 12:41:00 PM	11/12/2009

Method:	Description:	BatchID:	RunID:
SW 8260B	Volatiles by SIM method So	VOC1_091121A	VOC1_091121A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0911053-02	B1 0-1'	11/21/2009 2:08:00 AM	1
0911053-03	B1 14-15'	11/21/2009 3:17:00 AM	1
0911053-04	B9 0-1'	11/21/2009 3:55:00 AM	1
0911053-05	B9 14-15'	11/21/2009 4:33:00 AM	1
0911053-06	B7 0-1'	11/21/2009 5:11:00 AM	1
0911053-07	B7 14-15'	11/21/2009 5:48:00 AM	1

Alamo Analytical Laboratories, LTD
(DBA Chemron)

QUALITY ASSURANCE METHODS REFERENCES AND NOTES

Report Date: Dec 01, 2009

(1) EPA SW-846, Test Method for Evaluating Solid Waste, Third Edition, September 1986, and Updates I, II, IIA, IIB, and III

(2) ASTM, Section 11 Water and Environmental Technology, Volume 11.01 Water (1), 1991

(3) TCEQ Method 1005, Revision 3, June 2001

QC Sample Identification:

DF:	Dilution Factor
MBLK:	Method Blank
MS/MS_F:	Method (Matrix) Spike
MSD/MSDF:	Method (Matrix) Spike Duplicate
LCS:	Laboratory Control Standard
LCSD:	Laboratory Control Standard Duplicate
LFB:	Laboratory Fortified Blank
LFBD:	Laboratory Fortified Blank Duplicate
DUP:	Sample Duplicate
RPD:	Relative Percent Difference

General Qualifiers:

U - Analyte was analyzed but not detected
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

10526 Gulfdale San Antonio, TX 78216

1 of 1

CHAIN OF CUSTODY RECORD

COC #: 07284

ALAMO ANALYTICAL LABORATORIES LTD.
10526 Gulfdale
San Antonio, Texas 78216
(210) 340-8121 • (800) 572-6955
Fax: (210) 340-8123
www.alamoanalytical.com
admin@alamoanalytical.com

NELAP Certificate # T104704367-08-TX

MUST BE COMPLETED BY CLIENT

Alamo's Client: Alamo Environmental	Client's P.O. #: AR09-195
Project Manager: Greg Osuna	Phone #: 210-404-1220
Address: 10843 Gulfdale, San Antonio, TX 78216	Fax #:
Project Number:	Project Name: LHAAP19 LFCA
Project Location: LHAAP Karnack, TX	Sampler Signature:

Turnaround time: Standard (7) ☒ (in working days)
RUSH: 1☐ 2☐ 3-5☐ Days (additional charges)
TRRP 13 Report: Yes ☒ No ☐ (additional charges)
Analysis for Permit Compliance: Yes ☐ No ☒
DMR Form Required: Yes ☐ No ☐

LAB ID# (Do not use)	Sampling Date	Sampling Time	Composite	Grab	Matrix	FIELD ID #	FIELD DESCRIPTION	No. of Containers	ANALYSIS	VOCs	SVOCs	TAL Metals				REMARKS (Preservation, Size/Amount, Etc.)
911053-01	11/9/09	0924			water	TB1		2		X						
911053-02	11/11/09	0959		X	soil	B1	0-1'	2		X	X	X				
911053-03	11/11/09	1009		X	soil	B1	14-15'	2		X	X	X				
911053-04	11/11/09	1039		X	soil	B9	0-1'	2		X	X	X				
911053-05	11/11/09	1049		X	soil	B9	14-15'	2		X	X	X				
911053-06	11/11/09	1119		X	soil	B7	0-1'	2		X	X	X				
911053-07	11/11/09	1128		X	soil	B7	14-15'	2		X	X	X				

Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Jeanie M. Odom / Jeanie M. Odom	11-11-9 ~~11/28/09~~	1138	Lone Star Overnight
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Relinquished by: (Signature / Print Name)	Date 11-12-09	Time 0800	Received for Laboratory by: (Signature)

	Solid	TB	
Headspace	N/A	N	If Yes, Amt.
Properly Sealed	Y	Y	If No, Explain
Chilled ≤4° C	Y	Y	If No, Temp.

Comments:
Refer to work Plan for methods and CRQL + LORPs.

Alamo Analytical Laboratories, LTD
(DBA Chemron)

10526 Gulfdale, San Antonio , Texas 78216-3601 (210) 340-8121
alamo_labs@sbcglobal.net; www.alamoanalytical.com

Sample Log-In Checklist

DATE: 11 / 12 / 2009 **TIME:** 0800 **INITIALS:** D

CLIENT: Alamo Env. **PROJECT:** LHAAP 19 LFCA **W.O#** 911053

1. Is a Chain of Custody present? Yes No
2. Is a Chain of Custody properly completed? Yes No
3. Are custody seals present? Yes No
   If yes, are they intact? Yes No
   Are they on: Sample _____ or on Shipping Container _____
4. Are all samples tagged or labeled? Yes No
   If yes, do the labels match the Chain of Custody? Yes No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   If not, describe below. Yes No N/A
6. Are samples preserved properly? *If not*, describe below. Yes No
7. Are all samples within holding times on arrival? Yes No
   If not, describe below.

Other

8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: 1°C
11. Delivery agent: Client ___ UPS ___ Fed-Ex ___ Lone Star ✓ Alamo P/U ___ Other _____
12. Sample disposal: Return to client _____ Alamo Analytical Disposal ✓

Comments: (Reference checklist item number from above, or for comments on resolution below):

#2 Relinquished date wrong, corrected. @ 11-12-2009 (TRRP)
#2 Sampler Signature missing
(Solid + Trip Blk)

Record of contacting client for resolution of sample discrepancies (first and retry contact)
Contacted How?

Name: Phylis Primrose Phone ✓ Fax ___ Date: 11 / 12 / 9 Time: 1150
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

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Data Usability Summary
LHAAP-19
Lab Project No. 455502

Introduction

Regulatory Compliance & Guidance (RCG) reviewed one data package (Project No. 455502) from Ana-Lab Corporation. The data package was reviewed following guidance (Consistency Document[1] and TRRP-13[2]) prepared by the Texas Commission on Environmental Quality (TCEQ) and the equivalent sections of engineering manual (EM) 200-1-10[3] prepared by the US Army Corps of Engineers (USACE).

Intended Use of Data

The intended use of the data is to support a risk-based closure of the LHAAP-19 under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) consistent with requirements of Title 30 Texas Administrative Code (TAC) §335.8 (relating to closure and remediation).

Data Package Content

In order to ensure data quality, a TRRP-13[4] reporting package was provided by the laboratory. The data package included the following:

- completed chain of custody form,
- analytical results,
- sample preparation chronology,
- signature page, and
- quality control data

Chain of Custody Form

Twelve (12) soil samples were collected August 31 through September 1, 2009 from the Longhorn Army Ammunition Plant (LHAAP) Site 19 in Karnack, TX (Site). According to the chain of custody form, the soil samples were to be analyzed for perchlorate. One sample (B3 1 to 2) was identified as the matrix spike / matrix spike duplicate (MS/MSD).

Analytical Methods, Preservation, and Holding Times

Perchlorate was analyzed using analytical method 314.0 as described in the *Determination of Perchlorate in Drinking Water using Ion Chromatography.*[5] This analytical method was specified in the TCEQ-approved Work Plan[6] for this project.

EPA (1999) specifies that perchlorate samples do not need to be preserved and the holding time is 28 days. The samples were stored on ice until delivered to the lab. The

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[1] TCEQ. 1998. Interoffice Memorandum regarding Implementation of the Existing Risk Reduction Rule. July 23.
[2] TCEQ. 2002. Review and Reporting COC Concentration Data. RG366/TRRP-13. December.
[3] USACE. 2005. Guidance for Evaluating Performance-Based Chemical Data. EM 200-1-10. June 30. http://140.194.76.129/publications/eng-manuals/em200-1-10/entire.pdf
[4] TCEQ. 2002. Review and Reporting of COC Concentration Data, RG-366, TRRP-13. December.
[5] EPA. 1999. Method 314.0 Determination of Perchlorate in Drinking Water Using Ion Chromatography. Rev. 1.0. November.
[6] USACE. 2009. Landfill Closure Assessment Work Plan for the Construction & Demolition Debris Landfill (LHAAP-19), Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas. August 5.

samples were analyzed on September 8, 2009. Preparation and analyses for perchlorate were compliant with the holding times.

Quality Control

Blanks

Blanks are used to determine if the samples may have been contaminated as the result of transportation or laboratory practices. If an analyte is detected in a blank, then a detected result in an associated sample may not be representative of actual site conditions.

Perchlorate was not detected in the laboratory blank.

Laboratory Control Samples

According to the Environmental Protection Agency (EPA)[7], "The primary purpose of the laboratory control sample (LCS) is to demonstrate that the laboratory can perform the overall analytical approach in a matrix free of interferences (e.g, in reagent water, clean sand, or another suitable reference matrix)." The percent recovery indicates the accuracy of the lab and whether the data is biased (high or low). The relative percent difference (RPD) indicates the laboratory's ability to reproduce the data (precision).

The percent recoveries are listed in Table 1. The project control limits for perchlorate were taken from Table G-3 of the Department of Defense (DOD) Handbook for Perchlorate (DoD, 2007)[8].

Table 1 LCS Percent Recoveries Compared to Project and Laboratory Control Limits

Method Description	Percent Recovery	Project Control Limits (% Recovery)	Laboratory Control Limits (% Recovery)
Perchlorate	102	80-120	90-110

The control limit for perchlorate was met.

Matrix spike and matrix spike duplicate (MS/MSD)

The MS/MSD results measure a method's performance relative to the specific sample matrix of interest (EPA, 2009). If the percent recoveries and relative percent differences (RPDs) for the MS/MSD are similar to those of the LCS/LCSDs, then matrix interference is unlikely.

Project limits were conservatively set to those of the LCS (USACE, 2005). Project sample 129603 (B3 1-2) was to be used as the MS/MSD for perchlorate. However, non-project samples were used as the duplicates for perchlorate. Since project samples were not used, the data was not qualified based on the MS/MSD results.

[7] EPA. 2009. Batch Sizes and QC Questions. Downloaded from web page on December 4. http://www.epa.gov/osw/hazard/testmethods/faq/faqs_qc.htm#Spike

[8] DoD, 2007. Perchlorate Handbook. August. http://www.navylabs.navy.mil/Archive/DODPerchlorateHandbookR1C1.pdf

Surrogate Recoveries
Surrogates are similar in chemical composition to the organic analytes of interest. The surrogates are spiked into environmental and batch QC samples prior to sample preparation and analysis. Surrogate recoveries are used to evaluate potential bias that could have been introduced by the preparatory procedures and/or the analysis (TCEQ, 2002) and to evaluate matrix interference on a sample-specific basis (USACE, 2001).

Surrogates are not applicable for perchlorate.

Analytical Results

Detected
Perchlorate was not detected in the environmental samples.

Non-detected
Non-detected results were reported as less than the reporting limit (RL). The associated narrative states that the RL is equivalent to the sample quantitation limit (SQL) and the RL is “at or above the method detection limit (MDL)”.

Perchlorate was not detected in any of the associated samples. The SQLs were less than the applicable regulatory standards based on residential land use.

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com LELAP-accredited #02008

Analytical Results

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Report Table of Contents

Account
ALA4

Project
455502

LHAAP19 Karnack,TX LFCA

This report consists of this Table of Contents and the following pages:

Report Name	Description	Pages
455502_r03_03_ProjectResults	Ana-Lab Project P:455502 C:ALA4 Project Results	9
455502_r10_05_PROJQCG	Ana-Lab Project P:455502 C:ALA4 Project Quality Control Groups	2
455502_r99_09_CoC_ALA4_1_of_1	Ana-Lab CoC ALA4 455502_1_of_1	2
	Total Pages:	13

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com LELAP-accredited #02008

Results

Printed: 09/10/2009

Account **ALA4-C**

Project **455502**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP19 Karnack,TX LFCA

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
129597	**B-7 0-1 FT**					*Received:*	09/01/2009
	Soil	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	10:33
	EPA 314.0			*Analyzed:*	*GDG*	*09/08/2009*	*1915*	*QCgroup*	*333838*
z	**Perchlorate (water extractable)**	**<0.0434 ***	**mg/kg**	0.0434			02
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/04/2009*	*1421*	*QCgroup*	*333292*
AN	**Total Solids**	**92.1**	**%**	0.1			01
129598	**B7 14-15 FT**					*Received:*	09/01/2009
	Soil	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	10:38
	EPA 314.0			*Analyzed:*	*GDG*	*09/08/2009*	*1949*	*QCgroup*	*333838*
z	**Perchlorate (water extractable)**	**<0.0443 ***	**mg/kg**	0.0443			02
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/04/2009*	*1515*	*QCgroup*	*333315*
AN	**Total Solids**	**90.3**	**%**	0.1			01
129599	**B9 0-2 FT**					*Received:*	09/01/2009
	Soil	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	11:23
	EPA 314.0			*Analyzed:*	*GDG*	*09/08/2009*	*2022*	*QCgroup*	*333838*
z	**Perchlorate (water extractable)**	**<0.046 ***	**mg/kg**	0.046			02
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/04/2009*	*1515*	*QCgroup*	*333315*
AN	**Total Solids**	**87.0**	**%**	0.1			01
129600	**B9 14-15 FT**					*Received:*	09/01/2009
	Soil	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	11:54
	EPA 314.0			*Analyzed:*	*GDG*	*09/08/2009*	*2055*	*QCgroup*	*333838*
z	**Perchlorate (water extractable)**	**<0.0474 ***	**mg/kg**	0.0474			02
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/04/2009*	*1515*	*QCgroup*	*333315*

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Results

Printed: 09/10/2009

Account: ALA4-C

Project: 455502

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP19 Karnack,TX LFCA

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
129600	**B9 14-15 FT**					*Received:*	09/01/2009
	Soil	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	11:54
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/04/2009*	*1515* *QCgroup* *333315*
AN	**Total Solids**	**84.4**	**%**	0.1			01
129601	**B1 1-2 FT**					*Received:*	09/01/2009
	Soil	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	16:22
	EPA 314.0			*Analyzed:*	*GDG*	*09/08/2009*	*2128* *QCgroup* *333838*
z	**Perchlorate (water extractable)**	**<0.0463 ***	**mg/kg**	0.0463			02
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/04/2009*	*1515* *QCgroup* *333315*
AN	**Total Solids**	**86.3**	**%**	0.1			01
129602	**B1 13-14 FT**					*Received:*	09/01/2009
	Soil	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	16:32
	EPA 314.0			*Analyzed:*	*GDG*	*09/08/2009*	*2201* *QCgroup* *333838*
z	**Perchlorate (water extractable)**	**<0.0456 ***	**mg/kg**	0.0456			02
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/04/2009*	*1515* *QCgroup* *333315*
AN	**Total Solids**	**87.7**	**%**	0.1			01
129603	**B3 1-2**					*Received:*	09/01/2009
	Soil	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	16:59
	EPA 314.0			*Analyzed:*	*GDG*	*09/08/2009*	*2235* *QCgroup* *333838*
z	**Perchlorate (water extractable)**	**<0.0462 ***	**mg/kg**	0.0462			03
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/04/2009*	*1515* *QCgroup* *333315*
AN	**Total Solids**	**86.6**	**%**	0.1			01

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Results

Printed: 09/10/2009

Account: ALA4-C

Project: 455502

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP19 Karnack,TX LFCA

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
129604	**B3 14-15**					*Received:*	09/01/2009
	Soil	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	17:08
	EPA 314.0			*Analyzed:*	*GDG*	*09/08/2009*	*2308* *QCgroup* *333838*
z	**Perchlorate (water extractable)**	**<0.0445 ***	**mg/kg**	0.0445			02
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/04/2009*	*1515* *QCgroup* *333315*
AN	**Total Solids**	**89.9**	**%**	0.1			01
129605	**B2 0.5-1.0**					*Received:*	09/01/2009
	Soil	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	12:36
	EPA 314.0			*Analyzed:*	*GDG*	*09/08/2009*	*2341* *QCgroup* *333838*
z	**Perchlorate (water extractable)**	**<0.0448 ***	**mg/kg**	0.0448			02
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/04/2009*	*1515* *QCgroup* *333315*
AN	**Total Solids**	**89.2**	**%**	0.1			01
129606	**B2 21-21.5**					*Received:*	09/01/2009
	Soil	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	12:15
	EPA 314.0			*Analyzed:*	*GDG*	*09/09/2009*	*1214* *QCgroup* *333838*
z	**Perchlorate (water extractable)**	**<0.0501 ***	**mg/kg**	0.0501			02
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/04/2009*	*1515* *QCgroup* *333315*
AN	**Total Solids**	**79.8**	**%**	0.1			01
129607	**B4 3-3.5**					*Received:*	09/01/2009
	Soil	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	10:23
	EPA 314.0			*Analyzed:*	*GDG*	*09/09/2009*	*0154* *QCgroup* *333838*
z	**Perchlorate (water extractable)**	**<0.0495 ***	**mg/kg**	0.0495			02
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/04/2009*	*1515* *QCgroup* *333315*

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Results

Printed: 09/10/2009

Account **ALA4-C**

Project **455502**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP19 Karnack,TX LFCA

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS		Bottle
129607	**B4 3-3.5**					*Received:*		09/01/2009
	Soil	*Collected by:* Client		*Affiliation:*	RCG Texas		08/31/2009	10:23
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/04/2009*	*1515*	*QCgroup* *333315*
AN	**Total Solids**	**80.8**	**%**	0.1				01
129608	**B4 13-14**					*Received:*		09/01/2009
	Soil	*Collected by:* Client		*Affiliation:*	RCG Texas		08/31/2009	10:53
	Bottle ID: B4 13.5-14							
	EPA 314.0			*Analyzed:*	*GDG*	*09/09/2009*	*0227*	*QCgroup* *333838*
z	**Perchlorate (water extractable)**	**<0.0461 ***	**mg/kg**	0.0461				02
	* Dry Weight Basis							
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/04/2009*	*1515*	*QCgroup* *333315*
AN	**Total Solids**	**86.7**	**%**	0.1				01

Sample Preparation

129597	**B-7 0-1 FT**					*Received:*		09/01/2009
				Analyzed:	*KAT*	*09/01/2009*		
	Bottle Temperature on Receipt	**2**	**degrees**					01
	Calculation			*Analyzed:*	*CAL*	*09/10/2009*	*09:15*	
	As Received to Dry Weight Basis	**Calculated**						
	SW-846 9056			*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup* *333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01
129598	**B7 14-15 FT**					*Received:*		09/01/2009
				Analyzed:	*KAT*	*09/01/2009*		
	Bottle Temperature on Receipt	**3**	**degrees**					01
	Calculation			*Analyzed:*	*CAL*	*09/10/2009*	*09:15*	
	As Received to Dry Weight Basis	**Calculated**						

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Account **ALA4-C**

Project **455502**

Report To

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Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

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Sample Preparation

129598 **B7 14-15 FT** *Received:* 09/01/2009

	SW-846 9056		*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

129599 **B9 0-2 FT** *Received:* 09/01/2009

			Analyzed:	*KAT*	*09/01/2009*			
	Bottle Temperature on Receipt	**2**	**degrees**					01
	Calculation		*Analyzed:*	*CAL*	*09/10/2009*	*09:15*		
	As Received to Dry Weight Basis	**Calculated**						
	SW-846 9056		*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

129600 **B9 14-15 FT** *Received:* 09/01/2009

			Analyzed:	*KAT*	*09/01/2009*			
	Bottle Temperature on Receipt	**1**	**degrees**					01
	Calculation		*Analyzed:*	*CAL*	*09/10/2009*	*09:15*		
	As Received to Dry Weight Basis	**Calculated**						
	SW-846 9056		*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

129601 **B1 1-2 FT** *Received:* 09/01/2009

			Analyzed:	*KAT*	*09/01/2009*			
	Bottle Temperature on Receipt	**4**	**degrees**					01
	Calculation		*Analyzed:*	*CAL*	*09/10/2009*	*09:15*		
	As Received to Dry Weight Basis	**Calculated**						

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Results

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Account **ALA4-C**

Project **455502**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP19 Karnack,TX LFCA

Sample Preparation

129601 **B1 1-2 FT** *Received:* 09/01/2009

	SW-846 9056			*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**						01

129602 **B1 13-14 FT** *Received:* 09/01/2009

				Analyzed:	*KAT*	*09/01/2009*			
	Bottle Temperature on Receipt	**6**	**degrees**						01
	Calculation			*Analyzed:*	*CAL*	*09/10/2009*	*09:15*		
	As Received to Dry Weight Basis	**Calculated**							
	SW-846 9056			*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**						01

129603 **B3 1-2** *Received:* 09/01/2009

				Analyzed:	*KAT*	*09/01/2009*			
z	**Bottle pH**	**<2**	**SU**						01
	Bottle Temperature on Receipt	**2**	**degrees**						01
	Bottle Temperature on Receipt	**4**	**degrees**						02
	Calculation			*Analyzed:*	*CAL*	*09/10/2009*	*09:15*		
	As Received to Dry Weight Basis	**Calculated**							
	SW-846 9056			*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**						01

129604 **B3 14-15** *Received:* 09/01/2009

				Analyzed:	*KAT*	*09/01/2009*			
	Bottle Temperature on Receipt	**3**	**degrees**						01
	Calculation			*Analyzed:*	*CAL*	*09/10/2009*	*09:15*		

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Results

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Account **ALA4-C**

Project **455502**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP19 Karnack,TX LFCA

Sample Preparation

129604 **B3 14-15** *Received:* 09/01/2009

Calculation			*Analyzed:*	*CAL*	*09/10/2009*	*09:15*		
	As Received to Dry Weight Basis	**Calculated**						
SW-846 9056			*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

129605 **B2 0.5-1.0** *Received:* 09/01/2009

			Analyzed:	*KAT*	*09/01/2009*			
	Bottle Temperature on Receipt	**2**	**degrees**					01
Calculation			*Analyzed:*	*CAL*	*09/10/2009*	*09:15*		
	As Received to Dry Weight Basis	**Calculated**						
SW-846 9056			*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

129606 **B2 21-21.5** *Received:* 09/01/2009

			Analyzed:	*KAT*	*09/01/2009*			
	Bottle Temperature on Receipt	**8**	**degrees**					01
Calculation			*Analyzed:*	*CAL*	*09/10/2009*	*09:15*		
	As Received to Dry Weight Basis	**Calculated**						
SW-846 9056			*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

129607 **B4 3-3.5** *Received:* 09/01/2009

			Analyzed:	*KAT*	*09/01/2009*			
	Bottle Temperature on Receipt	**3**	**degrees**					01

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Results

Printed: 09/10/2009

Account **ALA4-C**

Project **455502**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP19 Karnack,TX LFCA

Sample Preparation

129607 **B4 3-3.5** *Received:* 09/01/2009

	Calculation		*Analyzed:*	*CAL*	*09/10/2009*	*09:15*		
	As Received to Dry Weight Basis	**Calculated**						
	SW-846 9056		*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

129608 **B4 13-14** *Received:* 09/01/2009

			Analyzed:	*KAT*	*09/01/2009*			
	Bottle Temperature on Receipt	**3**	**degrees**					01
	Calculation		*Analyzed:*	*CAL*	*09/10/2009*	*09:15*		
	As Received to Dry Weight Basis	**Calculated**						
	SW-846 9056		*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

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Results

Printed:
09/10/2009

Account
ALA4-C

Project
455502

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP19 Karnack,TX LFCA

Qualifiers:

We report results on an 'As Received' or wet basis unless marked 'Dry Weight'. Unless otherwise noted, testing was performed at Ana-lab's corporate laboratory that holds the following Federal and State certificates: Texas Department of Health Lead Firm Certificate 2110076, EPA National Lead Laboratory Accreditation Program #637.01, US Department of Agriculture Soil Import Permit S-37592, Texas Commisson on Environmental Quality Drinking Water Laboratory Certificate TX219, Texas Commission on Environmental Quality NELAP T104704201-06-TX, Oklahoma Department of Environmental Quality Drinking Water Certification Lab ID# D9913, EPA Lab Number TX00063, USEPA Approved Perchlorate Testing Lab, Oklahoma Department of Environmental Quality Laboratory Certificate 8125, Arkansas Department of Environmental Quality Certification #03-070-0, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) # LA030020, US Department of Energy Approved, State of Kansas Department of Health and Environment Waste Water and Solid/Hazardous Waste Cert. E-10365, Alabama Department of Environmental Management Drinking Water #41540. Ana-Lab is also accredited to the international ISO-17025 standard by the American Association for Laboratory Accreditation (A2LA Certificate # 0637-01). The Accredited column designates accreditation by U - UCMR2 (EPA), A -- A2LA, N -- NELAC, or z -- not covered under A2LA or NELAC scope of accreditation.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of Ana-Lab Corp. Unless otherwise specified, these test results meet the requirements of NELAC.
RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number.

Roy White, MS, Quality Director

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

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Quality Control

Printed 09/10/2009

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Project 455502

333838 I Soil EPA 314.0

AWRL

Parameter	Reading	Known	Units	Recover%	Limits%	Out	File
Perchlorate (water extractable)	0.00389	0.00400	mg/kg	97.2	75.0 - 125		0011224431

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	Out	File
Perchlorate (water extractable)	333512	ND	0.000801	0.00400	mg/kg		0011224434

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	Out	File
Perchlorate (water extractable)	0.0228	0.0250	mg/kg	91.2	75.0 - 125		0011224448
Perchlorate (water extractable)	0.0240	0.0250	mg/kg	96.0	75.0 - 125		0011224462
Perchlorate (water extractable)	0.0250	0.0250	mg/kg	100	75.0 - 125		0011224433
Perchlorate (water extractable)	0.0257	0.0250	mg/kg	103	75.0 - 125		0011224430
Perchlorate (water extractable)	0.0967	0.100	mg/kg	96.7	75.0 - 125		0011224432
Perchlorate (water extractable)	0.0980	0.100	mg/kg	98.0	75.0 - 125		0011224447
Perchlorate (water extractable)	0.0984	0.100	mg/kg	98.4	75.0 - 125		0011224461
Perchlorate (water extractable)	0.108	0.100	mg/kg	108	75.0 - 125		0011224429

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File	Out
Perchlorate (water extractable)	333512	0.256	0.250	mg/kg	102	90.0 - 110	0011224435	

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Perchlorate (water extractable)	333512	0.256	0.239	0.250	90.0 - 110	102	95.6	mg/kg	6.48	14.0

333292 W Soil

Blank

Parameter	Type	Result	Unit
Total Solids	Blank	0.0000	grams

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

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Quality Control

Printed 09/10/2009

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Project 455502

333292 W **Soil**

Duplicate

Parameter	*Sample*	*Type*	*Result*	*Duplicate*	*Unit*	*RPD*	*Limit%*
Total Solids	130854	Duplicate	84.7	83.9	%	0.949	25
Total Solids	130853	Duplicate	86.7	86.5	%	0.231	25

333315 W **Soil**

Blank

Parameter	*Type*	*Result*	*Unit*
Total Solids	Blank	-0.000100	grams

Duplicate

Parameter	*Sample*	*Type*	*Result*	*Duplicate*	*Unit*	*RPD*	*Limit%*
Total Solids	130038	Duplicate	2.26	2.30	%	1.75	25
Total Solids	129980	Duplicate	79.0	76.8	%	2.82	25

RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

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Chain of Custody

08/26/2009 Page 1 of 2

Report To

Phyllis Primrose
RCG Texas
2101 Colston Drive
Tyler, TX 75703
5126949326

LHAAP19 Karnachi TX LFCA

RCGT

101

Lab Number

Phone 512/694-9326
Fax

Perchlorate SOIL TRRP

Accredited	Test	Name	Method

Matrix: Soil

Sampler Printed Name Phyllis Primrose *Sampler Affiliation* RCG *Sampler Signature*

***Glass 4 oz w/Teflon lined lid**

AN	**!PeS**	Perchlorate (water extractable)	EPA 314.0
AN	**TS%**	Total Solids	SM 2540 G, 20th Ed.

Z1-Adminstrative use only: no bottle required

ARDW	As Received to Dry Weight Basis	Calculation

Ana-Lab #	Sample ID	Bottles	Date	Time	Notes
129597	B7 0-1 FT	1	8/31/09	1033	
598	B7 14-15 FT	1	8/31/09	1038	
599	B9 0-2 FT	1	8/31/09	1123	
600	B9 14-15 FT	1	8/31/09	1154	
601	B1 1-2 FT	1	8/31/09	1622	
602	B1 13-14	1		1632	
603	B3 1-2	2		1659	MS/MSD
604	B3 14-15	1		1708	
605	B2 0.5-1.0	1	9/1/09	1236	
606	B2 21-21.5	1	9/1/09	1215	
607	B4 3-3.5	1	9/1/09	1023	
608	B4 13-14	1	9/1/09	1053	

Ambient Conditions/Comments

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

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ANA-LAB CORP. THE COMPLETE SERVICE LAB

Chain of Custody

08/26/2009 Page 2 of 2

Report To

Phyllis Primrose
RCG Texas
2101 Colston Drive
Tyler, TX 75703

RCGT

101

Lab Number _____

Phone 512/694-9326
Fax

Perchlorate SOIL TRRP

Accredited Test Name Method

Date	Time	Relinquished		Received	
9/1/09	1545	*Printed Name* Phyllis Primrose	*Affiliation* RCG	*Printed Name* Jeff Tjodkov	*Affiliation* ETTL
		Signature [signature]		*Signature* [signature]	
9/1/09	1723	*Printed Name* Jeff Tjodkov	*Affiliation* ETTL	*Printed Name* Gayle Gardner	*Affiliation* Ana-Lab
		Signature [signature]		*Signature* Gayle D Gardner	
		Printed Name	*Affiliation*	*Printed Name*	*Affiliation*
		Signature		*Signature*	
		Printed Name	*Affiliation*	*Printed Name*	*Affiliation*
		Signature		*Signature*	

Sample Recieved on Ice? ☑ *Yes* ☐ *No* **Method of Shipment:** ☐ *UPS* ☐ *Bus* ☐ *FedEx* ☐ *Lone Star* ☑ *Hand Delivered* ☐ *Other*

Cooler/Sample Secure? ☑ *Yes* ☐ *No* **Tracking/Shipping #**

The accredited column designates accreditation by A - A2LA, N - NELAC, or z - not covered under A2LA or NELAC scope of accreditation.

Comments

003689 ☐
003233 ☑ <1°C
003532 ☐
003688 ☐

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Data Usability Summary
LHAAP-19
Lab Project No. 455504

Introduction

Regulatory Compliance & Guidance (RCG) reviewed one data package (Project No. 455504) from Ana-Lab Corporation. The data package was reviewed following guidance (Consistency Document[1] and TRRP-13[2]) prepared by the Texas Commission on Environmental Quality (TCEQ) and the equivalent sections of engineering manual (EM) 200-1-10[3] prepared by the US Army Corps of Engineers (USACE).

Intended Use of Data

The intended use of the data is to support a risk-based closure of the LHAAP-19 under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) consistent with requirements of Title 30 Texas Administrative Code (TAC) §335.8 (relating to closure and remediation).

Data Package Content

In order to ensure data quality, a TRRP-13[4] reporting package was provided by the laboratory. The data package included the following:

- completed chain of custody form,
- analytical results,
- sample preparation chronology,
- signature page, and
- quality control data

Chain of Custody Form

Twelve (12) soil samples were collected August 31 through September 1, 2009 from the Longhorn Army Ammunition Plant (LHAAP) Site 19 in Karnack, TX (Site). According to the chain of custody form, the soil samples were to be analyzed for explosives. One sample (B1 13-14) was identified as the matrix spike / matrix spike duplicate (MS/MSD).

Analytical Methods, Preservation, and Holding Times

Explosives were analyzed using Method 8330 as described in the *Test Methods for Evaluating Solid Waste, Third Edition, September 1986 and Updates I, II, IIA, IIB, and III* (SW-846). These analytical methods were specified in the TCEQ-approved Work Plan[5] for this project.

USACE (2001)[6] specifies that samples (solid) submitted for Method 8330 should be cooled to 4°C, extracted within 14 days and analyzed within 40 days of extraction. The

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[1] TCEQ. 1998. Interoffice Memorandum regarding Implementation of the Existing Risk Reduction Rule. July 23.
[2] TCEQ. 2002. Review and Reporting COC Concentration Data. RG366/TRRP-13. December.
[3] USACE. 2005. Guidance for Evaluating Performance-Based Chemical Data. EM 200-1-10. June 30. http://140.194.76.129/publications/eng-manuals/em200-1-10/entire.pdf
[4] TCEQ. 2002. Review and Reporting of COC Concentration Data, RG-366, TRRP-13. December.
[5] USACE. 2009. Landfill Closure Assessment Work Plan for the Construction & Demolition Debris Landfill (LHAAP-19), Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas. August 5.
[6] USACE. 2001. Engineering and Design – Requirements for the Preparation of Sampling and Analysis Plans. Publication EM 200-1-3. February 1.

samples were stored on ice until delivered to the lab. The samples were analyzed on September 16, 2009. Preparation and analysis were compliant with the preservation requirements and holding times.

Quality Control

Blanks

Blanks are used to determine if the samples may have been contaminated as the result of transportation or laboratory practices. If an analyte is detected in a blank, then a detected result in an associated sample may not be representative of actual site conditions.

Explosives were not detected in the laboratory blank.

Laboratory Control Samples

According to the Environmental Protection Agency (EPA)[7], "The primary purpose of the laboratory control sample (LCS) is to demonstrate that the laboratory can perform the overall analytical approach in a matrix free of interferences (e.g, in reagent water, clean sand, or another suitable reference matrix)." The percent recovery indicates the accuracy of the lab and whether the data is biased (high or low). The relative percent difference (RPD) indicates the laboratory's ability to reproduce the data (precision).

The lowest and highest percent recoveries are listed in Table 1. Project control limits for explosives were based on USACE, 2005. Since the laboratory control limits vary for each individual parameter, the widest range is listed for each test method.

Table 1 LCS Percent Recoveries Compared to Project and Laboratory Control Limits

Method Description	Percent Recovery	Project Control Limits (% Recovery)	Laboratory Control Limits (% Recovery)
Explosives	107-159	80-120	70-130

The control limits were met except for RDX (159). RDX was not detected in any of the associated samples. According to Table D-2 (TCEQ, 2002), the associated results do not need to be qualified.

Matrix spike and matrix spike duplicate (MS/MSD)

The MS/MSD results measure a method's performance relative to the specific sample matrix of interest (EPA, 2009). If the percent recoveries and relative percent differences (RPDs) for the MS/MSD are similar to those of the LCS/LCSDs, then matrix interference is unlikely.

[7] EPA. 2009. Batch Sizes and QC Questions. Downloaded from web page on December 4. http://www.epa.gov/osw/hazard/testmethods/faq/faqs_qc.htm#Spike

Project sample B1 13 to 14 was identified on the chain of custody form to be used as the MS/MSD. However, non-project samples were used as the MS/MSD. Therefore, the analytical results were not qualified based on the MS/MSD data.

Surrogate Recoveries
Surrogates are similar in chemical composition to the organic analytes of interest. The surrogates are spiked into environmental and batch QC samples prior to sample preparation and analysis. Surrogate recoveries are used to evaluate potential bias that could have been introduced by the preparatory procedures and/or the analysis (TCEQ, 2002) and to evaluate matrix interference on a sample-specific basis (USACE, 2001).

Project limits (USACE, 2005) used for surrogate recoveries are:
Purge and trap organics: 80–120%
Extractable organics: 60–140%

The laboratory control limits were 70 to 130% for percent recovery. Thirteen samples were spiked with concentrations of 3, 4-DNT ranging from 500 to 5000 ug/kg. The percent recoveries were within the control limits except in one sample. The sample was an LCS and the percent recovery was high (143%). According to TCEQ, 2002 Table D-2, the data do not need to be qualified.

Analytical Results

Detected
Explosives were not detected in any environmental sample.

Non-detected
Non-detected results were reported as less than the reporting limit (RL). The associated narrative states that the RL is equivalent to the sample quantitation limit (SQL) and the RL is “at or above the method detection limit (MDL)”.

Explosives were not detected in any of the associated samples. The SQLs for several of the analytes exceeded the GWP for residential land use. The laboratory reviewed the raw data[8] for explosives and “did not see any areas where explosives were present below [the] reporting limits”.

[8] Electronic mail from Tracey Arvel (Ana-lab) to Phyllis Primrose (RCG) on January 14, 2010.

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Analytical Results

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Report Table of Contents

Account
ALA4

Project
455504

AR09-195 LHAAP-19 karnack,TX LCFA

This report consists of this Table of Contents and the following pages:

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Results

Printed: 09/22/2009

Account **ALA4-C**

Project **455504**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

AR09-195 LHAAP-19 karnack,TX LCFA

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
129609	**B7 0-1 FT**					*Received:*	09/01/2009
	Solid	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	10:33
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1017* *QCgroup* *334832*
AN	**1,3,5 Trinitrobenzene**	**<1000**	**ug/kg**	1000		99-35-4	02
AN	**2,6 Dinitrotoluene**	**<1000**	**ug/kg**	1000		606-20-2	02
AN	**1,3-Dinitrobenzene (DNB)**	**<1000**	**ug/kg**	1000		99-65-0	02
AN	**2,4-Dinitrotoluene**	**<1000**	**ug/kg**	1000		121-14-2	02
AN	**2-Amino-4,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		35572-78-2	02
AN	**4-Amino-2,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		1946-51-0	02
AN	**HMX**	**<1000**	**ug/kg**	1000		2691-41-0	02
AN	**Nitrobenzene**	**<1000**	**ug/kg**	1000		98-95-3	02
AN	**2-Nitrotoluene**	**<1000**	**ug/kg**	1000		88-72-2	02
AN	**3-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-08-1	02
AN	**4-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-99-0	02
AN	**RDX**	**<1000**	**ug/kg**	1000		121-82-4	02
AN	**Tetryl**	**<1000**	**ug/kg**	1000		479-45-8	02
AN	**2,4,6-Trinitrotoluene**	**<1000**	**ug/kg**	1000		118-96-7	02
129610	**B7 14-15**					*Received:*	09/01/2009
	Solid	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	11:23
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1051* *QCgroup* *334832*
AN	**1,3,5 Trinitrobenzene**	**<1000**	**ug/kg**	1000		99-35-4	02
AN	**2,6 Dinitrotoluene**	**<1000**	**ug/kg**	1000		606-20-2	02
AN	**1,3-Dinitrobenzene (DNB)**	**<1000**	**ug/kg**	1000		99-65-0	02
AN	**2,4-Dinitrotoluene**	**<1000**	**ug/kg**	1000		121-14-2	02
AN	**2-Amino-4,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		35572-78-2	02
AN	**4-Amino-2,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		1946-51-0	02
AN	**HMX**	**<1000**	**ug/kg**	1000		2691-41-0	02
AN	**Nitrobenzene**	**<1000**	**ug/kg**	1000		98-95-3	02
AN	**2-Nitrotoluene**	**<1000**	**ug/kg**	1000		88-72-2	02
AN	**3-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-08-1	02
AN	**4-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-99-0	02
AN	**RDX**	**<1000**	**ug/kg**	1000		121-82-4	02
AN	**Tetryl**	**<1000**	**ug/kg**	1000		479-45-8	02
AN	**2,4,6-Trinitrotoluene**	**<1000**	**ug/kg**	1000		118-96-7	02

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Results

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Account **ALA4-C**

Project **455504**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

AR09-195 LHAAP-19 karnack,TX LCFA

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
129611	**B9-0-2 FT**					*Received:*	09/01/2009
	Solid	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	11:54
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1124* *QCgroup* *334832*
AN	**1,3,5 Trinitrobenzene**	**<1000**	**ug/kg**	1000		99-35-4	02
AN	**2,6 Dinitrotoluene**	**<1000**	**ug/kg**	1000		606-20-2	02
AN	**1,3-Dinitrobenzene (DNB)**	**<1000**	**ug/kg**	1000		99-65-0	02
AN	**2,4-Dinitrotoluene**	**<1000**	**ug/kg**	1000		121-14-2	02
AN	**2-Amino-4,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		35572-78-2	02
AN	**4-Amino-2,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		1946-51-0	02
AN	**HMX**	**<1000**	**ug/kg**	1000		2691-41-0	02
AN	**Nitrobenzene**	**<1000**	**ug/kg**	1000		98-95-3	02
AN	**2-Nitrotoluene**	**<1000**	**ug/kg**	1000		88-72-2	02
AN	**3-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-08-1	02
AN	**4-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-99-0	02
AN	**RDX**	**<1000**	**ug/kg**	1000		121-82-4	02
AN	**Tetryl**	**<1000**	**ug/kg**	1000		479-45-8	02
AN	**2,4,6-Trinitrotoluene**	**<1000**	**ug/kg**	1000		118-96-7	02
129612	**B9 14-15**					*Received:*	09/01/2009
	Solid	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	11:54
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1158* *QCgroup* *334832*
AN	**1,3,5 Trinitrobenzene**	**<1000**	**ug/kg**	1000		99-35-4	02
AN	**2,6 Dinitrotoluene**	**<1000**	**ug/kg**	1000		606-20-2	02
AN	**1,3-Dinitrobenzene (DNB)**	**<1000**	**ug/kg**	1000		99-65-0	02
AN	**2,4-Dinitrotoluene**	**<1000**	**ug/kg**	1000		121-14-2	02
AN	**2-Amino-4,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		35572-78-2	02
AN	**4-Amino-2,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		1946-51-0	02
AN	**HMX**	**<1000**	**ug/kg**	1000		2691-41-0	02
AN	**Nitrobenzene**	**<1000**	**ug/kg**	1000		98-95-3	02
AN	**2-Nitrotoluene**	**<1000**	**ug/kg**	1000		88-72-2	02
AN	**3-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-08-1	02
AN	**4-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-99-0	02
AN	**RDX**	**<1000**	**ug/kg**	1000		121-82-4	02
AN	**Tetryl**	**<1000**	**ug/kg**	1000		479-45-8	02
AN	**2,4,6-Trinitrotoluene**	**<1000**	**ug/kg**	1000		118-96-7	02

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Results

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Project **455504**

Report To

Greg Osuna
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10843 Gulfdale
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AR09-195 LHAAP-19 karnack,TX LCFA

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
129613	**B1 1-2 FT**					*Received:*	09/01/2009
	Solid	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	16:22
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1232* *QCgroup* *334832*
AN	1,3,5 Trinitrobenzene	<1000	ug/kg	1000		99-35-4	02
AN	2,6 Dinitrotoluene	<1000	ug/kg	1000		606-20-2	02
AN	1,3-Dinitrobenzene (DNB)	<1000	ug/kg	1000		99-65-0	02
AN	2,4-Dinitrotoluene	<1000	ug/kg	1000		121-14-2	02
AN	2-Amino-4,6-dinitrotoluene	<1000	ug/kg	1000		35572-78-2	02
AN	4-Amino-2,6-dinitrotoluene	<1000	ug/kg	1000		1946-51-0	02
AN	HMX	<1000	ug/kg	1000		2691-41-0	02
AN	Nitrobenzene	<1000	ug/kg	1000		98-95-3	02
AN	2-Nitrotoluene	<1000	ug/kg	1000		88-72-2	02
AN	3-Nitrotoluene	<1000	ug/kg	1000		99-08-1	02
AN	4-Nitrotoluene	<1000	ug/kg	1000		99-99-0	02
AN	RDX	<1000	ug/kg	1000		121-82-4	02
AN	Tetryl	<1000	ug/kg	1000		479-45-8	02
AN	2,4,6-Trinitrotoluene	<1000	ug/kg	1000		118-96-7	02
129614	**B1 13-14**					*Received:*	09/01/2009
	Solid	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	16:32
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1306* *QCgroup* *334832*
AN	1,3,5 Trinitrobenzene	<1000	ug/kg	1000		99-35-4	03
AN	2,6 Dinitrotoluene	<1000	ug/kg	1000		606-20-2	03
AN	1,3-Dinitrobenzene (DNB)	<1000	ug/kg	1000		99-65-0	03
AN	2,4-Dinitrotoluene	<1000	ug/kg	1000		121-14-2	03
AN	2-Amino-4,6-dinitrotoluene	<1000	ug/kg	1000		35572-78-2	03
AN	4-Amino-2,6-dinitrotoluene	<1000	ug/kg	1000		1946-51-0	03
AN	HMX	<1000	ug/kg	1000		2691-41-0	03
AN	Nitrobenzene	<1000	ug/kg	1000		98-95-3	03
AN	2-Nitrotoluene	<1000	ug/kg	1000		88-72-2	03
AN	3-Nitrotoluene	<1000	ug/kg	1000		99-08-1	03
AN	4-Nitrotoluene	<1000	ug/kg	1000		99-99-0	03
AN	RDX	<1000	ug/kg	1000		121-82-4	03
AN	Tetryl	<1000	ug/kg	1000		479-45-8	03
AN	2,4,6-Trinitrotoluene	<1000	ug/kg	1000		118-96-7	03

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AR09-195 LHAAP-19 karnack,TX LCFA

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
129615	**B3 0-1**					*Received:*	09/01/2009
	Solid	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	16:55
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1339*
						QCgroup	*334832*
AN	**1,3,5 Trinitrobenzene**	**<1000**	**ug/kg**	1000		99-35-4	02
AN	**2,6 Dinitrotoluene**	**<1000**	**ug/kg**	1000		606-20-2	02
AN	**1,3-Dinitrobenzene (DNB)**	**<1000**	**ug/kg**	1000		99-65-0	02
AN	**2,4-Dinitrotoluene**	**<1000**	**ug/kg**	1000		121-14-2	02
AN	**2-Amino-4,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		35572-78-2	02
AN	**4-Amino-2,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		1946-51-0	02
AN	**HMX**	**<1000**	**ug/kg**	1000		2691-41-0	02
AN	**Nitrobenzene**	**<1000**	**ug/kg**	1000		98-95-3	02
AN	**2-Nitrotoluene**	**<1000**	**ug/kg**	1000		88-72-2	02
AN	**3-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-08-1	02
AN	**4-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-99-0	02
AN	**RDX**	**<1000**	**ug/kg**	1000		121-82-4	02
AN	**Tetryl**	**<1000**	**ug/kg**	1000		479-45-8	02
AN	**2,4,6-Trinitrotoluene**	**<1000**	**ug/kg**	1000		118-96-7	02
129616	**B3 14-15**					*Received:*	09/01/2009
	Solid	*Collected by:*	Client	*Affiliation:*	RCG Texas	08/31/2009	17:08
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1413*
						QCgroup	*334832*
AN	**1,3,5 Trinitrobenzene**	**<1000**	**ug/kg**	1000		99-35-4	02
AN	**2,6 Dinitrotoluene**	**<1000**	**ug/kg**	1000		606-20-2	02
AN	**1,3-Dinitrobenzene (DNB)**	**<1000**	**ug/kg**	1000		99-65-0	02
AN	**2,4-Dinitrotoluene**	**<1000**	**ug/kg**	1000		121-14-2	02
AN	**2-Amino-4,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		35572-78-2	02
AN	**4-Amino-2,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		1946-51-0	02
AN	**HMX**	**<1000**	**ug/kg**	1000		2691-41-0	02
AN	**Nitrobenzene**	**<1000**	**ug/kg**	1000		98-95-3	02
AN	**2-Nitrotoluene**	**<1000**	**ug/kg**	1000		88-72-2	02
AN	**3-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-08-1	02
AN	**4-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-99-0	02
AN	**RDX**	**<1000**	**ug/kg**	1000		121-82-4	02
AN	**Tetryl**	**<1000**	**ug/kg**	1000		479-45-8	02
AN	**2,4,6-Trinitrotoluene**	**<1000**	**ug/kg**	1000		118-96-7	02

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Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
129617	**B4 3-3.5**					*Received:*	09/01/2009
	Solid	*Collected by:*	Client	*Affiliation:*	RCG Texas	09/01/2009	10:23
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1447* *QCgroup* *334832*
AN	**1,3,5 Trinitrobenzene**	**<1000**	**ug/kg**	1000		99-35-4	02
AN	**2,6 Dinitrotoluene**	**<1000**	**ug/kg**	1000		606-20-2	02
AN	**1,3-Dinitrobenzene (DNB)**	**<1000**	**ug/kg**	1000		99-65-0	02
AN	**2,4-Dinitrotoluene**	**<1000**	**ug/kg**	1000		121-14-2	02
AN	**2-Amino-4,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		35572-78-2	02
AN	**4-Amino-2,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		1946-51-0	02
AN	**HMX**	**<1000**	**ug/kg**	1000		2691-41-0	02
AN	**Nitrobenzene**	**<1000**	**ug/kg**	1000		98-95-3	02
AN	**2-Nitrotoluene**	**<1000**	**ug/kg**	1000		88-72-2	02
AN	**3-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-08-1	02
AN	**4-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-99-0	02
AN	**RDX**	**<1000**	**ug/kg**	1000		121-82-4	02
AN	**Tetryl**	**<1000**	**ug/kg**	1000		479-45-8	02
AN	**2,4,6-Trinitrotoluene**	**<1000**	**ug/kg**	1000		118-96-7	02
129618	**B4 13-14**					*Received:*	09/01/2009
	Solid	*Collected by:*	Client	*Affiliation:*	RCG Texas	09/01/2009	10:53
	Bottle ID B-4 13.5-14						
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1521* *QCgroup* *334832*
AN	**1,3,5 Trinitrobenzene**	**<1000**	**ug/kg**	1000		99-35-4	02
AN	**2,6 Dinitrotoluene**	**<1000**	**ug/kg**	1000		606-20-2	02
AN	**1,3-Dinitrobenzene (DNB)**	**<1000**	**ug/kg**	1000		99-65-0	02
AN	**2,4-Dinitrotoluene**	**<1000**	**ug/kg**	1000		121-14-2	02
AN	**2-Amino-4,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		35572-78-2	02
AN	**4-Amino-2,6-dinitrotoluene**	**<1000**	**ug/kg**	1000		1946-51-0	02
AN	**HMX**	**<1000**	**ug/kg**	1000		2691-41-0	02
AN	**Nitrobenzene**	**<1000**	**ug/kg**	1000		98-95-3	02
AN	**2-Nitrotoluene**	**<1000**	**ug/kg**	1000		88-72-2	02
AN	**3-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-08-1	02
AN	**4-Nitrotoluene**	**<1000**	**ug/kg**	1000		99-99-0	02
AN	**RDX**	**<1000**	**ug/kg**	1000		121-82-4	02
AN	**Tetryl**	**<1000**	**ug/kg**	1000		479-45-8	02
AN	**2,4,6-Trinitrotoluene**	**<1000**	**ug/kg**	1000		118-96-7	02

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Results

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Account **ALA4-C**

Project **455504**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

AR09-195 LHAAP-19 karnack,TX LCFA

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
129619	**B2 0.5-1.0**					*Received:*	09/01/2009
	Solid	*Collected by:*	Client	*Affiliation:*	RCG Texas	09/01/2009	12:36
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1628* *QCgroup* *334832*
AN	1,3,5 Trinitrobenzene	<1000	ug/kg	1000		99-35-4	02
AN	2,6 Dinitrotoluene	<1000	ug/kg	1000		606-20-2	02
AN	1,3-Dinitrobenzene (DNB)	<1000	ug/kg	1000		99-65-0	02
AN	2,4-Dinitrotoluene	<1000	ug/kg	1000		121-14-2	02
AN	2-Amino-4,6-dinitrotoluene	<1000	ug/kg	1000		35572-78-2	02
AN	4-Amino-2,6-dinitrotoluene	<1000	ug/kg	1000		1946-51-0	02
AN	HMX	<1000	ug/kg	1000		2691-41-0	02
AN	Nitrobenzene	<1000	ug/kg	1000		98-95-3	02
AN	2-Nitrotoluene	<1000	ug/kg	1000		88-72-2	02
AN	3-Nitrotoluene	<1000	ug/kg	1000		99-08-1	02
AN	4-Nitrotoluene	<1000	ug/kg	1000		99-99-0	02
AN	RDX	<1000	ug/kg	1000		121-82-4	02
AN	Tetryl	<1000	ug/kg	1000		479-45-8	02
AN	2,4,6-Trinitrotoluene	<1000	ug/kg	1000		118-96-7	02
129620	**B2 21-21.5**					*Received:*	09/01/2009
	Solid	*Collected by:*	Client	*Affiliation:*	RCG Texas	09/01/2009	12:15
	Bottle ID B2 21-22.5						
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1702* *QCgroup* *334832*
AN	1,3,5 Trinitrobenzene	<1000	ug/kg	1000		99-35-4	02
AN	2,6 Dinitrotoluene	<1000	ug/kg	1000		606-20-2	02
AN	1,3-Dinitrobenzene (DNB)	<1000	ug/kg	1000		99-65-0	02
AN	2,4-Dinitrotoluene	<1000	ug/kg	1000		121-14-2	02
AN	2-Amino-4,6-dinitrotoluene	<1000	ug/kg	1000		35572-78-2	02
AN	4-Amino-2,6-dinitrotoluene	<1000	ug/kg	1000		1946-51-0	02
AN	HMX	<1000	ug/kg	1000		2691-41-0	02
AN	Nitrobenzene	<1000	ug/kg	1000		98-95-3	02
AN	2-Nitrotoluene	<1000	ug/kg	1000		88-72-2	02
AN	3-Nitrotoluene	<1000	ug/kg	1000		99-08-1	02
AN	4-Nitrotoluene	<1000	ug/kg	1000		99-99-0	02
AN	RDX	<1000	ug/kg	1000		121-82-4	02
AN	Tetryl	<1000	ug/kg	1000		479-45-8	02
AN	2,4,6-Trinitrotoluene	<1000	ug/kg	1000		118-96-7	02

Sample Preparation

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Results

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Account **ALA4-C**

Project **455504**

Report To

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Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

AR09-195 LHAAP-19 karnack,TX LCFA

Sample Preparation

129609 **B7 0-1 FT** *Received:* 09/01/2009

			Analyzed:	*KAT*	*09/01/2009*			
	Bottle Temperature on Receipt	**2**	**degrees**					01
	SW8330		*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup*	*333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*1017*		
AN	**Explosives Expansion Code**	**Confirm**						02

129610 **B7 14-15** *Received:* 09/01/2009

			Analyzed:	*KAT*	*09/01/2009*			
	Bottle Temperature on Receipt	**2**	**degrees**					01
	SW8330		*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup*	*333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*1051*		
AN	**Explosives Expansion Code**	**Confirm**						02

129611 **B9-0-2 FT** *Received:* 09/01/2009

			Analyzed:	*KAT*	*09/01/2009*			
	Bottle Temperature on Receipt	**3**	**degrees**					01
	SW8330		*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup*	*333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*1124*		
AN	**Explosives Expansion Code**	**Confirm**						02

129612 **B9 14-15** *Received:* 09/01/2009

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Project: 455504

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

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Sample Preparation

129612 **B9 14-15** Received: 09/01/2009

			Analyzed:	KAT	09/01/2009			
	Bottle Temperature on Receipt	3	degrees					01
	SW8330		Analyzed:	TRP	09/08/2009	1000	QCgroup	333588
AN	Explosives Extraction: Solid	10/2	grams					01
	SW-846 8330		Analyzed:	KLB	09/16/2009	1158		
AN	Explosives Expansion Code	Confirm						02

129613 **B1 1-2 FT** Received: 09/01/2009

			Analyzed:	KAT	09/01/2009			
	Bottle Temperature on Receipt	4	degrees					01
	SW8330		Analyzed:	TRP	09/08/2009	1000	QCgroup	333588
AN	Explosives Extraction: Solid	10/2	grams					01
	SW-846 8330		Analyzed:	KLB	09/16/2009	1232		
AN	Explosives Expansion Code	Confirm						02

129614 **B1 13-14** Received: 09/01/2009

			Analyzed:	KAT	09/01/2009			
	Bottle Temperature on Receipt	7	degrees					01
	Bottle Temperature on Receipt	5	degrees					02
	SW8330		Analyzed:	TRP	09/08/2009	1000	QCgroup	333588
AN	Explosives Extraction: Solid	10/2	grams					01
	SW-846 8330		Analyzed:	KLB	09/16/2009	1306		
AN	Explosives Expansion Code	Confirm						02

129615 **B3 0-1** Received: 09/01/2009

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Account **ALA4-C**

Project **455504**

Report To

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Alamo Environmental
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San Antonio, TX 78205-

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Sample Preparation

129615 **B3 0-1** *Received:* 09/01/2009

				Analyzed:	*KAT*	*09/01/2009*		
z	**Bottle pH**	**<2**	**SU**					01
	Bottle Temperature on Receipt	**6**	**degrees**					01
	SW8330			*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup* *333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1339*	
AN	**Explosives Expansion Code**	**Confirm**						02

129616 **B3 14-15** *Received:* 09/01/2009

				Analyzed:	*KAT*	*09/01/2009*		
	Bottle Temperature on Receipt	**2**	**degrees**					01
	SW8330			*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup* *333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1413*	
AN	**Explosives Expansion Code**	**Confirm**						02

129617 **B4 3-3.5** *Received:* 09/01/2009

				Analyzed:	*KAT*	*09/01/2009*		
	Bottle Temperature on Receipt	**3**	**degrees**					01
	SW8330			*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup* *333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1447*	
AN	**Explosives Expansion Code**	**Confirm**						02

129618 **B4 13-14** *Received:* 09/01/2009

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Account **ALA4-C**

Project **455504**

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Alamo Environmental
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Sample Preparation

129618 **B4 13-14** *Received:* 09/01/2009

			Analyzed:	*KAT*	*09/01/2009*			
	Bottle Temperature on Receipt	**5**	**degrees**					01
	SW8330		*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup*	*333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*1521*		
AN	**Explosives Expansion Code**	**Confirm**						02

129619 **B2 0.5-1.0** *Received:* 09/01/2009

			Analyzed:	*KAT*	*09/01/2009*			
	Bottle Temperature on Receipt	**2**	**degrees**					01
	SW8330		*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup*	*333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*1628*		
AN	**Explosives Expansion Code**	**Confirm**						02

129620 **B2 21-21.5** *Received:* 09/01/2009

			Analyzed:	*KAT*	*09/01/2009*			
	Bottle Temperature on Receipt	**6**	**degrees**					01
	SW8330		*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup*	*333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*1702*		
AN	**Explosives Expansion Code**	**Confirm**						02

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Results

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09/22/2009

Account	*Project*
ALA4-C	**455504**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

AR09-195 LHAAP-19 karnack,TX LCFA

Qualifiers:

We report results on an 'As Received' or wet basis unless marked 'Dry Weight'. Unless otherwise noted, testing was performed at Ana-lab's corporate laboratory that holds the following Federal and State certificates: Texas Department of Health Lead Firm Certificate 2110076, EPA National Lead Laboratory Accreditation Program #637.01, US Department of Agriculture Soil Import Permit S-37592, Texas Commisson on Environmental Quality Drinking Water Laboratory Certificate TX219, Texas Commission on Environmental Quality NELAP T104704201-06-TX, Oklahoma Department of Environmental Quality Drinking Water Certification Lab ID# D9913, EPA Lab Number TX00063, USEPA Approved Perchlorate Testing Lab, Oklahoma Department of Environmental Quality Laboratory Certificate 8125, Arkansas Department of Environmental Quality Certification #03-070-0, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) # LA030020, US Department of Energy Approved, State of Kansas Department of Health and Environment Waste Water and Solid/Hazardous Waste Cert. E-10365, Alabama Department of Environmental Management Drinking Water #41540. Ana-Lab is also accredited to the international ISO-17025 standard by the American Association for Laboratory Accreditation (A2LA Certificate # 0637-01). The Accredited column designates accreditation by U - UCMR2 (EPA), A -- A2LA, N -- NELAC, or z -- not covered under A2LA or NELAC scope of accreditation.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of Ana-Lab Corp. Unless otherwise specified, these test results meet the requirements of NELAC.
RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number.

C. H. Whiteside, Ph.D., President

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

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Quality Control

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Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Project 455504

334832 **O** **Solid** **SW-846 8330**

Blank

Parameter	*PrepSet*	*Reading*	*MDL*	*MQL*	*Units*	*Out*	*File*
1,3,5 Trinitrobenzene	333588	ND	38.2	100	ug/kg		0011244138
1,3-Dinitrobenzene (DNB)	333588	ND	49.1	100	ug/kg		0011244138
2,4,6-Trinitrotoluene	333588	ND	125	100	ug/kg		0011244138
2,4-Dinitrotoluene	333588	ND	89.3	100	ug/kg		0011244138
2,6 Dinitrotoluene	333588	ND	107	100	ug/kg		0011244138
2-Amino-4,6-dinitrotoluene	333588	ND	81.2	100	ug/kg		0011244138
2-Nitrotoluene	333588	ND	118	100	ug/kg		0011244138
3-Nitrotoluene	333588	ND	75.3	100	ug/kg		0011244138
4-Amino-2,6-dinitrotoluene	333588	ND	241	100	ug/kg		0011244138
4-Nitrotoluene	333588	ND	70.2	100	ug/kg		0011244138
HMX	333588	ND	93.5	100	ug/kg		0011244138
Nitrobenzene	333588	ND	85.3	100	ug/kg		0011244138
RDX	333588	ND	92.1	100	ug/kg		0011244138
Tetryl	333588	ND	84.1	100	ug/kg		0011244138

CCV

Parameter	*Reading*	*Known*	*Units*	*Recover%*	*Limits%*	*Out*	*File*
1,3,5 Trinitrobenzene	1210	1000	ug/kg	121	70.0 - 130		0011244150
1,3-Dinitrobenzene (DNB)	1180	1000	ug/kg	118	70.0 - 130		0011244150
2,4,6-Trinitrotoluene	1160	1000	ug/kg	116	70.0 - 130		0011244150
2,4-Dinitrotoluene	1340	1000	ug/kg	134	70.0 - 130	*	0011244150
2,6 Dinitrotoluene	1020	1000	ug/kg	102	70.0 - 130		0011244150
2-Amino-4,6-dinitrotoluene	1230	1000	ug/kg	123	70.0 - 130		0011244150
2-Nitrotoluene	1170	1000	ug/kg	117	70.0 - 130		0011244150
3-Nitrotoluene	1160	1000	ug/kg	116	70.0 - 130		0011244150
4-Amino-2,6-dinitrotoluene	1270	1000	ug/kg	127	70.0 - 130		0011244150
4-Nitrotoluene	1180	1000	ug/kg	118	70.0 - 130		0011244150
HMX	1160	1000	ug/kg	116	70.0 - 130		0011244150
Nitrobenzene	1210	1000	ug/kg	121	70.0 - 130		0011244150
RDX	1120	1000	ug/kg	112	70.0 - 130		0011244150
Tetryl	1140	1000	ug/kg	114	70.0 - 130		0011244150
1,3,5 Trinitrobenzene	550	500	ug/kg	110	70.0 - 130		0011244137
1,3,5 Trinitrobenzene	591	500	ug/kg	118	70.0 - 130		0011244163
1,3-Dinitrobenzene (DNB)	540	500	ug/kg	108	70.0 - 130		0011244137
1,3-Dinitrobenzene (DNB)	551	500	ug/kg	110	70.0 - 130		0011244163
2,4,6-Trinitrotoluene	446	500	ug/kg	89.2	70.0 - 130		0011244163
2,4,6-Trinitrotoluene	505	500	ug/kg	101	70.0 - 130		0011244137
2,4-Dinitrotoluene	526	500	ug/kg	105	70.0 - 130		0011244137

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Quality Control

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Report To

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10843 Gulfdale
San Antonio, TX 78205-

Project 455504

334832 **O** **Solid** **SW-846 8330**

CCV

Parameter	*Reading*	*Known*	*Units*	*Recover%*	*Limits%*	*Out*	*File*
2,4-Dinitrotoluene	664	500	ug/kg	133	70.0 - 130	*	0011244163
2,6 Dinitrotoluene	398	500	ug/kg	79.6	70.0 - 130		0011244163
2,6 Dinitrotoluene	538	500	ug/kg	108	70.0 - 130		0011244137
2-Amino-4,6-dinitrotoluene	523	500	ug/kg	105	70.0 - 130		0011244137
2-Amino-4,6-dinitrotoluene	598	500	ug/kg	120	70.0 - 130		0011244163
2-Nitrotoluene	499	500	ug/kg	99.8	70.0 - 130		0011244137
2-Nitrotoluene	538	500	ug/kg	108	70.0 - 130		0011244163
3-Nitrotoluene	513	500	ug/kg	103	70.0 - 130		0011244137
3-Nitrotoluene	564	500	ug/kg	113	70.0 - 130		0011244163
4-Amino-2,6-dinitrotoluene	538	500	ug/kg	108	70.0 - 130		0011244137
4-Amino-2,6-dinitrotoluene	680	500	ug/kg	136	70.0 - 130	*	0011244163
4-Nitrotoluene	500	500	ug/kg	100	70.0 - 130		0011244137
4-Nitrotoluene	569	500	ug/kg	114	70.0 - 130		0011244163
HMX	531	500	ug/kg	106	70.0 - 130		0011244163
HMX	550	500	ug/kg	110	70.0 - 130		0011244137
Nitrobenzene	519	500	ug/kg	104	70.0 - 130		0011244137
Nitrobenzene	565	500	ug/kg	113	70.0 - 130		0011244163
RDX	505	500	ug/kg	101	70.0 - 130		0011244137
RDX	516	500	ug/kg	103	70.0 - 130		0011244163
Tetryl	525	500	ug/kg	105	70.0 - 130		0011244137
Tetryl	589	500	ug/kg	118	70.0 - 130		0011244163

LCS

Parameter	*PrepSet*	*Reading*	*Known*	*Units*	*Recover%*	*Limits*	*File*	*Out*
1,3,5 Trinitrobenzene	333588	579	500	ug/kg	116	70.0 - 130	0011244139	
1,3-Dinitrobenzene (DNB)	333588	602	500	ug/kg	120	70.0 - 130	0011244139	
2,4,6-Trinitrotoluene	333588	594	500	ug/kg	119	60.0 - 130	0011244139	
2,4-Dinitrotoluene	333588	598	500	ug/kg	120	70.0 - 130	0011244139	
2,6 Dinitrotoluene	333588	600	500	ug/kg	120	70.0 - 130	0011244139	
2-Amino-4,6-dinitrotoluene	333588	567	500	ug/kg	113	70.0 - 130	0011244139	
2-Nitrotoluene	333588	624	500	ug/kg	125	70.0 - 130	0011244139	
3-Nitrotoluene	333588	571	500	ug/kg	114	70.0 - 130	0011244139	
4-Amino-2,6-dinitrotoluene	333588	606	500	ug/kg	121	70.0 - 130	0011244139	
4-Nitrotoluene	333588	533	500	ug/kg	107	70.0 - 130	0011244139	
HMX	333588	628	500	ug/kg	126	70.0 - 130	0011244139	
Nitrobenzene	333588	543	500	ug/kg	109	70.0 - 130	0011244139	
RDX	333588	796	500	ug/kg	159	70.0 - 130	0011244139	*
Tetryl	333588	540	500	ug/kg	108	70.0 - 130	0011244139	

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Quality Control

Printed 09/22/2009 Page 3 of 3

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Project 455504

334832 **O** **Solid** **SW-846 8330**

MS

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
1,3,5 Trinitrobenzene	130228	1190	1170	0	1000	70.0 - 130	119	117	ug/kg	1.69	30.0
1,3-Dinitrobenzene (DNB)	130228	1180	1160	0	1000	70.0 - 130	118	116	ug/kg	1.71	30.0
2,4,6-Trinitrotoluene	130228	1270	1260	0	1000	70.0 - 130	127	126	ug/kg	0.791	30.0
2,4-Dinitrotoluene	130228	1410	1400	0	1000	70.0 - 130	141 *	140 *	ug/kg	0.712	30.0
2,6 Dinitrotoluene	130228	894	861	0	1000	70.0 - 130	89.4	86.1	ug/kg	3.76	30.0
2-Amino-4,6-dinitrotoluene	130228	1240	1210	0	1000	70.0 - 130	124	121	ug/kg	2.45	30.0
2-Nitrotoluene	130228	1160	1150	0	1000	70.0 - 130	116	115	ug/kg	0.866	30.0
3-Nitrotoluene	130228	1200	1210	0	1000	70.0 - 135	120	121	ug/kg	0.830	30.0
4-Amino-2,6-dinitrotoluene	130228	1220	1170	0	1000	70.0 - 130	122	117	ug/kg	4.18	30.0
4-Nitrotoluene	130228	1200	1210	0	1000	70.0 - 130	120	121	ug/kg	0.830	30.0
HMX	130228	1100	1030	0	1000	70.0 - 130	110	103	ug/kg	6.57	30.0
Nitrobenzene	130228	1190	1170	0	1000	70.0 - 130	119	117	ug/kg	1.69	30.0
RDX	130228	991	957	0	1000	70.0 - 130	99.1	95.7	ug/kg	3.49	30.0
Tetryl	130228	1250	1260	0	1000	70.0 - 130	125	126	ug/kg	0.797	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
3,4-DNT	129609	UNKNOWN	5510	5000	ug/kg	110	70.0 - 130	0011244140
3,4-DNT	129610	UNKNOWN	5400	5000	ug/kg	108	70.0 - 130	0011244141
3,4-DNT	129611	UNKNOWN	5820	5000	ug/kg	116	70.0 - 130	0011244142
3,4-DNT	129612	UNKNOWN	5910	5000	ug/kg	118	70.0 - 130	0011244143
3,4-DNT	129613	UNKNOWN	5830	5000	ug/kg	117	70.0 - 130	0011244144
3,4-DNT	129614	UNKNOWN	5870	5000	ug/kg	117	70.0 - 130	0011244145
3,4-DNT	129615	UNKNOWN	5770	5000	ug/kg	115	70.0 - 130	0011244146
3,4-DNT	129616	UNKNOWN	5900	5000	ug/kg	118	70.0 - 130	0011244147
3,4-DNT	129617	UNKNOWN	5740	5000	ug/kg	115	70.0 - 130	0011244148
3,4-DNT	129618	UNKNOWN	5650	5000	ug/kg	113	70.0 - 130	0011244149
3,4-DNT	129619	UNKNOWN	5610	5000	ug/kg	112	70.0 - 130	0011244151
3,4-DNT	129620	UNKNOWN	5750	5000	ug/kg	115	70.0 - 130	0011244152
3,4-DNT	130228	UNKNOWN	5540	5000	ug/kg	111	70.0 - 130	0011244153
3,4-DNT	333588	Blank	557	500	ug/kg	111	70.0 - 130	0011244138
3,4-DNT	333588	LCS	714	500	ug/kg	143 *	70.0 - 130	0011244139
3,4-DNT	CCV 10	CCV	1220	1000	ug/kg	122	70.0 - 130	0011244150
3,4-DNT	CCV 50	CCV	518	500	ug/kg	104	70.0 - 130	0011244137
3,4-DNT	CCV 50	CCV	544	500	ug/kg	109	70.0 - 130	0011244163

RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

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Chain of Custody

08/26/2009 Page 1 of 2

Report To

Phyllis Primrose
RCG Texas
2101 Colston Drive
Tyler, TX 75703

5126949326

RCGT

104

Lab Number LHAAP-19 Karnack TX

Phone 512/694-9326
Fax

LFCA

Accredited	Test	Name	Method
		Explosives Soil TRRP	

Matrix: Solid

Sampler Printed Name Phyllis Primrose *Sampler Affiliation* RCG *Sampler Signature*

*Glass 4 oz w/Teflon lined lid

AN !EXP Explosives Expansion Code SW-846 8330

Ana-Lab #	Sample ID	Bottles	Date	Time	Notes
129609	B7 0-1 FT	~~2~~ 1	8/31/09	1033	
610	B7 14-15FT	1	8/31/09	1123	
611	B9 - 0-2 FT	1	"	1154	
612	B9 14-15	1	"	1154	
613	B1 1-2FT	1	8/31/09	1622	
614	B1 13-14	2	8/31/09	1632	MS/MSD
615	B3 0-1	1	8/31/09	1655	
616	B3 14-15	1	8/31/09	1708	
617	B4 3-3.5	1	9/1/09	1023	
618	B4 13-14	1	9/1/09	1053	
619	B2 0.5-1.0	1	9/1/09	~~1215~~ 1236	
620	B2 21-21.5	1	9/1/09	1215	

Ambient Conditions/Comments
Send Invoice to Alamo Environmental. Project Number AR09-195

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Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com LELAP-accredited #02008

Chain of Custody

08/26/2009 Page 2 of 2

RCGT

104

Lab Number

Report To

Phyllis Primrose
RCG Texas
2101 Colston Drive
Tyler, TX 75703

Phone 512/694-9326
Fax

Explosives Soil TRRP

Accredited	Test	Name	Method

Date	Time	Relinquished	Received
9/1/09	1545	Printed Name Phyllis Primrose Affiliation RCG Signature	Printed Name Jeff Tjoelker Affiliation ETL Signature
9/1/09	1723	Printed Name Jeff Tjoelker Affiliation ETL Signature	Printed Name Gayle Gardner Affiliation Ana-Lab Signature
		Printed Name Affiliation Signature	Printed Name Affiliation Signature
		Printed Name Affiliation Signature	Printed Name Affiliation Signature

Sample Recieved on Ice? ☑ Yes ☐ No **Method of Shipment:** ☐ UPS ☐ Bus ☐ FedEx ☐ Lone Star ☑ Hand Delivered ☐ Other

Cooler/Sample Secure? ☑ Yes ☐ No **Tracking/Shipping #**

The accredited column designates accreditation by A - A2LA, N - NELAC, or z - not covered under A2LA or NELAC scope of accreditation.

Comments

003689 ☐
003233 ☑
003532 ☐ <1°C
003688 ☐

YAHOO! SMALL BUSINESS

Re: Fw: LHAAP19: SQLs exceed project requirements P:455504 Thursday, January 14, 2010 3:58 PM

From: "tvarvel" <tvarvel@ana-lab.com>
To: "Phyllis Primrose" <phyllis@rcgtex.com>
17 Files (3635KB)

334832_r... 334832_r... 333588_r... 334832_r... 334832_r... 334832_r... 334832_r... 334832_r...
334832_r... 334832_r... 334832_r... 334832_r... 334832_r... 334832_r... 334832_r... 334832_r...
334832_r...

Phyllis,

Here is the raw data for project 455504. Project 455502 only reported perchlorates.

Thanks,

Tracey Varvel
Assistant Manager - Quality Assurance
Ana-Lab Corporation
903-984-0551

/The information in this email is confidential and may be legally privileged. It is intended solely for the addressee. Access to this email by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution or any action taken or omitted to be taken in reliance on it, is prohibited and may be unlawful./

Phyllis Primrose wrote:
> Tracey-
> Thank you. I was concerned because I had not received an email confirming receipt of my e-mails.
> Phyllis
> *RCG*
> *2101 Colston Drive*
> *Tyler, TX 75703
> 512.694.9326

> www.rcgtex.com <http://www.rcgtex.com/>
> *
> //
> /Geoscientific work or services discussed herein are preliminary (DRAFT) and released for interim review under the authority of Phyllis Primrose, P.G. #2586. Any other use of this information without written consent from Phyllis Primrose is prohibited./
>
>
> --- On *Thu, 1/14/10, tvarvel /<tvarvel@ana-lab.com>/* wrote:
>
>
> From: tvarvel <tvarvel@ana-lab.com>
> Subject: Re: Fw: LHAAP19: SQLs exceed project requirements
> To: "Phyllis Primrose" <phyllis@rcgtex.com>
> Date: Thursday, January 14, 2010, 12:06 PM
>
> Phyllis,
>
> I apologize for not responding sooner. I am waiting for a
> response from our organics department. I will try to have this
> too you just after lunch.
>
> Thanks,
>
> Tracey Varvel
> Assistant Manager - Quality Assurance
> Ana-Lab Corporation
> 903-984-0551
>
> /The information in this email is confidential and may be legally
> privileged. It is intended solely for the addressee. Access to
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> action taken or omitted to be taken in reliance on it, is
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>
>
>
>
> Phyllis Primrose wrote:
> > Ana-lab,
> > I am again requesting a response to my previous e-mails. _Would someone please contact me to verify the progress of the
> response? _I will need revised EDDs and revised, signed lab
> reports that summarize ANY changes to the original report.
> > Please reference the attached files regarding the elevated SQLs
> as well as the required format for EDDs.
> > Phyllis
> > *RCG*
> > *2101 Colston Drive*
> > *Tyler, TX 75703
> > 512.694.9326
> > www.rcgtex.com <http://www.rcgtex.com/>

> > *
> > //
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> >
> >
> > --- On *Tue, 1/12/10, Phyllis Primrose /<phyllis@rcgtex.com
> <http://us.mc561.mail.yahoo.com/mc/compose?to=phyllis@rcgtex.com>>/*
> wrote:
> >
> >
> > From: Phyllis Primrose <phyllis@rcgtex.com
> <http://us.mc561.mail.yahoo.com/mc/compose?to=phyllis@rcgtex.com>>
> > Subject: Fw: LHAAP19: SQLs exceed project requirements
> > To: "Tracey Arvel" <tvarvel@ana-lab.com
> <http://us.mc561.mail.yahoo.com/mc/compose?to=tvarvel@ana-lab.com>>
> > Date: Tuesday, January 12, 2010, 5:24 PM
> >
> > Tracey-
> > I don't recall receiving a response from you regarding the
> > following e-mail. Please confirm receipt of this e-mail and the
> > status of the response.
> > Thanks,
> > Phyllis
> > *RCG*
> > *2101 Colston Drive*
> > *Tyler, TX 75703
> > 512.694.9326
> > www.rcgtex.com <http://www.rcgtex.com/>
> > *
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> >
> >
> > --- On *Mon, 12/28/09, Phyllis Primrose /<phyllis@rcgtex.com
> <http://us.mc561.mail.yahoo.com/mc/compose?to=phyllis@rcgtex.com>>/*
> wrote:
> >
> >
> > From: Phyllis Primrose <phyllis@rcgtex.com
> <http://us.mc561.mail.yahoo.com/mc/compose?to=phyllis@rcgtex.com>>
> > Subject: Fw: LHAAP19: SQLs exceed project requirements
> > To: "Tracey Arvel" <tvarvel@ana-lab.com
> <http://us.mc561.mail.yahoo.com/mc/compose?to=tvarvel@ana-lab.com>>
> > Date: Monday, December 28, 2009, 1:38 PM
> >
> > Tracey-
> > Here is the original email. I need a response

> from AnaLab for
> > the following analytes in SOIL:
> > 1,2 DNB
> > 2-Amino-4,6 DNT
> > 4-Amino-2,6 DNT
> > RDX
> > The issues are described in the Summary and
> Conclusion
> > columns. The main issue is that the SQLs were higher
> than the
> > regualoratory standard. I need supporting documentation
> that
> > each analyte is not present in the sample (review associated
> > chromatographs and MDLs) or that the most sensitive method
> > available was used.
> > Please contact me if you have any questions.
> > Phyllis
> > *RCG*
> > *2101 Colston Drive*
> > *Tyler, TX 75703
> > 512.694.9326
> > www.rcgtex.com <http://www.rcgtex.com/>
> > *
> > //
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> > authority of Phyllis Primrose, P.G. #2586. Any other use of
> > this information without written consent from Phyllis
> Primrose
> > is prohibited./
> >
> >
> > --- On *Mon, 12/21/09, Phyllis Primrose
> > /<phyllis@rcgtex.com
> <http://us.mc561.mail.yahoo.com/mc/compose?to=phyllis@rcgtex.com>>/*
> wrote:
> >
> >
> > From: Phyllis Primrose <phyllis@rcgtex.com
> <http://us.mc561.mail.yahoo.com/mc/compose?to=phyllis@rcgtex.com>>
> > Subject: LHAAP19: SQLs exceed project requirements
> > To: "Reddy" <reddy@alamoanalytical.com
> <http://us.mc561.mail.yahoo.com/mc/compose?to=reddy@alamoanalytical.com>>,
> "Greg Oliver"
> > <goliver@ana-lab.com
> <http://us.mc561.mail.yahoo.com/mc/compose?to=goliver@ana-lab.com>>
> > Cc: "Daniel Hooton" <daniel@ana-lab.com
> <http://us.mc561.mail.yahoo.com/mc/compose?to=daniel@ana-lab.com>>
> > Date: Monday, December 21, 2009, 12:13 PM
> >
> > Dr. Gosala and Mr. Oliver,
> > I have reviewed the analytical data for

> the Longhorn Army
> > Ammunition Plant. Some of the SQLs for non-detected
> > chemicals exceeded the project requirements (in other
> > words the SQL is higher than the regulatory limit). Tables 9 and 10 identify the
chemicals where I was not
> > able to justify the SQLs with available data in
> accordance
> > with TCEQ guidance documents (Consistency Memo and
> > TRRP-13). These chemicals are identified as
> "pending" in
> > the "standard attained" column.
> > I have attached soil and groundwater
> data summaries for
> > these chemicals. Please review the data for your
> > respective laboratory. I need each of you to provide
> > documentation that supports your lab has met the project
> > criteria. This includes:
> > 1) was the most sensitive method
> available was used,
> > 2) is the chemical likely to be present above the
> project
> > criteria (highlighted in yellow);
> > 3) what actions the lab took to meet the TCEQ
> Consistency
> > Memo and TRRP-13;
> > 4) what actions would be needed, if any, to meet the
> > project criteria.
> > The documentation you submit needs to
> be in a format that
> > can be included in the assessment report and
> submitted to
> > the TCEQ for review.
> > Please let me know if you have any
> questions. Phyllis
> > *RCG*
> > *2101 Colston Drive*
> > *Tyler, TX 75703
> > 512.694.9326
> > www.rcgtex.com <http://www.rcgtex.com/>
> > *
> > //
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> > preliminary (DRAFT) and released for interim review
> under
> > the authority of Phyllis Primrose, P.G. #2586. Any other
> > use of this information without written consent from
> > Phyllis Primrose is prohibited./
> >
>

Extraction Code EXPS Date/Time/Tech 09.08.09/1000/TRP

Surrogate Lot # C10050	LCS/Spike Lot # C10965
Extraction Solvent Lot # C10584	Exchange Solvent # –
Acid Lot # –	Base Lot # –
Sodium Sulfate Lot # –	Sand Lot # –
Silicic Acid Lot # –	Diazomethane Lot # –
Balance # 2370	Other NaCl C11059

Sample ID	New Bot #	Sonicator # 2978	Sonicator # 3330	Sample Volume Initial (g)	Sample Volume Final (mLs)	Comments
B0908G1	–			2g	10	EXPS: 333588
LCS0908G1	–					
129609-01	02					
129610-01						
129611-01						
129612-01						
129613-01						
129614-01	03					
129615-01	02					
129616-01						
129617-01						
129618-01						
129619-01						
129620-01						
130228-01	06					
130228-01 MS	07					
130228-01 MSD	08					
130230-01	04					
130231-01						
130232-01						
130233-01						
130234-01						
130235-01						
130236-01						

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Preparations

Printed 09/08/2009 16:23 Page 1 of 2

EXPS EXPS

09/08/2009 1000 TRP

333588

Sample	From	Initial g	Final ml	New BOT	Type	Description				pH	Sequence
333588		2	10		Blank	001					1.00
333588		2	10		LCS	002					2.00
333588		2	10		LCS Dup	003					3.00
129609	01	2	10	02	UNKNOWN	004 ALA4					4.00
129610	01	2	10	02	UNKNOWN	005 ALA4					5.00
129611	01	2	10	02	UNKNOWN	006 ALA4					6.00
129612	01	2	10	02	UNKNOWN	007 ALA4					7.00
129613	01	2	10	02	UNKNOWN	008 ALA4					8.00
129614	01	2	10	03	UNKNOWN	009 ALA4					9.00
129615	01	2	10	02	UNKNOWN	010 ALA4					10.00
129616	01	2	10	02	UNKNOWN	011 ALA4					11.00
129617	01	2	10	02	UNKNOWN	012 ALA4					12.00
129618	01	2	10	02	UNKNOWN	013 ALA4					13.00
129619	01	2	10	02	UNKNOWN	014 ALA4					14.00
129620	01	2	10	02	UNKNOWN	015 ALA4					15.00
130228	01	2	10	06	UNKNOWN	016 ALA4					16.00
130228	01	2	10	07	MS	017					17.00
130228	01	2	10	08	MSD	018					18.00
130230	01	2	10	04	UNKNOWN	019 ALA4					19.00

Courier Shipping: 2600 Dudley Rd. Kilgore, TX 75662

00121435

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663
Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com LELAP-accredited #02008

Preparations

Printed 09/08/2009 16:23 Page 2 of 2
EXPS EXPS

333588

09/08/2009 1000 TRP

130231	01	2	10	04	UNKNOWN	020 ALA4					20.00
130232	01	2	10	04	UNKNOWN	021 ALA4					21.00
130233	01	2	10	04	UNKNOWN	022 ALA4					22.00
130234	01	2	10	04	UNKNOWN	023 ALA4					23.00
130235	01	2	10	04	UNKNOWN	024 ALA4					24.00
130236	01	2	10	04	UNKNOWN	025 ALA4					25.00

ELP
9/8/09

Ver.
Zuy
9-10-09

Level 1 Analyst Review Checklist

Test Code: EXPS QC group: 333588

Please answer the following to the best of your knowledge.

Preparatory Tests[1]:	Yes	No	Comments
1. Is the following sample prep information correct on your bench sheet and in LDS?			
a. Bottle type	✓		
b. Bottle number	✓		
c. Holding time met	✓		
2. Were there any special sample prep requirements?		✓	
a. If so were they met?			
3. Is sample prep documentation complete on your bench sheet and in LDS?	✓		
4. Was the SOP followed?	✓		

Analysis Tests[1]:	Yes	No	Comments
1. Is the analysis data correct?			
a. Raw readings			
b. Calculations			
c. Dilution factors applied			
d. Integrations			
2. Was raw data correctly interpreted?			
3. Are the analysis results complete, i.e. all of the required documentation present?			
4. Are QC samples within established control limits?			
5. Were there any special analysis requirements?			
a. If so were they met?			

Tracy Phillips [signature] 9/8/09 1000

Printed Name Signature Date/Time

Note 1:
If your test is prep only, please complete the Preparatory Test section and write "N/A" for the Analysis Test section.
If your test is the analysis only, please N/A the Preparatory Test section and complete the Analysis Test section.
If your test includes the prep and analysis, please complete both sections.

Level 2 Peer Review

Test Code: EXPS QC group: 333588

Please answer the following to the best of your knowledge.

Prep/Analysis Tests	Yes	No	Comments
1. Was the SOP followed?	✓		
2. Was the holding time met?	✓		

Preparatory Tests[1]:	Yes	No	Comments
1. Is the following sample prep information complete and correct on your bench sheet and in LDS?			
a. Bottle type	✓		
b. Bottle number	✓		
2. Were there any special sample prep requirements?		✓	
a. If so were they met?	---	---	

Analysis Tests[1]:	Yes	No	Comments
1. If required by the analysis (SOP):			
a. Is the calibration data complete?			N/A
b. Are the appropriate calibration points used?			N/A
c. Is calibration data sound?			N/A
2. Are QC samples within established control limits?			N/A
3. Is the analysis data correct?			
a. Raw readings			N/A
b. Calculations			N/A
c. Dilution factors applied			N/A
d. Integrations			N/A
4. If needed, are the data flags appropriate?			N/A
5. Are the analysis results complete, i.e. all of the required documentation present?			N/A
6. Are the results correct?			N/A
7. Were there any special analysis requirements?			N/A
a. If so were they met?			N/A

Note 1.
If the test is prep only, please complete the Preparatory Test section and write "N/A" for the Analysis Test section.
If the test is the analysis only, please N/A the Preparatory Test section and complete the Analysis Test section.
If the test includes the prep and analysis, please complete all sections.

0 problems were found with this data set. Errors, if present are noted in the Level 2 Peer Review checklist.

Corrections, if necessary, include:

Lucie Yin — Lucie Yin — 9-10-2009/ 1312

Printed Name — Signature — Date/Time

334801

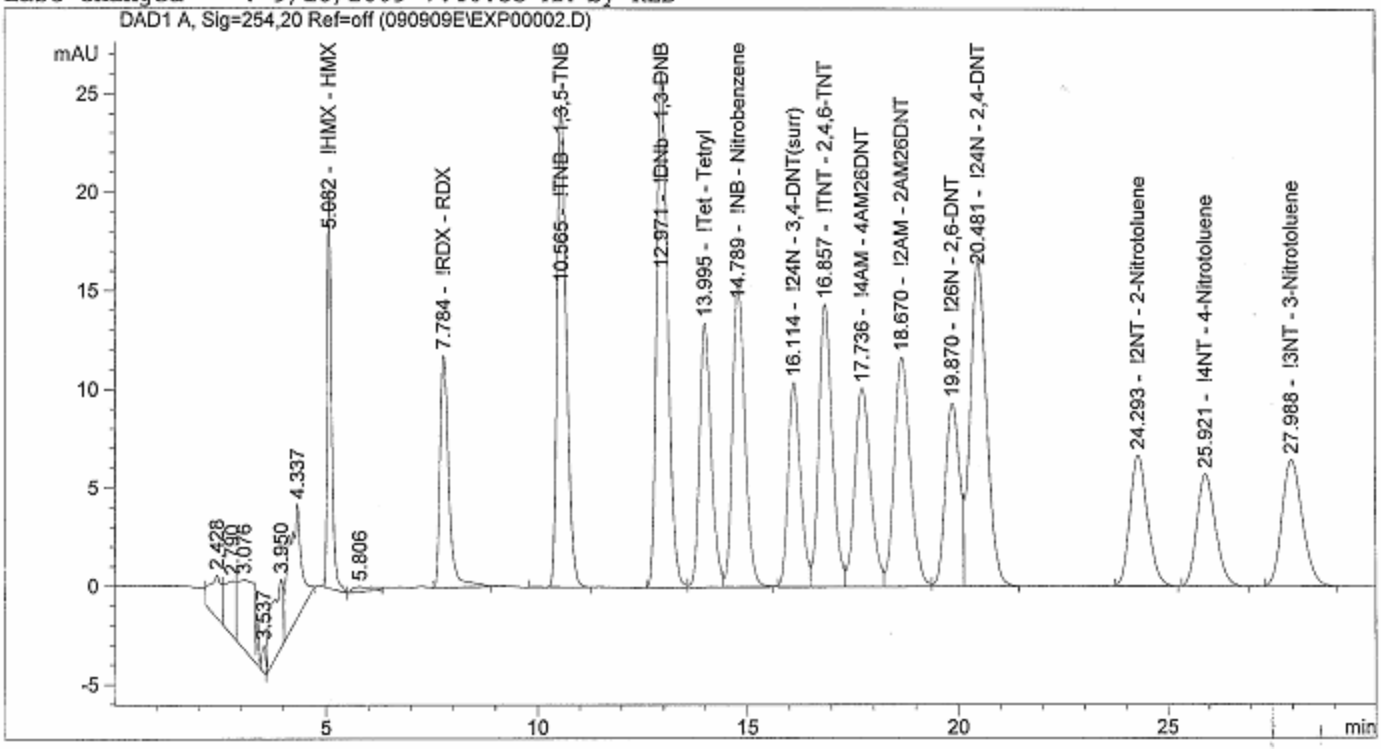
EXPLOSIVE CURVE

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00002.D Sample Name: 1000 PPB EXP

P5830EXP

==========

Injection Date : 9/9/2009 5:35:42 PM Seq. Line : 2
Sample Name : 1000 PPB EXP Location : Vial 0
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/9/2009 4:55:21 PM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 7:40:55 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.082	BP	141.90709	6.91638	981.48290		!HMX - HMX
7.784	VB	170.06126	5.77904	982.79075		!RDX - RDX
10.565	PB	373.88162	2.63449	984.98642		!TNB - 1,3,5-TNB
12.971	BV	480.18893	2.05156	985.13661		!DNb - 1,3-DNB
13.995	VV	258.07019	3.82870	988.07214		!Tet - Tetryl
14.789	VB	319.19958	3.09625	988.32212		!NB - Nitrobenzene
16.114	BV	214.74405	4.60891	989.73532		!24N - 3,4-DNT(surr)
16.857	VV	316.26599	3.12681	988.90439		!TNT - 2,4,6-TNT
17.736	VV	262.22311	3.77280	989.31530		!4AM - 4AM26DNT
18.670	VV	308.77036	3.20194	988.66533		!2AM - 2AM26DNT
19.870	VV	219.36485	4.49967	987.06986		!26N - 2,6-DNT
20.481	VB	448.50171	2.20126	987.26979		!24N - 2,4-DNT
24.293	BB	199.13847	4.92389	980.53645		!2NT - 2-Nitrotoluene

00121445

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00002.D Sample Name: 1000 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.921	BP	180.02614	5.44311	979.90242		!4NT - 4-Nitrotoluene
27.988	BB	218.10078	4.51074	983.79687		!3NT - 3-Nitrotoluene

Totals : 1.47860e4

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========
*** End of Report ***

00121447

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00003.D Sample Name: 500 PPB EXP

P5830EXP

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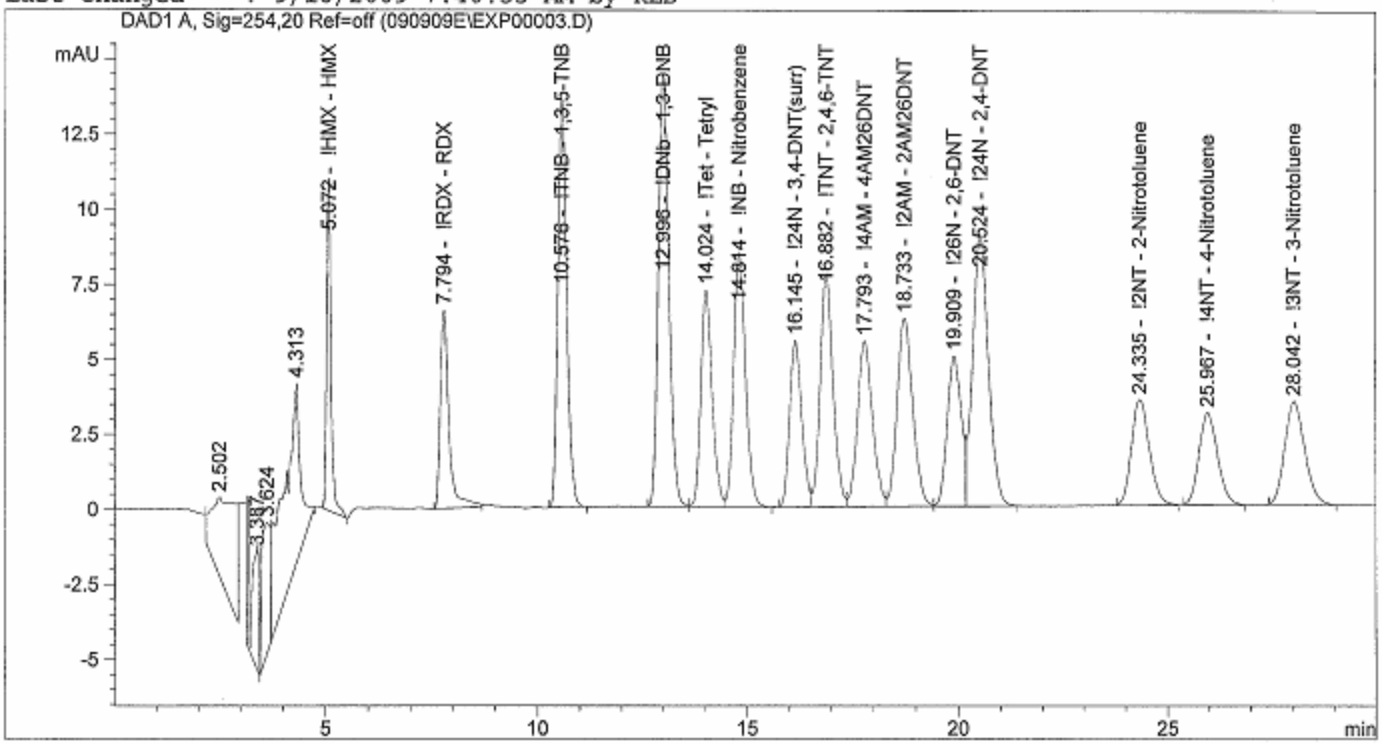
Injection Date : 9/9/2009 6:09:27 PM Seq. Line : 3
Sample Name : 500 PPB EXP Location : Vial 1
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/9/2009 4:55:21 PM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 7:40:55 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.072	BP	77.48312	6.61415	512.48488		!HMX - HMX
7.794	PB	92.82751	5.42964	504.02019		!RDX - RDX
10.576	BB	198.69781	2.56055	508.77592		!TNB - 1,3,5-TNB
12.996	BV	254.98935	1.99458	508.59790		!DNb - 1,3-DNB
14.024	VV	135.14534	3.71661	502.28308		!Tet - Tetryl
14.814	VP	166.75432	3.00730	501.48004		!NB - Nitrobenzene
16.145	BV	111.69988	4.46845	499.12500		!24N - 3,4-DNT(surr)
16.882	VV	165.36047	3.03152	501.29398		!TNT - 2,4,6-TNT
17.793	VV	136.64870	3.65736	499.77397		!4AM - 4AM26DNT
18.733	VV	161.35808	3.11035	501.87979		!2AM - 2AM26DNT
19.909	VV	115.40574	4.36661	503.93186		!26N - 2,6-DNT
20.524	VB	236.38100	2.14066	506.01177		!24N - 2,4-DNT
24.335	BB	107.32756	4.77778	512.78699		!2NT - 2-Nitrotoluene

00121449

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00003.D Sample Name: 500 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.967	BB	97.36887	5.27066	513.19830		!4NT - 4-Nitrotoluene
28.042	BB	115.35159	4.42204	510.08918		!3NT - 3-Nitrotoluene

Totals : 7585.73286

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========
*** End of Report ***

00121451

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00004.D Sample Name: 250 PPB EXP

P5830EXP

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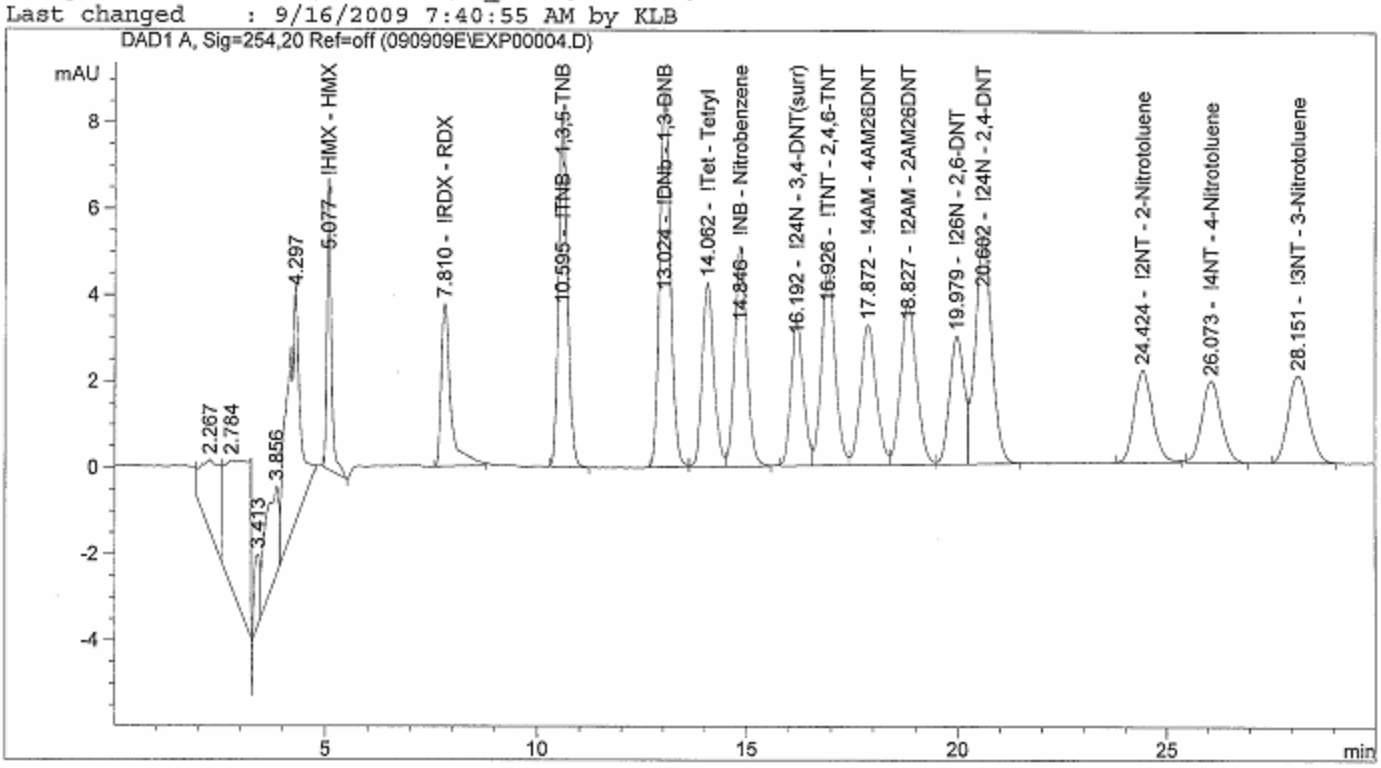
Injection Date : 9/9/2009 6:43:11 PM Seq. Line : 4
Sample Name : 250 PPB EXP Location : Vial 2
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\83300LD.M
Last changed : 9/9/2009 4:55:21 PM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\83300LD.M
Last changed : 9/16/2009 7:40:55 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.077	BP	48.60519	6.21862	302.25734		!HMX - HMX
7.810	PB	59.62284	5.00119	298.18505		!RDX - RDX
10.595	BP	121.23483	2.45973	298.20461		!TNB - 1,3,5-TNB
13.024	BV	155.45505	1.91680	297.97608		!DNb - 1,3-DNB
14.062	VV	83.21619	3.56978	297.06330		!Tet - Tetryl
14.846	VB	103.25811	2.89277	298.70152		!NB - Nitrobenzene
16.192	BV	69.06384	4.28774	296.12777		!24N - 3,4-DNT(surr)
16.926	VV	101.63210	2.90630	295.37297		!TNT - 2,4,6-TNT
17.872	VV	84.46613	3.50844	296.34463		!4AM - 4AM26DNT
18.827	VV	98.84470	2.98901	295.44782		!2AM - 2AM26DNT
19.979	VV	70.84776	4.19002	296.85377		!26N - 2,6-DNT
20.602	VB	142.97261	2.05695	294.08747		!24N - 2,4-DNT
24.424	BB	67.43701	4.59030	309.55643		!2NT - 2-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00004.D Sample Name: 250 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
26.073	BB	61.09035	5.04761	308.36050		!4NT - 4-Nitrotoluene
28.151	BB	69.58823	4.29821	299.10495		!3NT - 3-Nitrotoluene

Totals : 4483.64419

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00005.D Sample Name: 100 PPB EXP

P5830EXP

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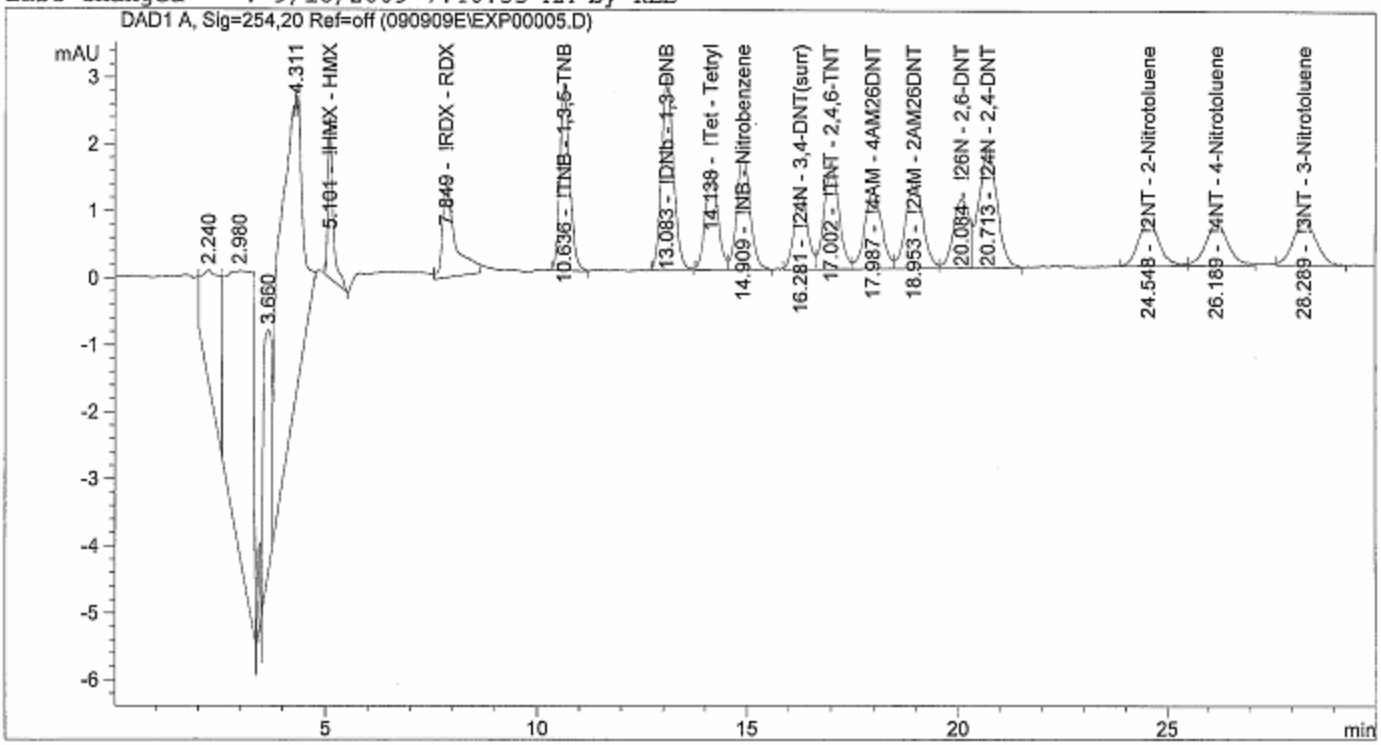
Injection Date : 9/9/2009 7:16:56 PM Seq. Line : 5
Sample Name : 100 PPB EXP Location : Vial 3
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/9/2009 4:55:21 PM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 7:40:55 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.101	BP	19.71303	4.66322	91.92614		!HMX - HMX
7.849	BB	29.76715	3.79983	113.11015		!RDX - RDX
10.636	BP	45.12463	2.02352	91.31062		!TNB - 1,3,5-TNB
13.083	BB	57.51772	1.57749	90.73357		!DNb - 1,3-DNB
14.138	BV	31.72174	2.94944	93.56139		!Tet - Tetryl
14.909	VB	37.81215	2.37216	89.69637		!NB - Nitrobenzene
16.281	BV	26.02215	3.50467	91.19913		!24N - 3,4-DNT(surr)
17.002	VV	38.59296	2.37554	91.67901		!TNT - 2,4,6-TNT
17.987	VV	32.60670	2.88821	94.17499		!4AM - 4AM26DNT
18.953	VV	37.38066	2.47403	92.48097		!2AM - 2AM26DNT
20.084	VV	27.95852	3.48842	97.53099		!26N - 2,6-DNT
20.713	VP	53.35945	1.70117	90.77375		!24N - 2,4-DNT
24.548	BB	24.58012	3.71085	91.21325		!2NT - 2-Nitrotoluene

00121457

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00005.D Sample Name: 100 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
26.189	BB	24.43767	4.14975	101.41012		!4NT - 4-Nitrotoluene
28.289	BB	26.16668	3.78028	98.91728		!3NT - 3-Nitrotoluene

Totals : 1419.71772

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

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*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00006.D Sample Name: 50 PPB EXP

P5830EXP

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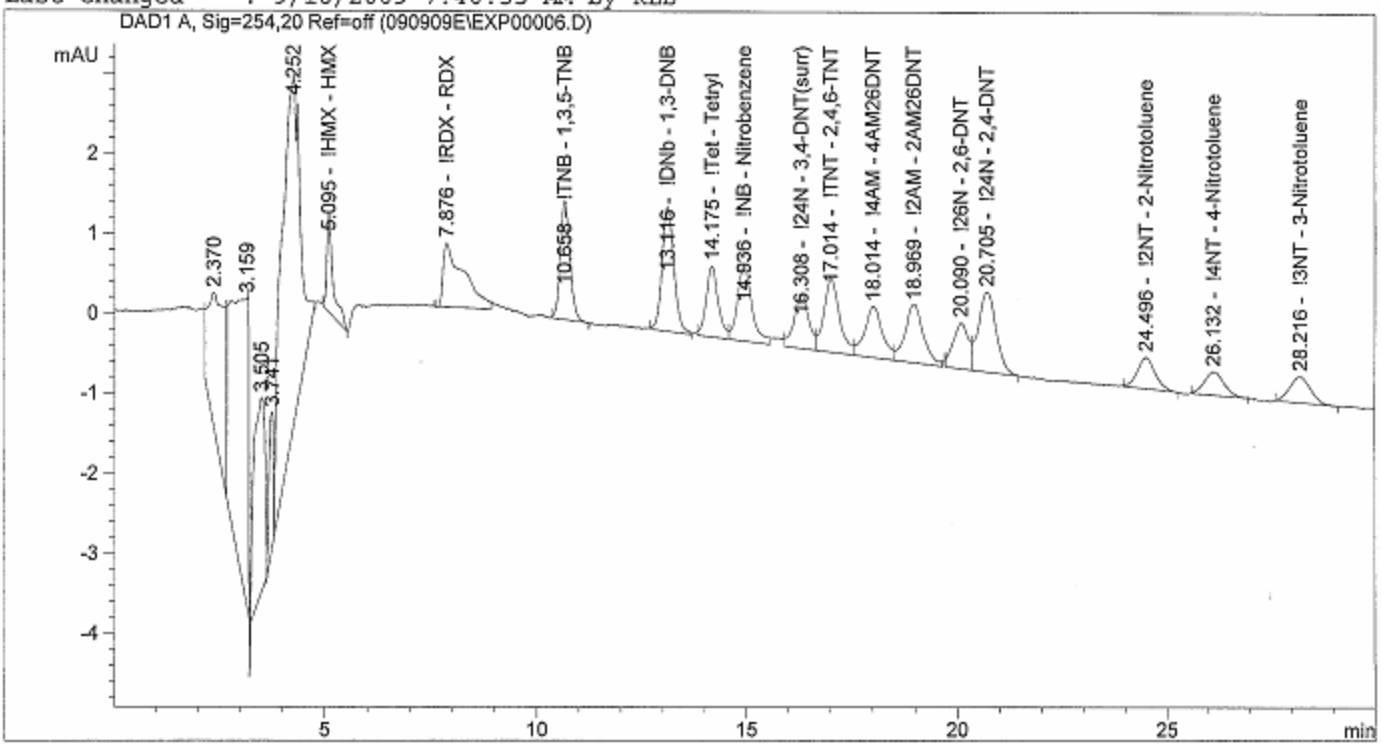
Injection Date : 9/9/2009 7:50:42 PM Seq. Line : 6
Sample Name : 50 PPB EXP Location : Vial 4
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/9/2009 4:55:21 PM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 7:40:55 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.095	BP	12.80501	3.25159	41.63665		!HMX - HMX
7.876	PB	26.98377	3.55236	95.85605		!RDX - RDX
10.658	BP	23.57433	1.38835	32.72942		!TNB - 1,3,5-TNB
13.116	BB	30.80754	1.11054	34.21288		!DNb - 1,3-DNB
14.175	BV	17.72947	2.15827	38.26506		!Tet - Tetryl
14.936	VB	22.62304	1.82067	41.18913		!NB - Nitrobenzene
16.308	BV	16.80984	2.81608	47.33781		!24N - 3,4-DNT(surr)
17.014	VV	23.85797	1.84705	44.06687		!TNT - 2,4,6-TNT
18.014	VV	18.94472	2.15970	40.91490		!4AM - 4AM26DNT
18.969	VB	21.84171	1.88484	41.16816		!2AM - 2AM26DNT
20.090	BV	14.55606	2.42130	35.24461		!26N - 2,6-DNT
20.705	VB	29.24931	1.23329	36.07282		!24N - 2,4-DNT
24.496	BP	11.65680	2.17665	25.37275		!2NT - 2-Nitrotoluene

00121461

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00006.D Sample Name: 50 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
26.132	BB	9.97963	1.98167	19.77633		!4NT - 4-Nitrotoluene
28.216	BP	11.17734	2.66714	29.81148		!3NT - 3-Nitrotoluene

Totals : 603.65493

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========
*** End of Report ***

00121463

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00007.D Sample Name: 25 PPB EXP

P5830EXP

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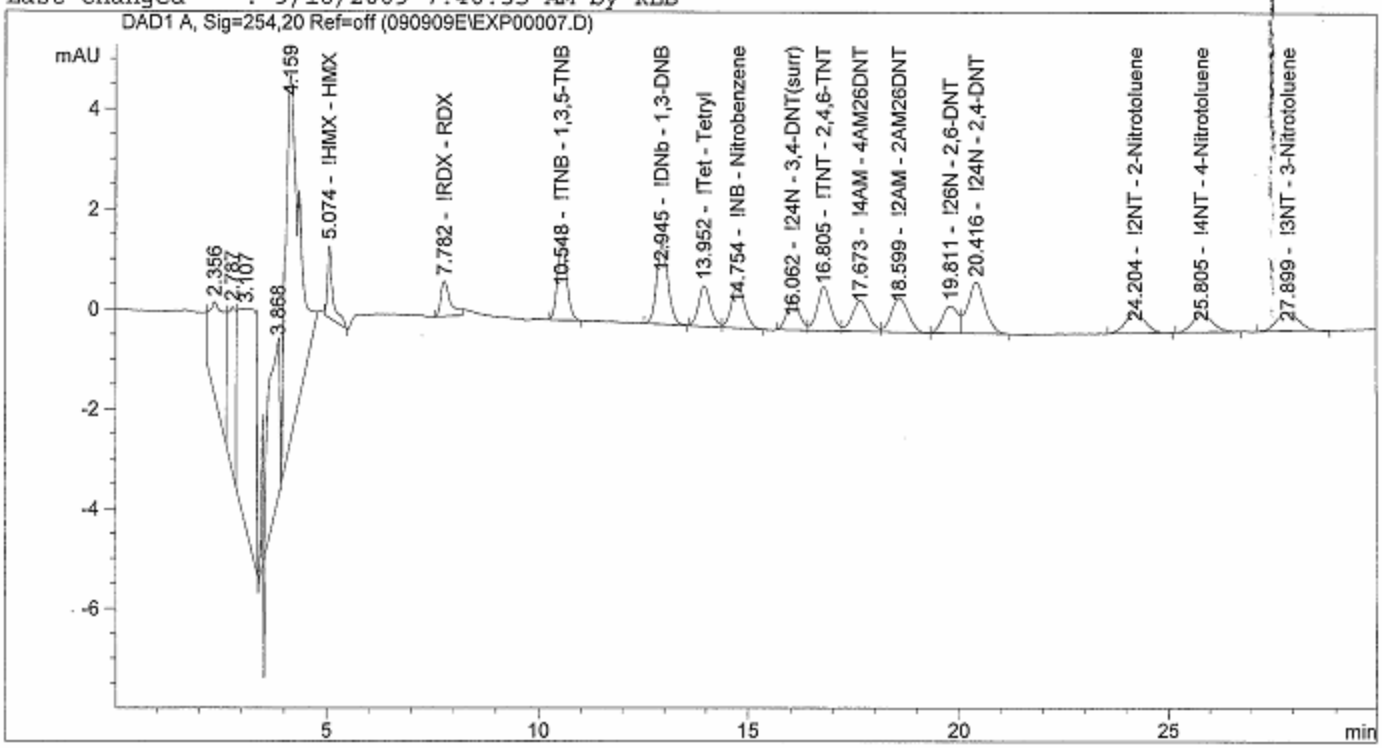
Injection Date : 9/9/2009 8:24:27 PM Seq. Line : 7
Sample Name : 25 PPB EXP Location : Vial 5
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/9/2009 8:54:23 PM by KLB
(modified after loading)
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 7:40:55 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074	BP	12.82665	3.25839	41.79420		!HMX - HMX
7.782	PB	11.10980	0.00000	0.00000		!RDX - RDX
10.548	BB	24.53720	1.44054	35.34683		!TNB - 1,3,5-TNB
12.945	BB	30.85867	1.11220	34.32108		!DNb - 1,3-DNB
13.952	BV	16.28469	1.99914	32.55540		!Tet - Tetryl
14.754	VP	19.64218	1.61233	31.66959		!NB - Nitrobenzene
16.062	BV	12.99434	2.24495	29.17158		!24N - 3,4-DNT(surr)
16.805	VV	20.03268	1.58274	31.70649		!TNT - 2,4,6-TNT
17.673	VV	16.76455	1.93359	32.41571		!4AM - 4AM26DNT
18.599	VP	18.85807	1.66059	31.31556		!2AM - 2AM26DNT
19.811	BV	13.80882	2.30084	31.77190		!26N - 2,6-DNT
20.416	VP	29.24904	1.23328	36.07222		!24N - 2,4-DNT

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00007.D Sample Name: 25 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
24.204	BB	13.45800	2.56720	34.54934		!2NT - 2-Nitrotoluene
25.805	BB	12.48523	2.71710	33.92355		!4NT - 4-Nitrotoluene
27.899	PB	13.85663	3.04287	42.16388		!3NT - 3-Nitrotoluene
Totals :				478.77735		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept), (!RDX - RDX)

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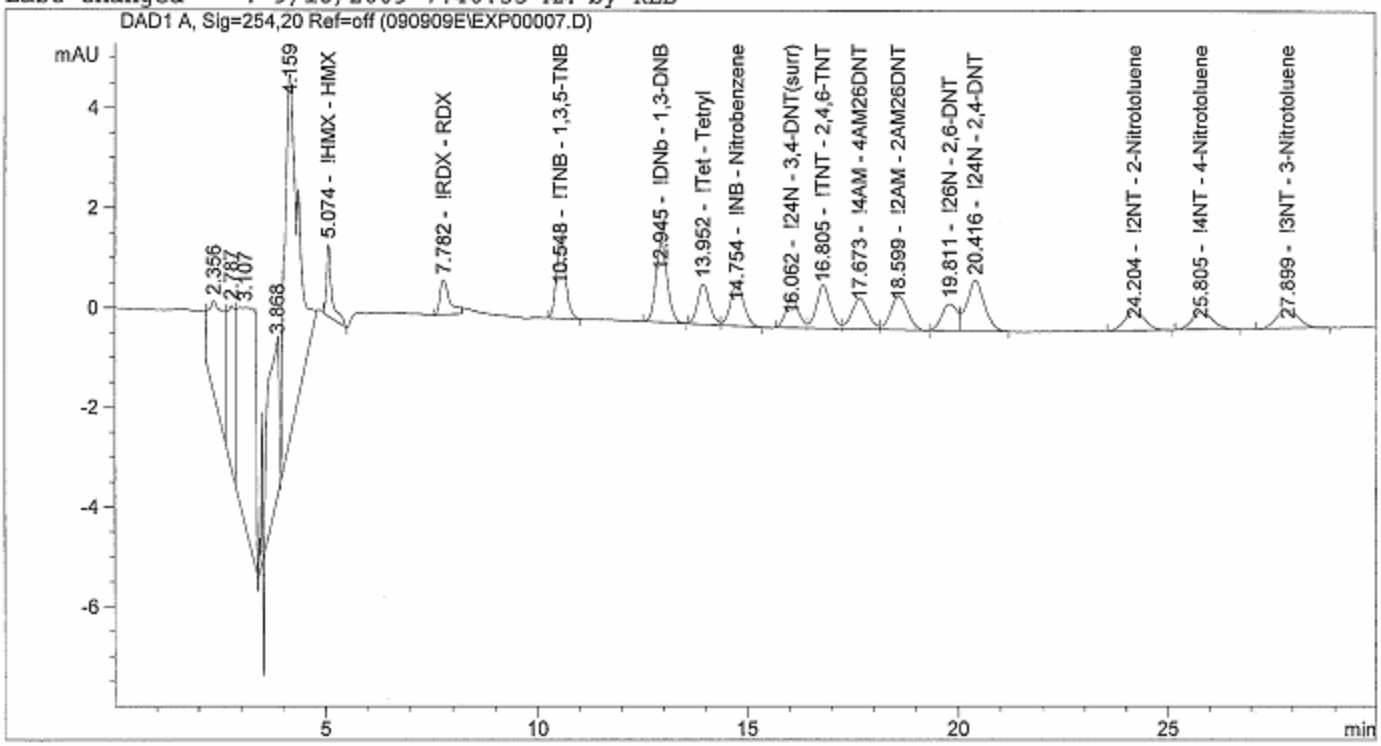
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00007.D Sample Name: 25 PPB EXP

P5830EXP

==========

Injection Date : 9/9/2009 8:24:27 PM Seq. Line : 7
Sample Name : 25 PPB EXP Location : Vial 5
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/9/2009 8:54:23 PM by KLB
(modified after loading)
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 7:40:55 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074	BP	12.82665	3.25839	41.79420		!HMX - HMX
7.782	PB	11.10980	0.00000	0.00000		!RDX - RDX
10.548	BB	24.53720	1.44054	35.34683		!TNB - 1,3,5-TNB
12.945	BB	30.85867	1.11220	34.32108		!DNb - 1,3-DNB
13.952	BV	16.28469	1.99914	32.55540		!Tet - Tetryl
14.754	VP	19.64218	1.61233	31.66959		!NB - Nitrobenzene
16.062	BV	12.99434	2.24495	29.17158		!24N - 3,4-DNT(surr)
16.805	VV	20.03268	1.58274	31.70649		!TNT - 2,4,6-TNT
17.673	VV	16.76455	1.93359	32.41571		!4AM - 4AM26DNT
18.599	VP	18.85807	1.66059	31.31556		!2AM - 2AM26DNT
19.811	BV	13.80882	2.30084	31.77190		!26N - 2,6-DNT
20.416	VP	29.24904	1.23328	36.07222		!24N - 2,4-DNT

00121469

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00007.D Sample Name: 25 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
24.204	BB	13.45800	2.56720	34.54934		!2NT - 2-Nitrotoluene
25.805	BB	12.48523	2.71710	33.92355		!4NT - 4-Nitrotoluene
27.899	PB	13.85663	3.04287	42.16388		!3NT - 3-Nitrotoluene

Totals : 478.77735

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept), (!RDX - RDX)

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*** End of Report ***

00121471

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00008.D Sample Name: 500 PPB ICV EXP

P5401EXP

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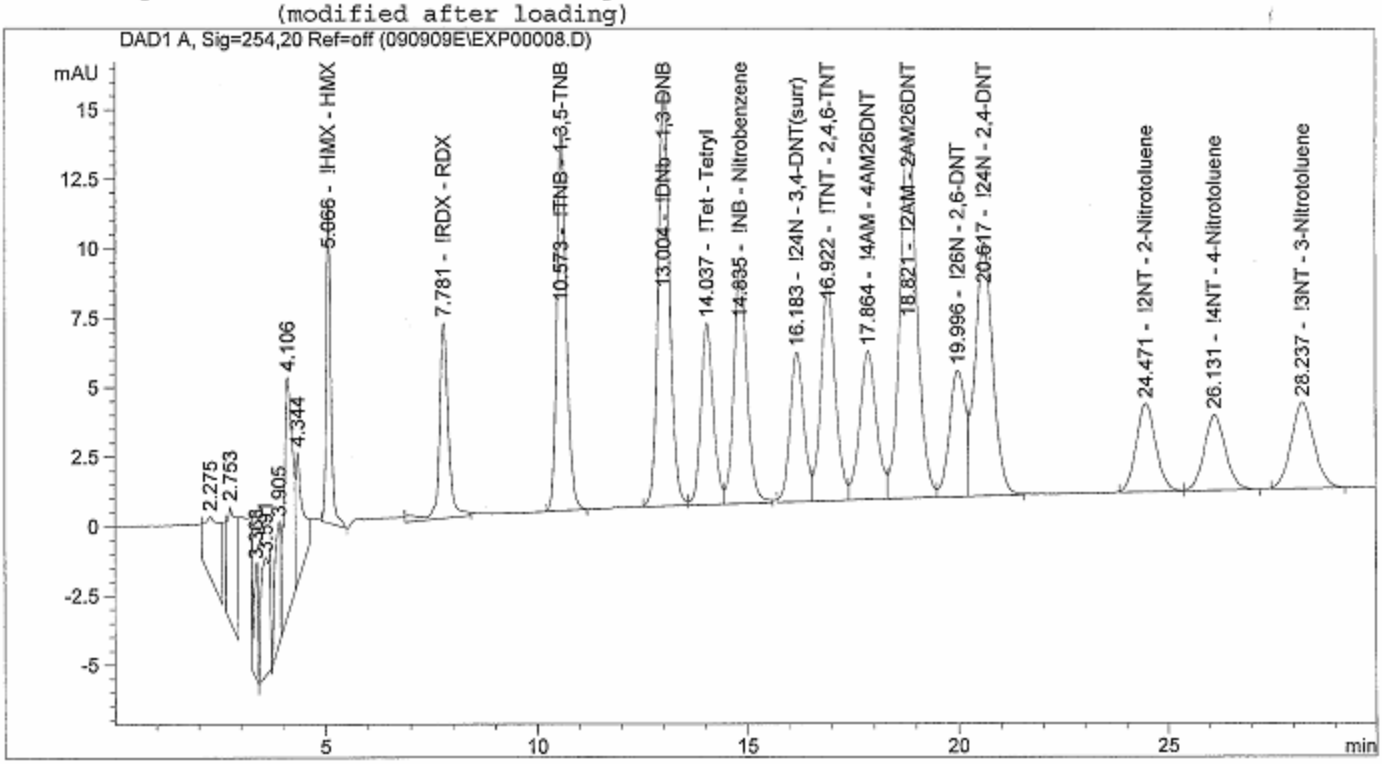
Injection Date : 9/9/2009 8:58:12 PM Seq. Line : 8
Sample Name : 500 PPB ICV EXP Location : Vial 6
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/9/2009 9:04:55 PM by KLB
(modified after loading)
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 7:44:53 AM by KLB
(modified after loading)



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.066	BP	83.37801	6.66122	555.39890		!HMX - HMX
7.781	BB	105.54620	5.52235	582.86306		!RDX - RDX
10.573	BB	216.19559	2.57332	556.34095		!TNB - 1,3,5-TNB
13.004	BV	287.61081	2.00836	577.62728		!DNb - 1,3-DNB
14.037	VV	134.52408	3.71553	499.82790		!Tet - Tetryl
14.835	VB	188.00539	3.02835	569.34646		!NB - Nitrobenzene
16.183	BV	123.04739	4.49544	553.15238		!24N - 3,4-DNT(surr)
16.922	VV	185.63054	3.05333	566.79122		!TNT - 2,4,6-TNT
17.864	VV	147.84695	3.67562	543.42944		!4AM - 4AM26DNT
18.821	VV	370.46597	3.21864	1192.39690		!2AM - 2AM26DNT
19.996	VV	120.44144	4.37835	527.33472		!26N - 2,6-DNT

00121473

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00008.D Sample Name: 500 PPB ICV EXP

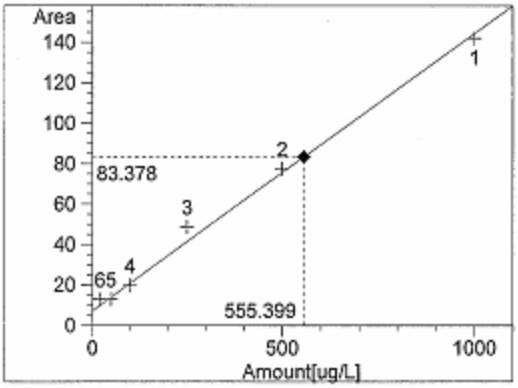
RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
20.617	VB	264.21017	2.15416	569.15042		!24N - 2,4-DNT
24.471	BB	106.01408	4.77385	506.09517		!2NT - 2-Nitrotoluene
26.131	BB	97.33338	5.27052	512.99795		!4NT - 4-Nitrotoluene
28.237	BB	117.34077	4.42523	519.25996		!3NT - 3-Nitrotoluene

Totals : 8832.01273

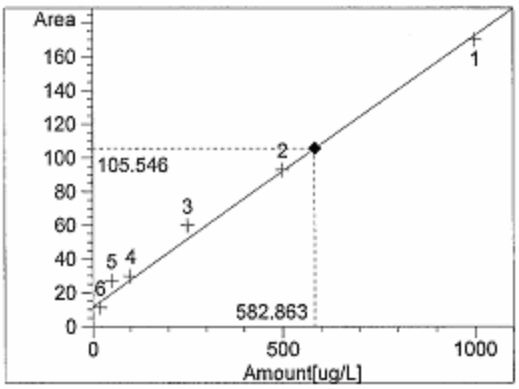
Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

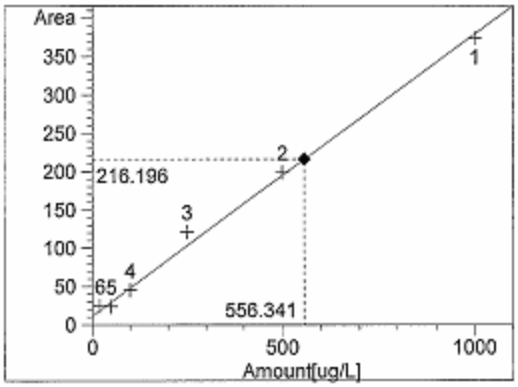
==========
==========
Calibration Curves
==========



!HMX - HMX at exp. RT: 5.074
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99596
Residual Std. Dev.: 4.95293
Formula: y = mx + b
m: 1.37365e-1
b: 7.08558
x: Amount [ug/L]
y: Area

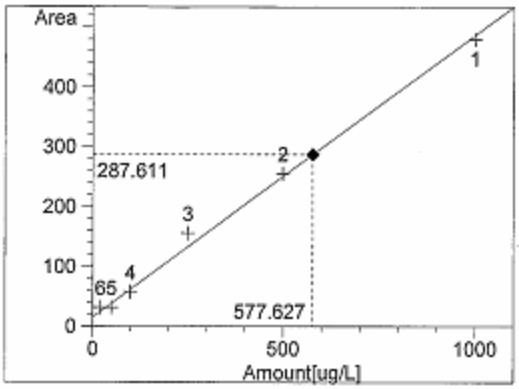


!RDX - RDX at exp. RT: 7.782
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99348
Residual Std. Dev.: 7.39856
Formula: y = mx + b
m: 1.61317e-1
b: 11.52057
x: Amount [ug/L]
y: Area

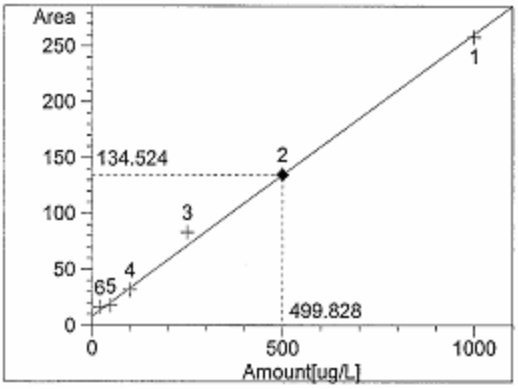


!TNB - 1,3,5-TNB at exp. RT: 10.548
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99737
Residual Std. Dev.: 10.68532
Formula: y = mx + b
m: 3.67871e-1
b: 11.53414
x: Amount [ug/L]
y: Area

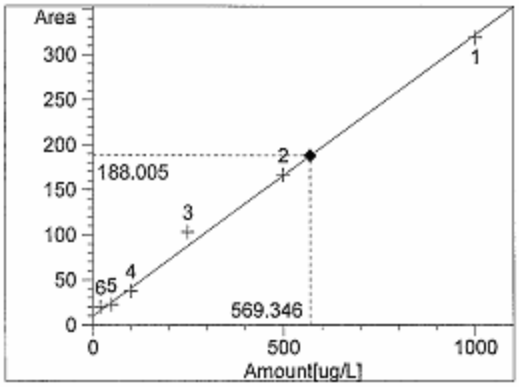
Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00008.D Sample Name: 500 PPB ICV EXP



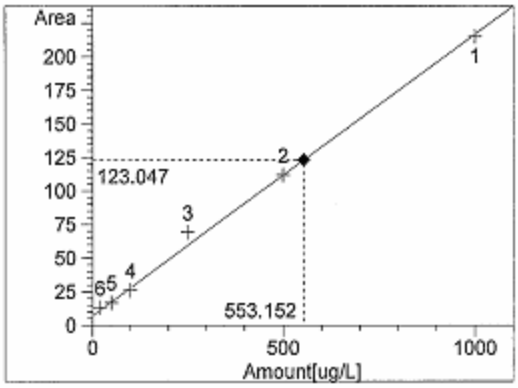
!DNb - 1,3-DNB at exp. RT: 12.945
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99745
Residual Std. Dev.: 13.52648
Formula: y = mx + b
m: 4.72574e-1
b: 14.63944
x: Amount[ug/L]
y: Area



!Tet - Tetryl at exp. RT: 13.952
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99769
Residual Std. Dev.: 6.89324
Formula: y = mx + b
m: 2.53042e-1
b: 8.04682
x: Amount[ug/L]
y: Area

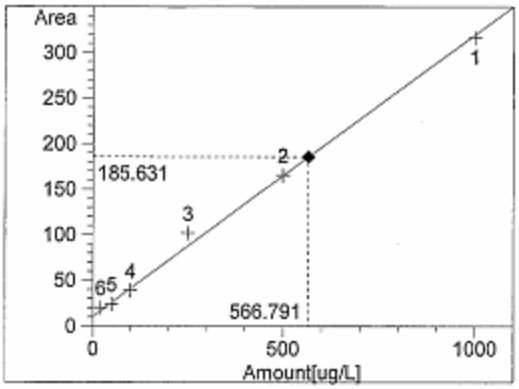


!NB - Nitrobenzene at exp. RT: 14.754
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99763
Residual Std. Dev.: 8.62677
Formula: y = mx + b
m: 3.13131e-1
b: 9.72546
x: Amount[ug/L]
y: Area

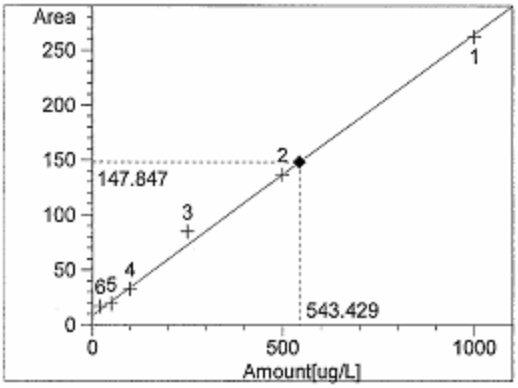


!24N - 3,4-DNT(surr) at exp. RT: 16.062
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99783
Residual Std. Dev.: 5.53437
Formula: y = mx + b
m: 2.10033e-1
b: 6.86736
x: Amount[ug/L]
y: Area

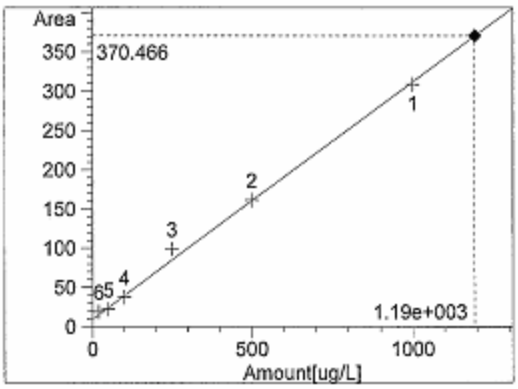
Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00008.D Sample Name: 500 PPB ICV EXP



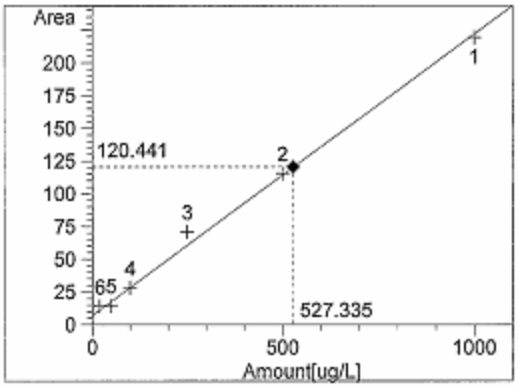
!TNT - 2,4,6-TNT at exp. RT: 16.805
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99781
Residual Std. Dev.: 8.20622
Formula: y = mx + b
m: 3.09480e-1
b: 10.22017
x: Amount [ug/L]
y: Area



!4AM - 4AM26DNT at exp. RT: 17.673
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99774
Residual Std. Dev.: 6.89987
Formula: y = mx + b
m: 2.56514e-1
b: 8.44946
x: Amount [ug/L]
y: Area

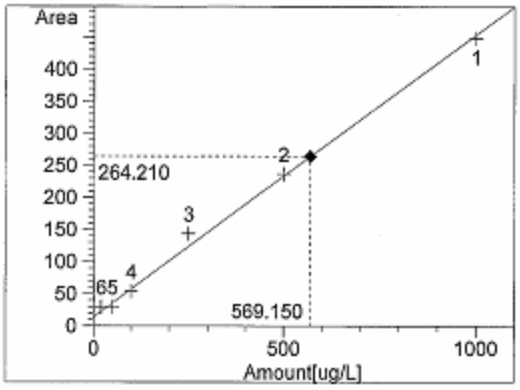


!2AM - 2AM26DNT at exp. RT: 18.599
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99787
Residual Std. Dev.: 7.91820
Formula: y = mx + b
m: 3.02828e-1
b: 9.37484
x: Amount [ug/L]
y: Area

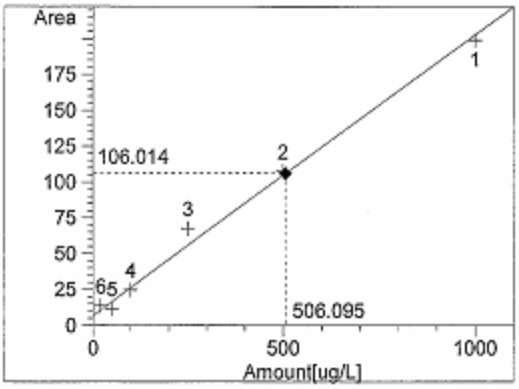


!26N - 2,6-DNT at exp. RT: 19.811
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99764
Residual Std. Dev.: 5.92436
Formula: y = mx + b
m: 2.15175e-1
b: 6.97231
x: Amount [ug/L]
y: Area

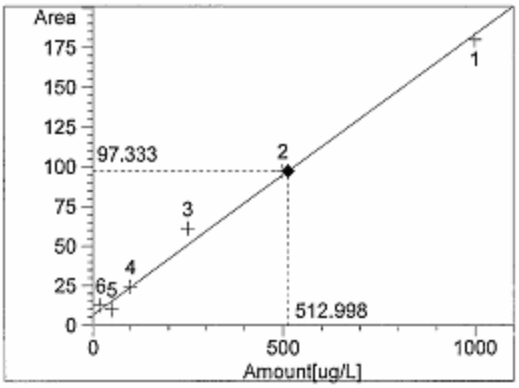
Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00008.D Sample Name: 500 PPB ICV EXP



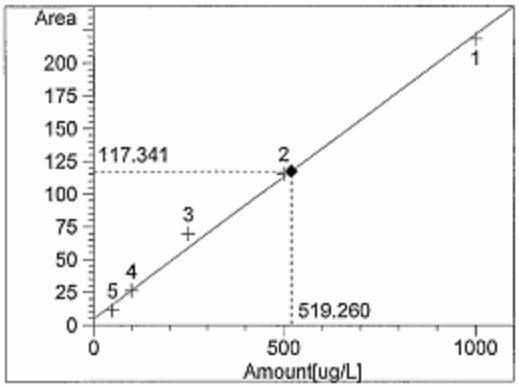
!24N - 2,4-DNT at exp. RT: 20.416
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99776
Residual Std. Dev.: 11.82143
Formula: y = mx + b
m: 4.40763e-1
b: 13.34975
x: Amount[ug/L]
y: Area



!2NT - 2-Nitrotoluene at exp. RT: 24.204
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99618
Residual Std. Dev.: 6.87926
Formula: y = mx + b
m: 1.96282e-1
b: 6.67658
x: Amount[ug/L]
y: Area



!4NT - 4-Nitrotoluene at exp. RT: 25.805
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99600
Residual Std. Dev.: 6.35167
Formula: y = mx + b
m: 1.77109e-1
b: 6.47708
x: Amount[ug/L]
y: Area



!3NT - 3-Nitrotoluene at exp. RT: 27.899
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99748
Residual Std. Dev.: 6.55765
Formula: y = mx + b
m: 2.16904e-1
b: 4.71111
x: Amount[ug/L]
y: Area

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*** End of Report ***

Sequence: C:\HPLCDATA\3M_1090\SEQUENCE\090916.S

334825

Sequence Table:

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 0	500 PPB EXP	8330OLD	1	Sample		
2	Vial 0	CCV 500 PPB EXP	8330OLD	1	Sample		

00121483

Sequence: C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S

Sequence Table:

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	333598 BLK0908	8330OLD	1	Sample		
2	Vial 2	333598 LCS	8330OLD	1	Sample		
3	Vial 3	129609-02X2	8330OLD	1	Sample		
4	Vial 4	129610-02X2	8330OLD	1	Sample		
5	Vial 5	129611-02X2	8330OLD	1	Sample		
6	Vial 6	129612-02X2	8330OLD	1	Sample		
7	Vial 7	129613-02X2	8330OLD	1	Sample		
8	Vial 8	129614-02X2	8330OLD	1	Sample		
9	Vial 9	129615-02X2	8330OLD	1	Sample		
10	Vial 10	129616-02X2	8330OLD	1	Sample		
11	Vial 11	129617-02X2	8330OLD	1	Sample		
12	Vial 12	129618-02X2	8330OLD	1	Sample		
13	Vial 13	CCV 1000 PPB EXP	8330OLD	1	Sample		
14	Vial 14	129619-07X2	8330OLD	1	Sample		
15	Vial 15	129620-02X2	8330OLD	1	Sample		
16	Vial 16	130228-06X2	8330OLD	1	Sample		
17	Vial 17	130228-07S1X2	8330OLD	1	Sample		
18	Vial 18	130228-08S2X2	8330OLD	1	Sample		
19	Vial 19	130230-06X2	8330OLD	1	Sample		
20	Vial 20	130231-06X2	8330OLD	1	Sample		
21	Vial 21	130232-06X2	8330OLD	1	Sample		
22	Vial 22	130233-06X2	8330OLD	1	Sample		
23	Vial 23	130234-06X2	8330OLD	1	Sample		
24	Vial 24	130235-06X2	8330OLD	1	Sample		
25	Vial 25	130236-06X2	8330OLD	1	Sample		
26	Vial 0	CCV 500 PPB EXP	8330OLD	1	Sample		

Level 2 Peer Review

Test Code: EXP QC group: 334832

Please answer the following to the best of your knowledge.

Prep/Analysis Tests	Yes	No	Comments
1. Was the SOP followed?	N/A		
2. Was the holding time met?	↓		

Preparatory Tests[1]:	Yes	No	Comments
1. Is the following sample prep information complete and correct on your bench sheet and in LDS?			
a. Bottle type	N/A		
b. Bottle number	↓		
2. Were there any special sample prep requirements?			
a. If so were they met?	↓		

Analysis Tests[1]:	Yes	No	Comments
1. If required by the analysis (SOP):			
a. Is the calibration data complete?			
b. Are the appropriate calibration points used?			
c. Is calibration data sound?			
2. Are QC samples within established control limits?			
3. Is the analysis data correct?			
a. Raw readings			
b. Calculations			
c. Dilution factors applied			
d. Integrations			
4. If needed, are the data flags appropriate?			
5. Are the analysis results complete, i.e. all of the required documentation present?			
6. Are the results correct?			
7. Were there any special analysis requirements?			
a. If so were they met?			

Note 1.
If the test is prep only, please complete the Preparatory Test section and write "N/A" for the Analysis Test section.
If the test is the analysis only, please N/A the Preparatory Test section and complete the Analysis Test section.
If the test includes the prep and analysis, please complete all sections.

____ problems were found with this data set. Errors, if present are noted in the Level 2 Peer Review checklist.

Corrections, if necessary, include:
LCS/LCSD Recovery > LCL - Samples ND
CCV " " " "
MS/MSD Matrix interference

Weldon H. McFarland, Ph.D. — Printed Name
WHMcFarland — Signature
9/17/09 1112 — Date/Time

C:\Documents and Settings\weldon\My Documents_Level 2 Peer Review Inst-WHM.doc
One page document

Level 1 Analyst Review Checklist

Test Code: !EXP QC group: 334832

Please answer the following to the best of your knowledge.

Preparatory Tests[1]:	Yes	No	Comments
1. Is the following sample prep information correct on your bench sheet and in LDS?			N/A
a. Bottle type			
b. Bottle number			
c. Holding time met			
2. Were there any special sample prep requirements?			
a. If so were they met?			
3. Is sample prep documentation complete on your bench sheet and in LDS?			
4. Was the SOP followed?			

Analysis Tests[1]:	Yes	No	Comments
1. Is the analysis data correct?			
a. Raw readings	✓		
b. Calculations	✓		
c. Dilution factors applied	✓		
d. Integrations	✓		
2. Was raw data correctly interpreted?	✓		
3. Are the analysis results complete, i.e. all of the required documentation present?	✓		
4. Are QC samples within established control limits?		✓	
5. Were there any special analysis requirements?		✓	
a. If so were they met?			

Kathy Brown — Signature — 9-17-09 1110

Printed Name — Signature — Date/Time

Note 1:
If your test is prep only, please complete the Preparatory Test section and write "N/A" for the Analysis Test section.
If your test is the analysis only, please N/A the Preparatory Test section and complete the Analysis Test section.
If your test includes the prep and analysis, please complete both sections.

EXPLOSIVE QC

Data File C:\HPLCDATA\3M_1090\DATA\090916\EXP00002.D Sample Name: CCV 500 PPB EXP

P5830EXP

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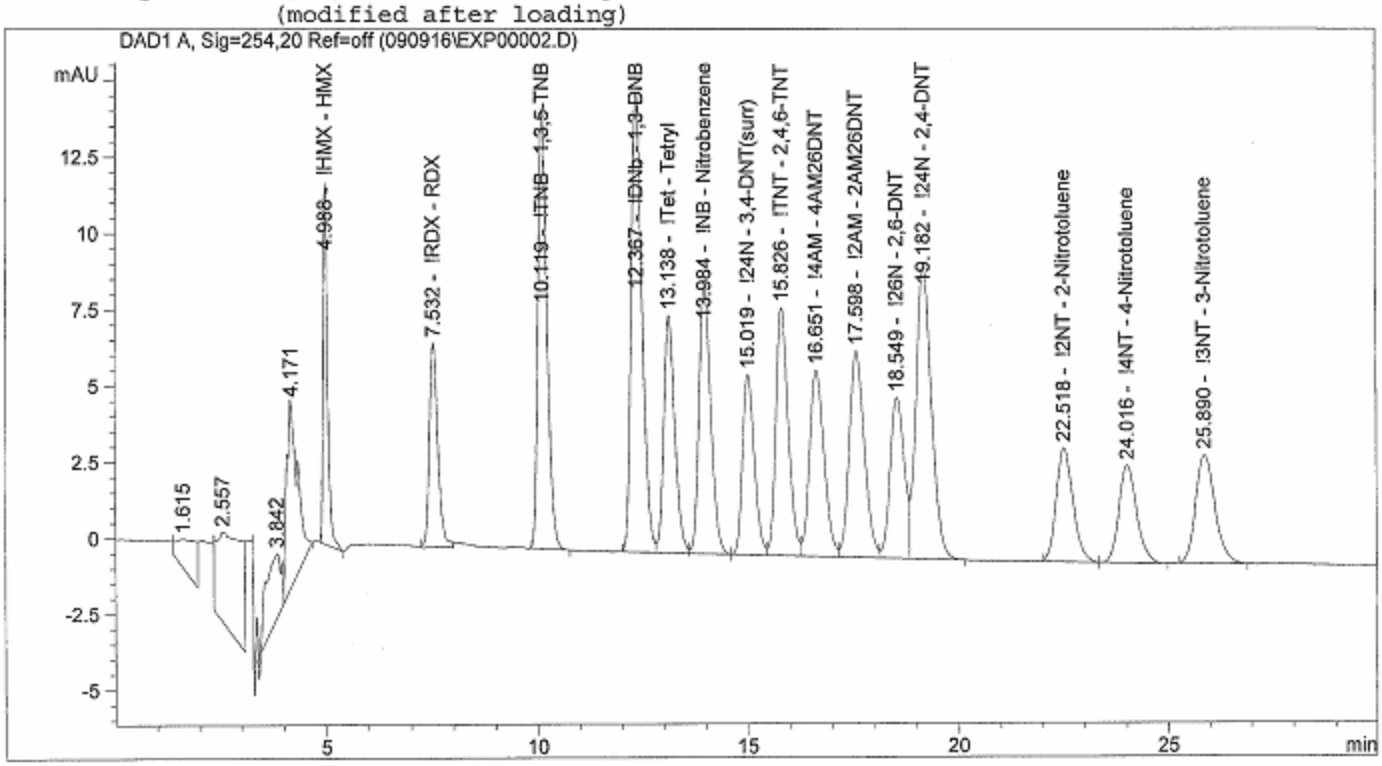
Injection Date : 9/16/2009 8:30:27 AM Seq. Line : 2
Sample Name : CCV 500 PPB EXP Location : Vial 0
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 8:31:15 AM by KLB
(modified after loading)
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/17/2009 8:43:31 AM by KLB
(modified after loading)



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 9/17/2009 8:41:46 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.988	BP	82.69794	6.65613	550.44809		!HMX - HMX
7.532	BB	93.03997	5.43140	505.33720		!RDX - RDX
10.119	BP	213.74718	2.57166	549.68532		!TNB - 1,3,5-TNB
12.367	BV	269.90796	2.00130	540.16676		!DNb - 1,3-DNB
13.138	VV	140.95052	3.72631	525.22466		!Tet - Tetryl
13.984	VV	172.25827	3.01325	519.05720		!NB - Nitrobenzene
15.019	VV	115.68566	4.47853	518.10195		!24N - 3,4-DNT(surr)
15.826	VV	166.65410	3.03307	505.47398		!TNT - 2,4,6-TNT
16.651	VV	146.51025	3.67359	538.21843		!4AM - 4AM26DNT
17.598	VV	167.77776	3.11769	523.07888		!2AM - 2AM26DNT
18.549	VV	122.65884	4.38321	537.63983		!26N - 2,6-DNT

00121493

Data File C:\HPLCDATA\3M_1090\DATA\090916\EXP00002.D Sample Name: CCV 500 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
19.182	VB	245.40408	2.14537	526.48329		!24N - 2,4-DNT
22.518	BP	104.67596	4.76975	499.27789		!2NT - 2-Nitrotoluene
24.016	VP	95.10568	5.26172	500.41979		!4NT - 4-Nitrotoluene
25.890	BB	116.05156	4.42317	513.31625		!3NT - 3-Nitrotoluene

Totals : 7851.92954

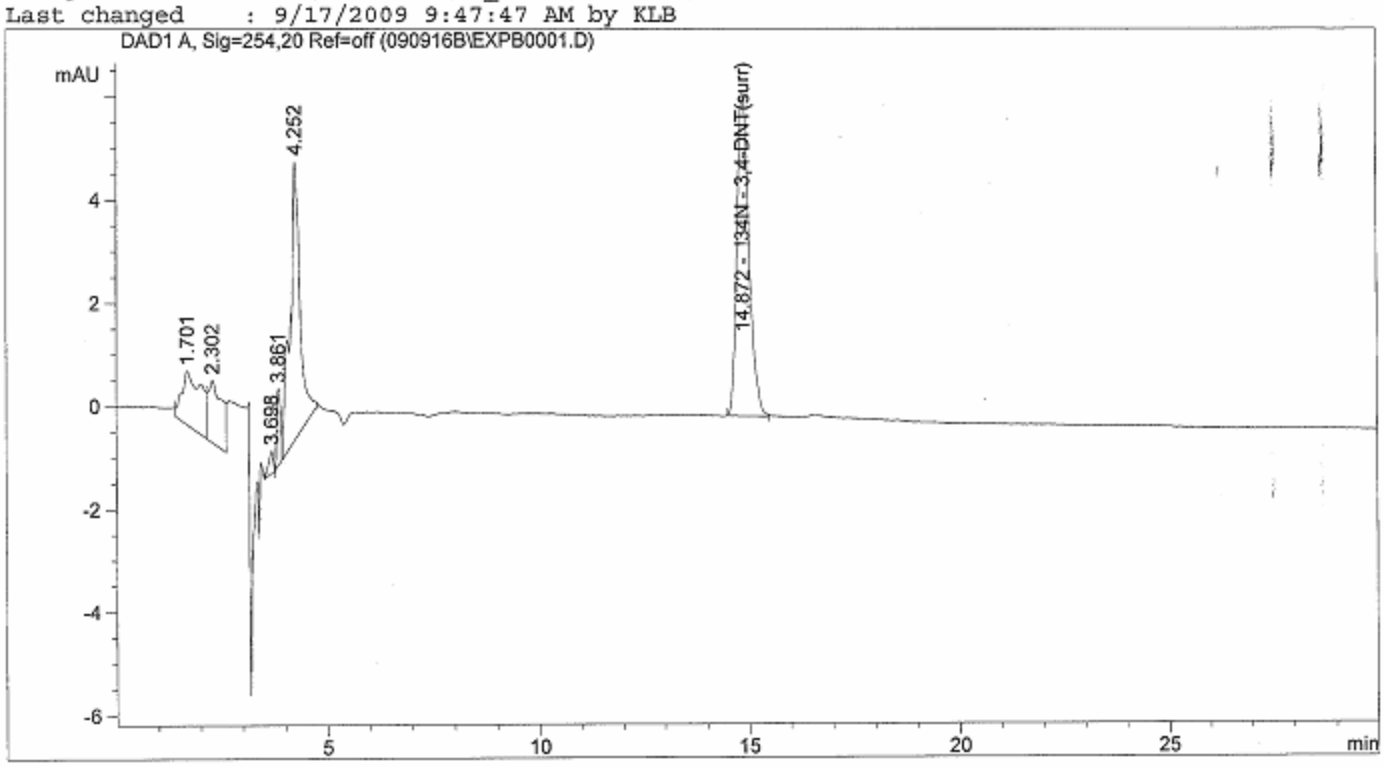
Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0001.D Sample Name: 333598 BLK0908

```
==================================================================
Injection Date  : 9/16/2009 9:09:51 AM          Seq. Line :   1
Sample Name     : 333598 BLK0908                 Location : Vial 1
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.872	BB	123.75625	4.49696	556.52735		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121497

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0001.D Sample Name: 333598 BLK0908

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 556.52735

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

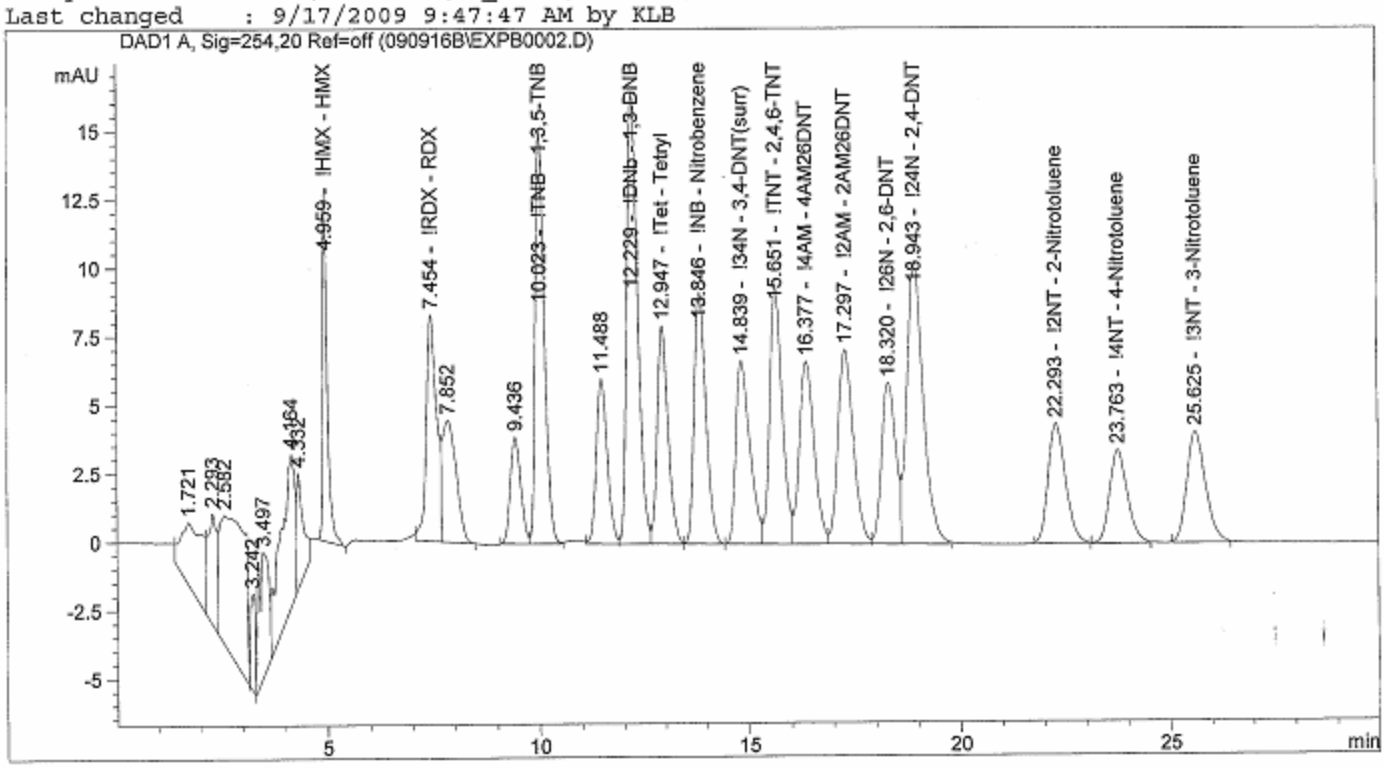
==========
*** End of Report ***

00121499

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0002.D Sample Name: 333598 LCS

==========

Injection Date : 9/16/2009 9:43:36 AM Seq. Line : 2
Sample Name : 333598 LCS Location : Vial 2
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Sequence File : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/17/2009 9:47:47 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 9/17/2009 9:47:19 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.959	BP	93.33655	6.72722	627.89572		!HMX - HMX
7.454	BV	140.00046	5.68887	796.44438		!RDX - RDX
10.023	VB	224.51981	2.57870	578.96907		!TNB - 1,3,5-TNB
12.229	VV	299.15652	2.01252	602.05886		!DNb - 1,3-DNB
12.947	VV	144.67427	3.73211	539.94064		!Tet - Tetryl
13.846	VP	179.62761	3.02065	542.59158		!NB - Nitrobenzene
14.839	VV	156.84885	4.55271	714.08669		!34N - 3,4-DNT(surr)
15.651	VV	193.98511	3.06099	593.78675		!TNT - 2,4,6-TNT
16.377	VV	163.88681	3.69743	605.95947		!4AM - 4AM26DNT
17.297	VV	180.93344	3.13111	566.52165		!2AM - 2AM26DNT
18.320	VV	136.18207	4.40945	600.48746		!26N - 2,6-DNT
18.943	VB	276.75827	2.15936	597.61945		!24N - 2,4-DNT
22.293	BB	129.07019	4.83116	623.55926		!2NT - 2-Nitrotoluene
23.763	BB	100.84772	5.28362	532.84079		!4NT - 4-Nitrotoluene

00121501

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0002.D

Sample Name: 333598 LCS

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.625	BB	128.62479	4.44147	571.28298		!3NT - 3-Nitrotoluene

Totals : 9094.04476

Results obtained with enhanced integrator!

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========

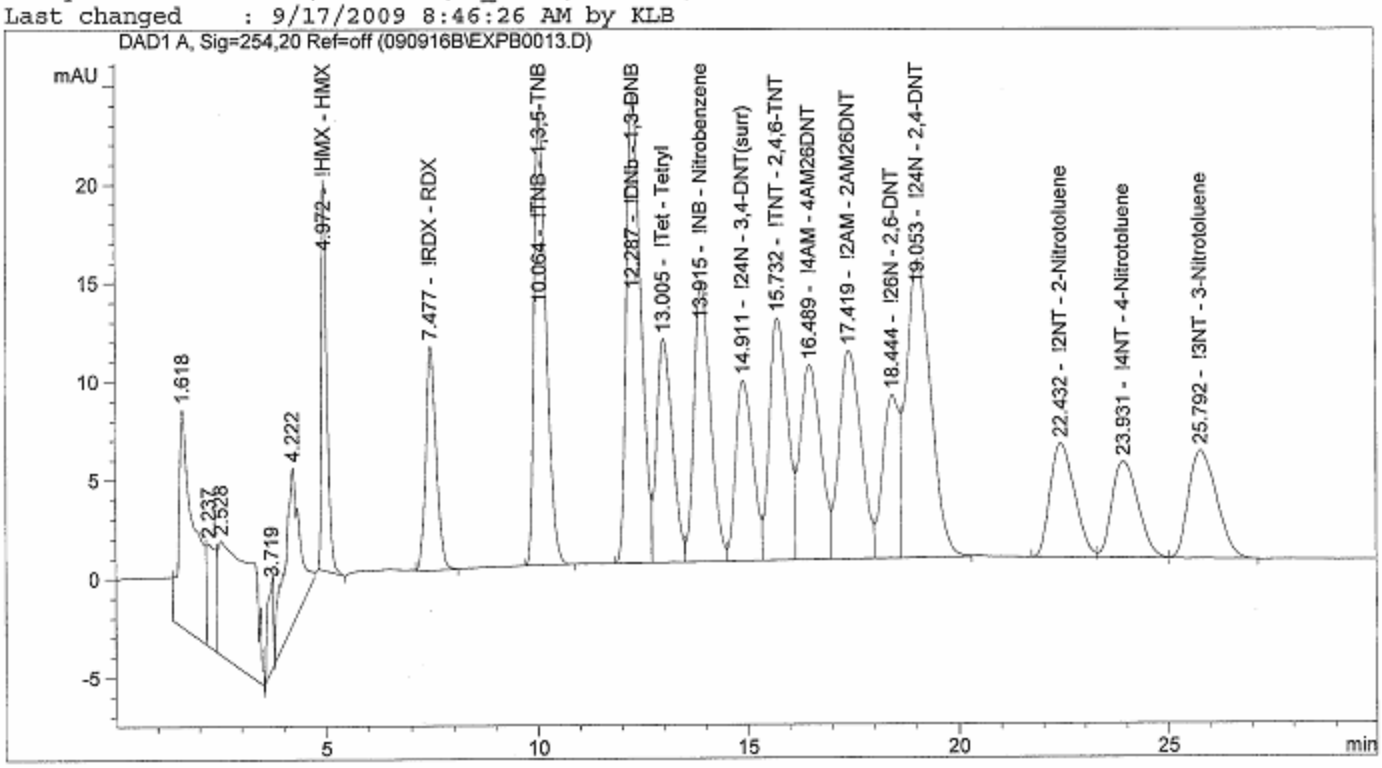
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0013.D Sample Name: CCV 1000 PPB EXP

P5830EXP

==========

Injection Date : 9/16/2009 3:54:57 PM Seq. Line : 13
Sample Name : CCV 1000 PPB EXP Location : Vial 13
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Sequence File : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/17/2009 8:46:26 AM by KLB



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External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 9/17/2009 8:41:46 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.972	BP	167.08406	6.97115	1164.76795		!HMX - HMX
7.477	BB	192.75725	5.82848	1123.48273		!RDX - RDX
10.064	BB	458.32904	2.64994	1214.54386		!TNB - 1,3,5-TNB
12.287	PV	573.03711	2.06201	1181.61010		!DNb - 1,3-DNB
13.005	VV	297.04504	3.84486	1142.09760		!Tet - Tetryl
13.915	VV	389.65594	3.11385	1213.32825		!NB - Nitrobenzene
14.911	VV	262.54462	4.63663	1217.32173		!24N - 3,4-DNT(surr)
15.732	VV	368.64258	3.14165	1158.14518		!TNT - 2,4,6-TNT
16.489	VV	335.47775	3.80023	1274.89236		!4AM - 4AM26DNT
17.419	VV	382.62506	3.22130	1232.54870		!2AM - 2AM26DNT
18.444	VV	225.78726	4.50387	1016.91726		!26N - 2,6-DNT
19.053	VB	605.38409	2.21876	1343.20347		!24N - 2,4-DNT

00121505

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0013.D Sample Name: CCV 1000 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
22.432	BV	236.62120	4.95095	1171.49986		!2NT - 2-Nitrotoluene
23.931	VV	215.68250	5.47670	1181.22734		!4NT - 4-Nitrotoluene
25.792	VP	257.33826	4.52593	1164.69458		!3NT - 3-Nitrotoluene

Totals : 1.78003e4

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

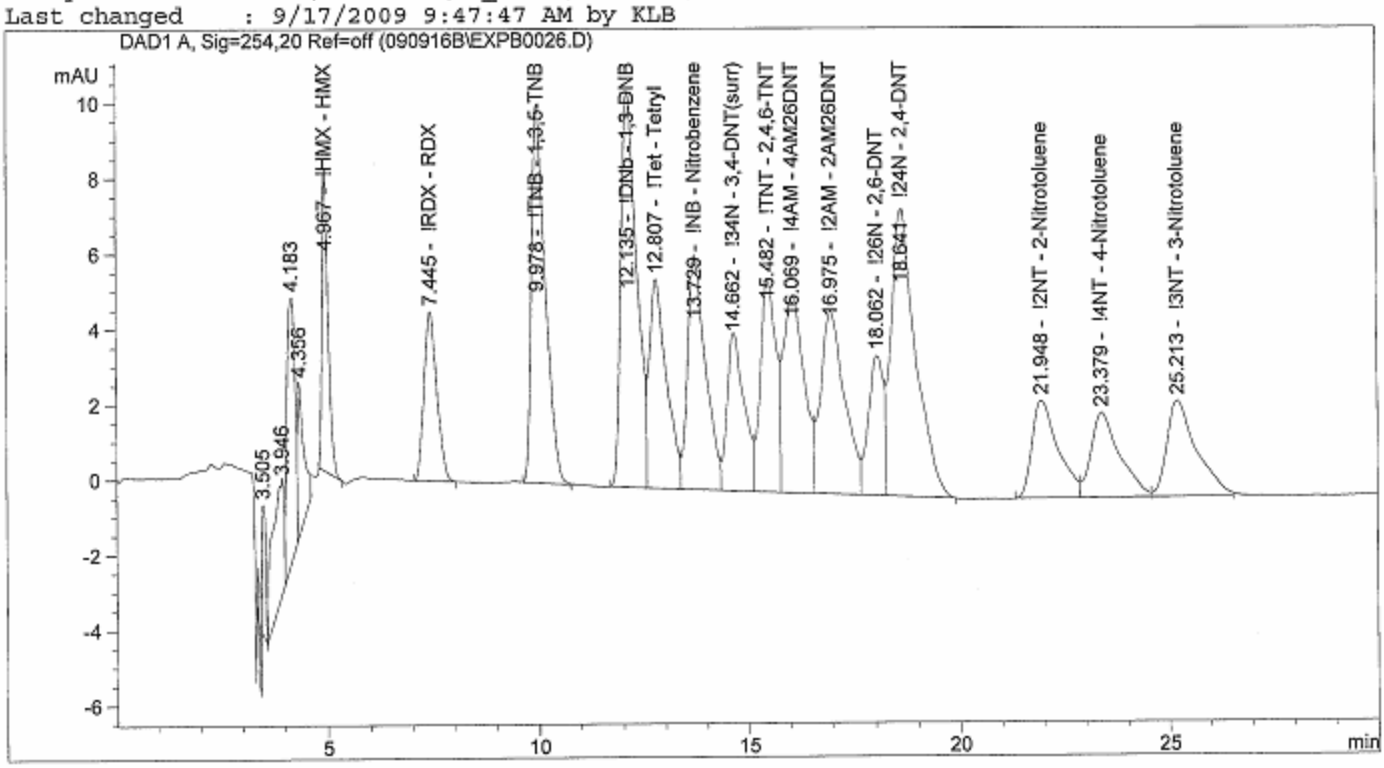
==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0026.D Sample Name: CCV 500 PPB EXP

P5830EXP

==========

Injection Date : 9/16/2009 11:13:46 PM Seq. Line : 26
Sample Name : CCV 500 PPB EXP Location : Vial 0
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Sequence File : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/17/2009 9:47:47 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 9/17/2009 9:47:19 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.967	BP	80.03540	6.63538	531.06512		!HMX - HMX
7.445	PP	94.81281	5.44575	516.32697		!RDX - RDX
9.978	BB	228.81450	2.58132	590.64354		!TNB - 1,3,5-TNB
12.135	BV	275.02502	2.00344	550.99485		!DNb - 1,3-DNB
12.807	VV	157.04935	3.74943	588.84594		!Tet - Tetryl
13.729	VV	186.64307	3.02715	564.99581		!NB - Nitrobenzene
14.662	VV	121.08938	4.49114	543.82994		!34N - 3,4-DNT(surr)
15.482	VV	148.21855	3.00843	445.90449		!TNT - 2,4,6-TNT
16.069	VV	182.94275	3.71836	680.24745		!4AM - 4AM26DNT
16.975	VV	190.61720	3.13980	598.49942		!2AM - 2AM26DNT
18.062	VV	92.59241	4.29743	397.90954		!26N - 2,6-DNT
18.641	VP	306.22107	2.16988	664.46445		!24N - 2,4-DNT

00121509

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0026.D Sample Name: CCV 500 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
21.948	PV	112.28524	4.79177	538.04490		!2NT - 2-Nitrotoluene
23.379	VV	107.20588	5.30513	568.74060		!4NT - 4-Nitrotoluene
25.213	VB	126.99835	4.43931	563.78458		!3NT - 3-Nitrotoluene

Totals : 8344.29760

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========
*** End of Report ***

EXPLOSIVE SAMPLES

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0003.D Sample Name: 129609-02X2

```
==================================================================
Injection Date  : 9/16/2009 10:17:20 AM          Seq. Line :   3
Sample Name     : 129609-02X2                     Location : Vial 3
Acq. Operator   : KLB                                  Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
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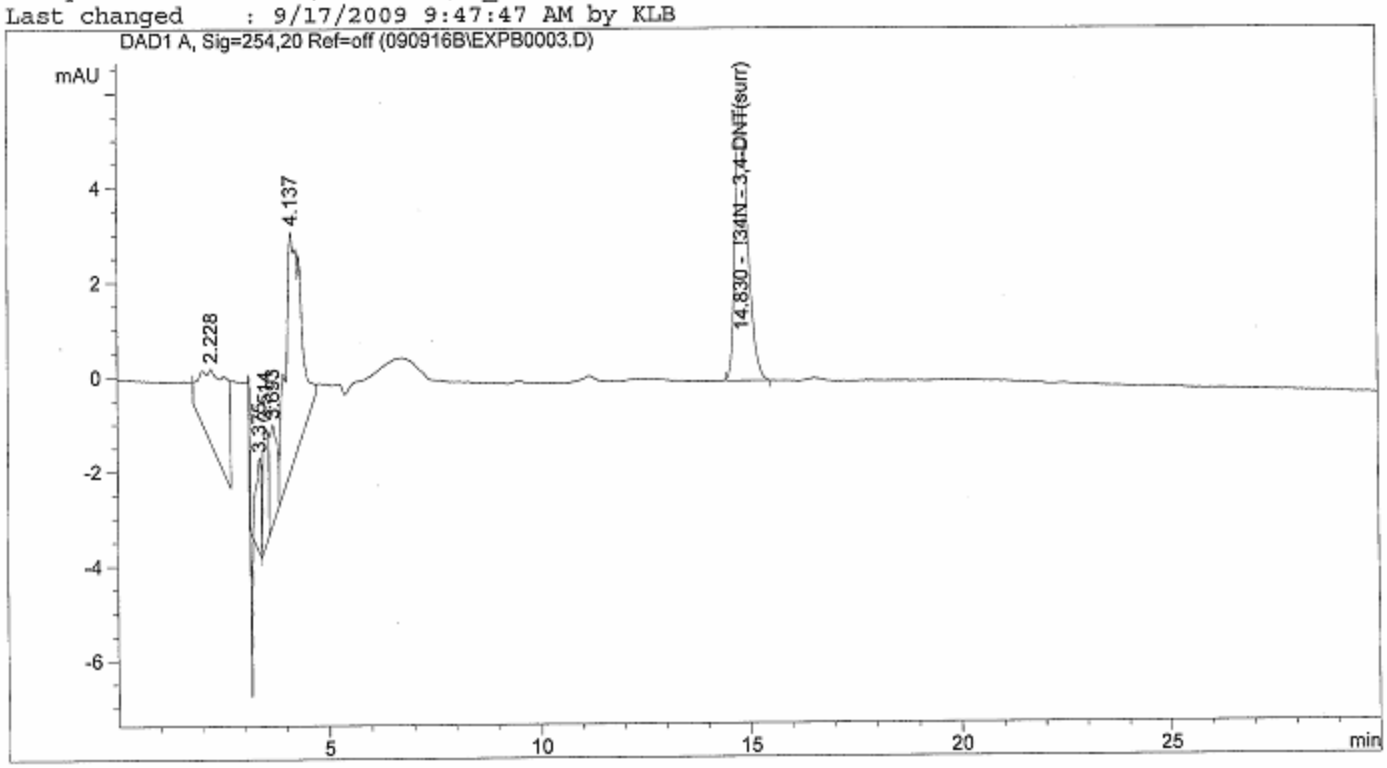


```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.830	BB	122.67159	4.49463	551.36313		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121515

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0003.D Sample Name: 129609-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 551.36313

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0004.D Sample Name: 129610-02X2

```
==================================================================
Injection Date  : 9/16/2009 10:51:06 AM        Seq. Line :   4
Sample Name     : 129610-02X2                   Location : Vial 4
Acq. Operator   : KLB                                Inj :   1
Acq. Instrument : 3M_1090                     Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
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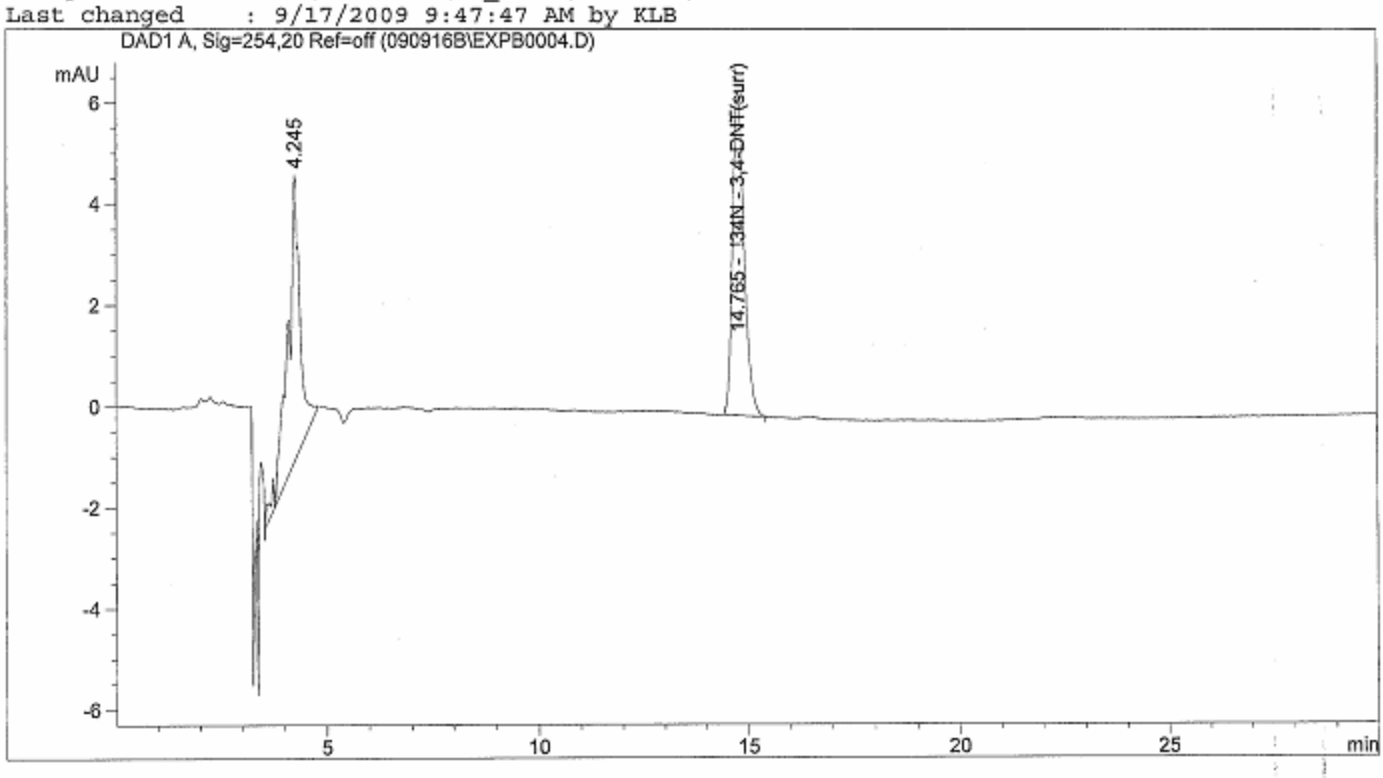



```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.765	BB	120.34599	4.48948	540.29053		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121519

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0004.D Sample Name: 129610-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 540.29053

Results obtained with enhanced integrator!
2 Warnings or Errors :

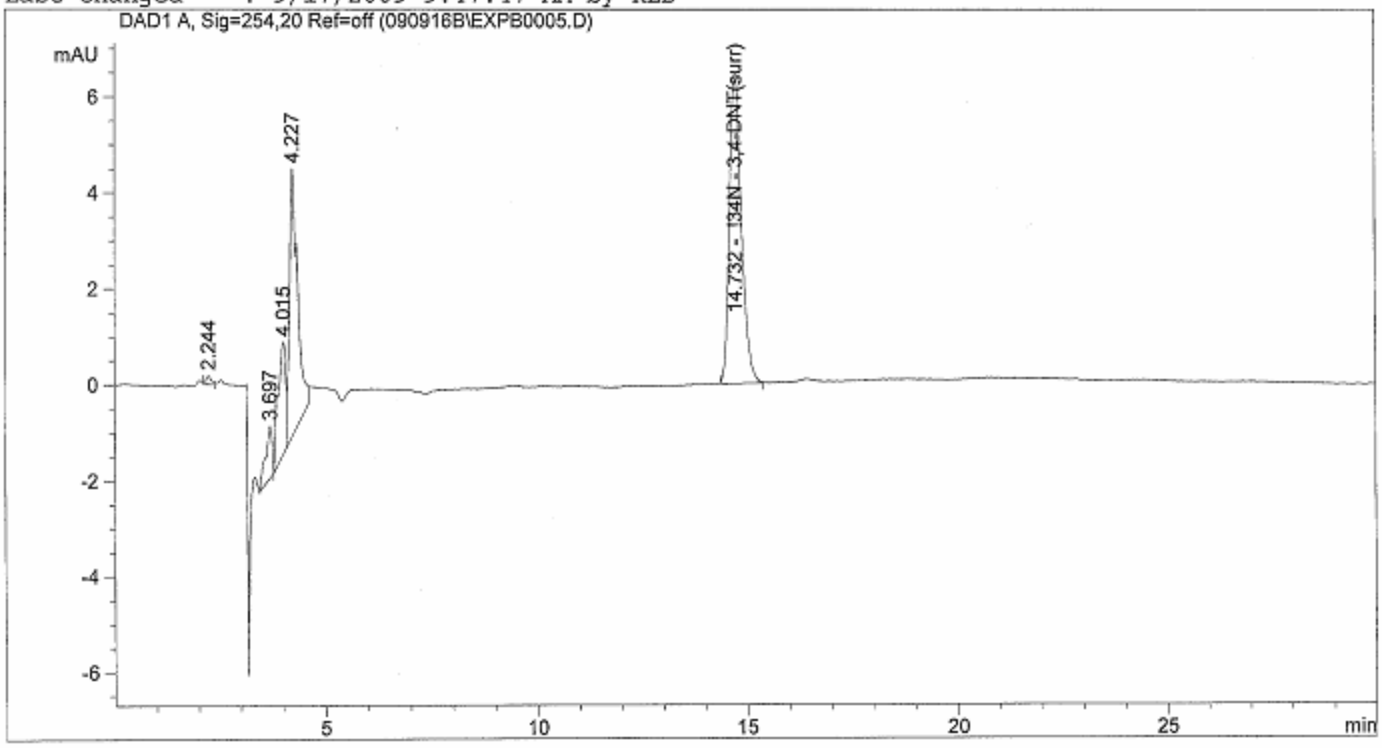
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0005.D Sample Name: 129611-02X2

==========

Injection Date : 9/16/2009 11:24:52 AM Seq. Line : 5
Sample Name : 129611-02X2 Location : Vial 5
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Sequence File : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/17/2009 9:47:47 AM by KLB



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External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : 9/17/2009 9:47:19 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.732	BP	129.02379	4.50775	581.60698		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0005.D Sample Name: 129611-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 581.60698

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0006.D Sample Name: 129612-02X2

```
==================================================================
Injection Date  : 9/16/2009 11:58:38 AM          Seq. Line :   6
Sample Name     : 129612-02X2                     Location : Vial 6
Acq. Operator   : KLB                                  Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
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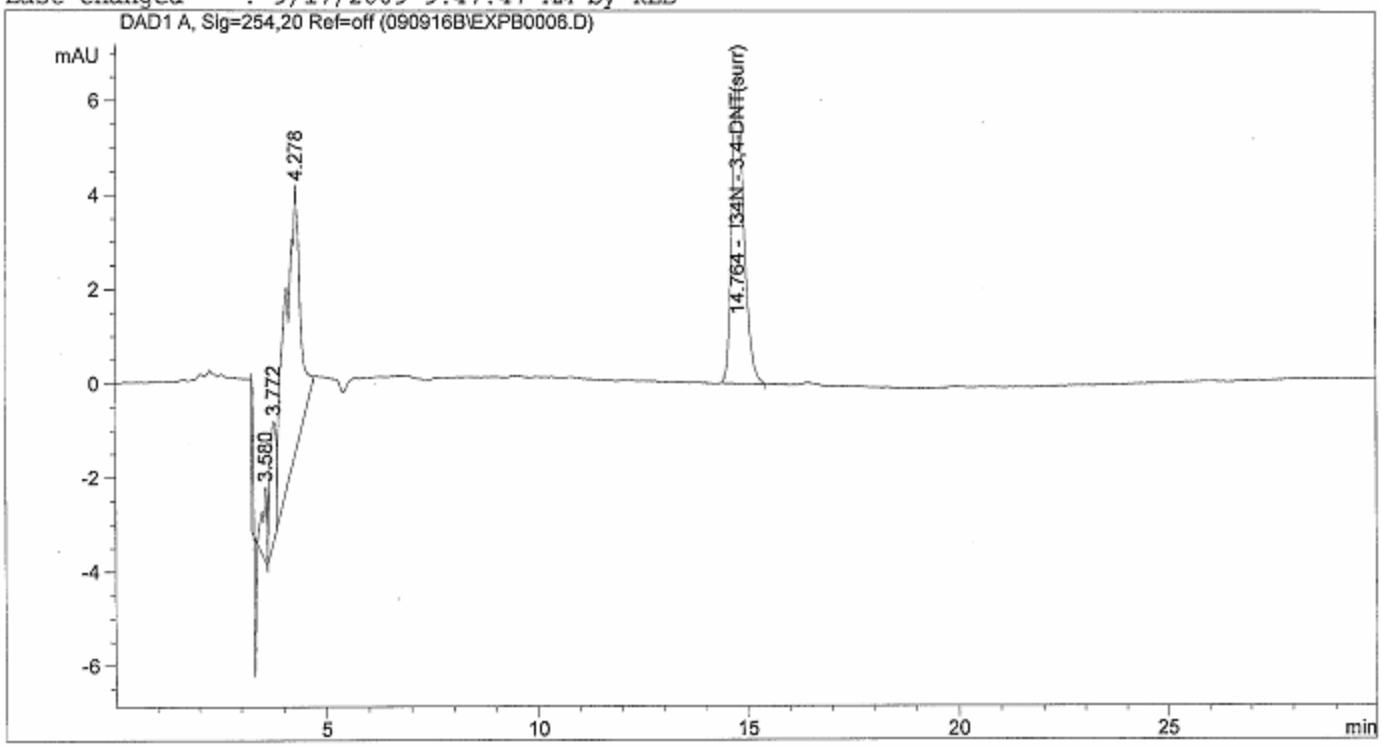



```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.764	BB	130.89384	4.51137	590.51063		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121527

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0006.D Sample Name: 129612-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 590.51063

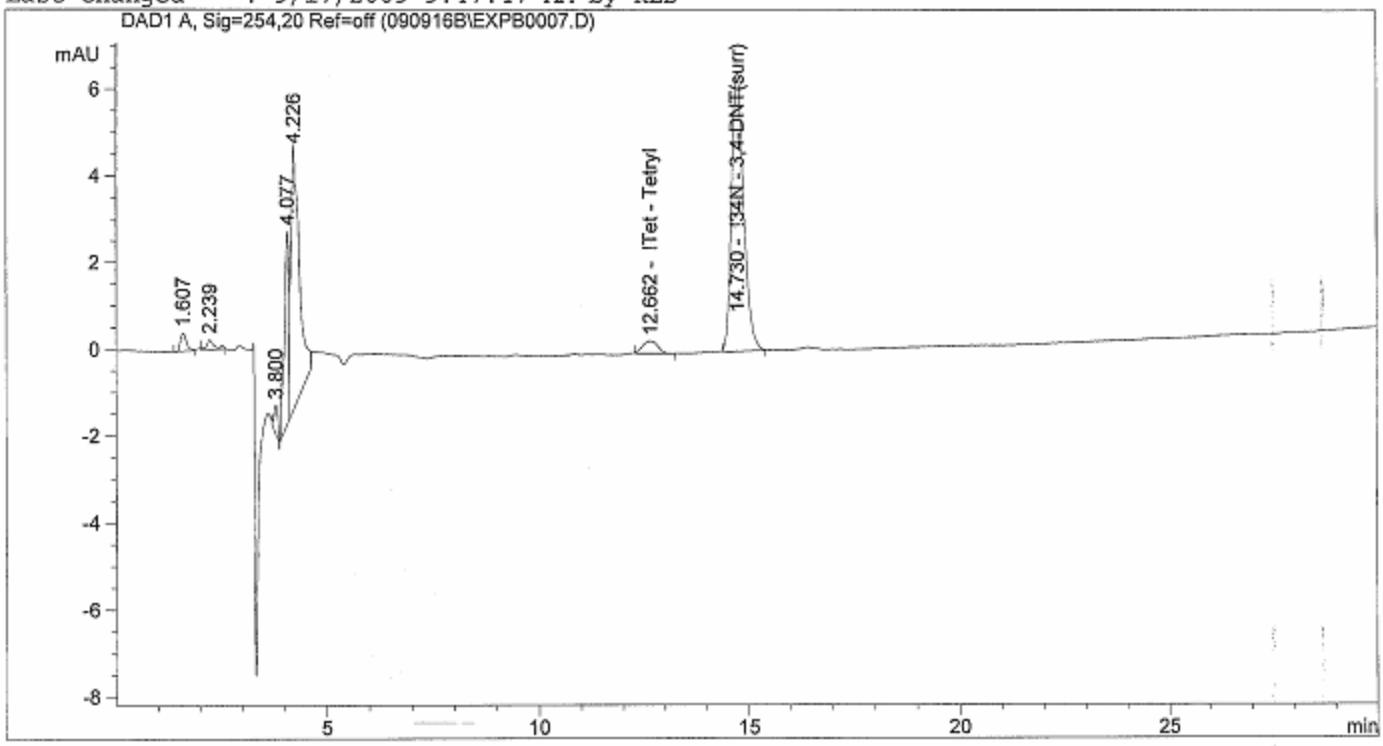
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0007.D Sample Name: 129613-02X2

```
==================================================================
Injection Date  : 9/16/2009 12:32:24 PM        Seq. Line :   7
Sample Name     : 129613-02X2                   Location : Vial 7
Acq. Operator   : KLB                                Inj :   1
Acq. Instrument : 3M_1090                     Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.662	BP	7.41180	0.00000	0.00000		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.730	BB	129.31943	4.50833	583.01457		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0007.D Sample Name: 129613-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 583.01457

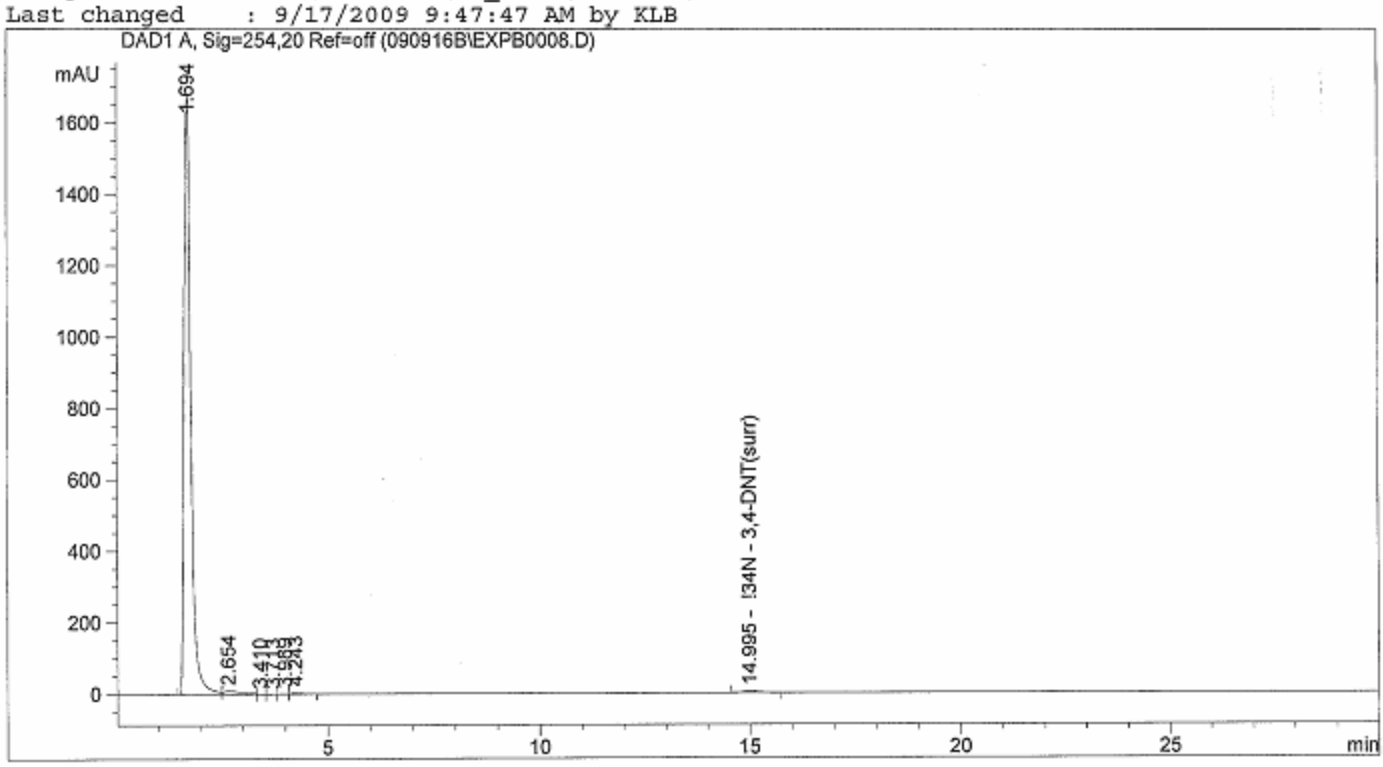
Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found
Warning : Negative results set to zero (cal. curve intercept), (!Tet - Tetryl)

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0008.D Sample Name: 129614-02X2

```
==================================================================
Injection Date  : 9/16/2009 1:06:11 PM          Seq. Line :   8
Sample Name     : 129614-02X2                    Location : Vial 8
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.995	BB	130.09158	4.50983	586.69093		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0008.D Sample Name: 129614-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 586.69093

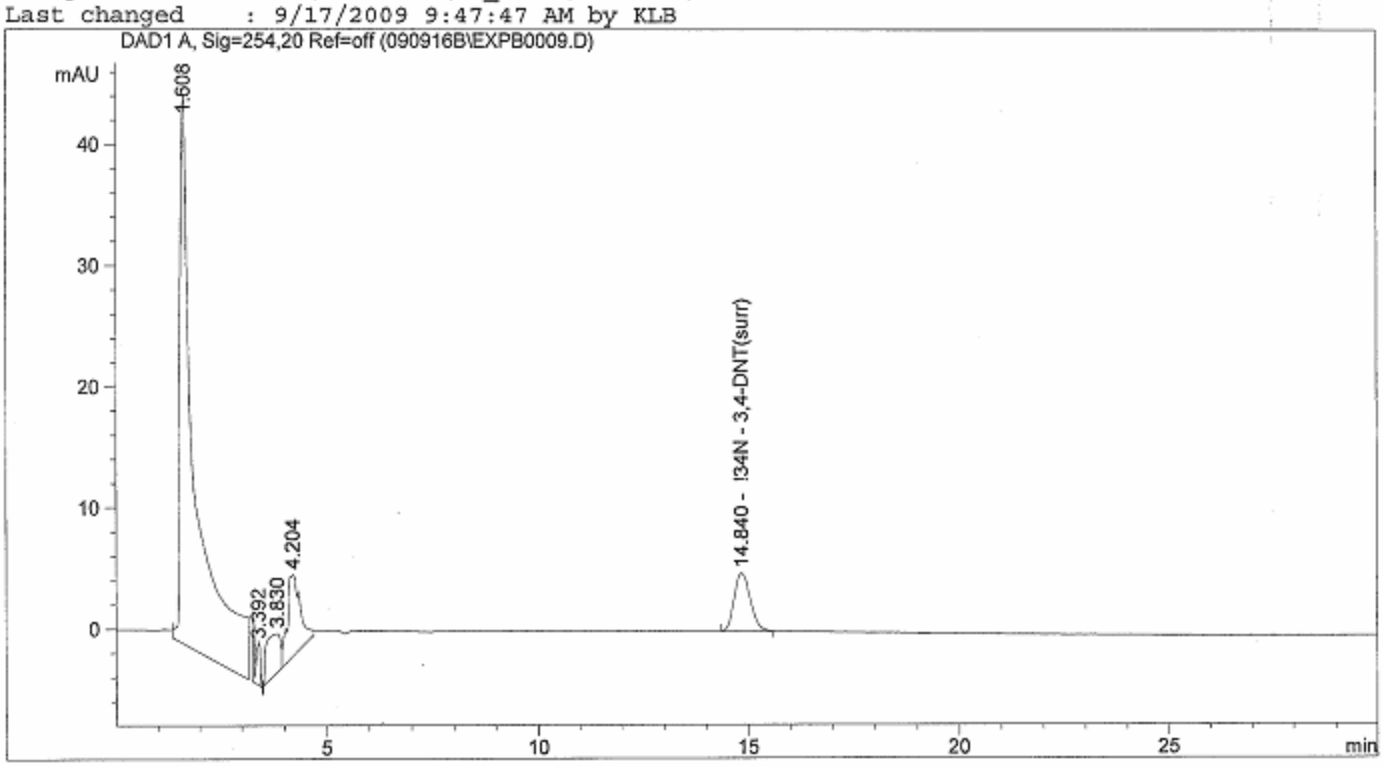
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0009.D Sample Name: 129615-02X2

```
==================================================================
Injection Date  : 9/16/2009 1:39:57 PM          Seq. Line :   9
Sample Name     : 129615-02X2                    Location : Vial 9
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.840	BB	128.12117	4.50596	577.30947		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0009.D Sample Name: 129615-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 577.30947

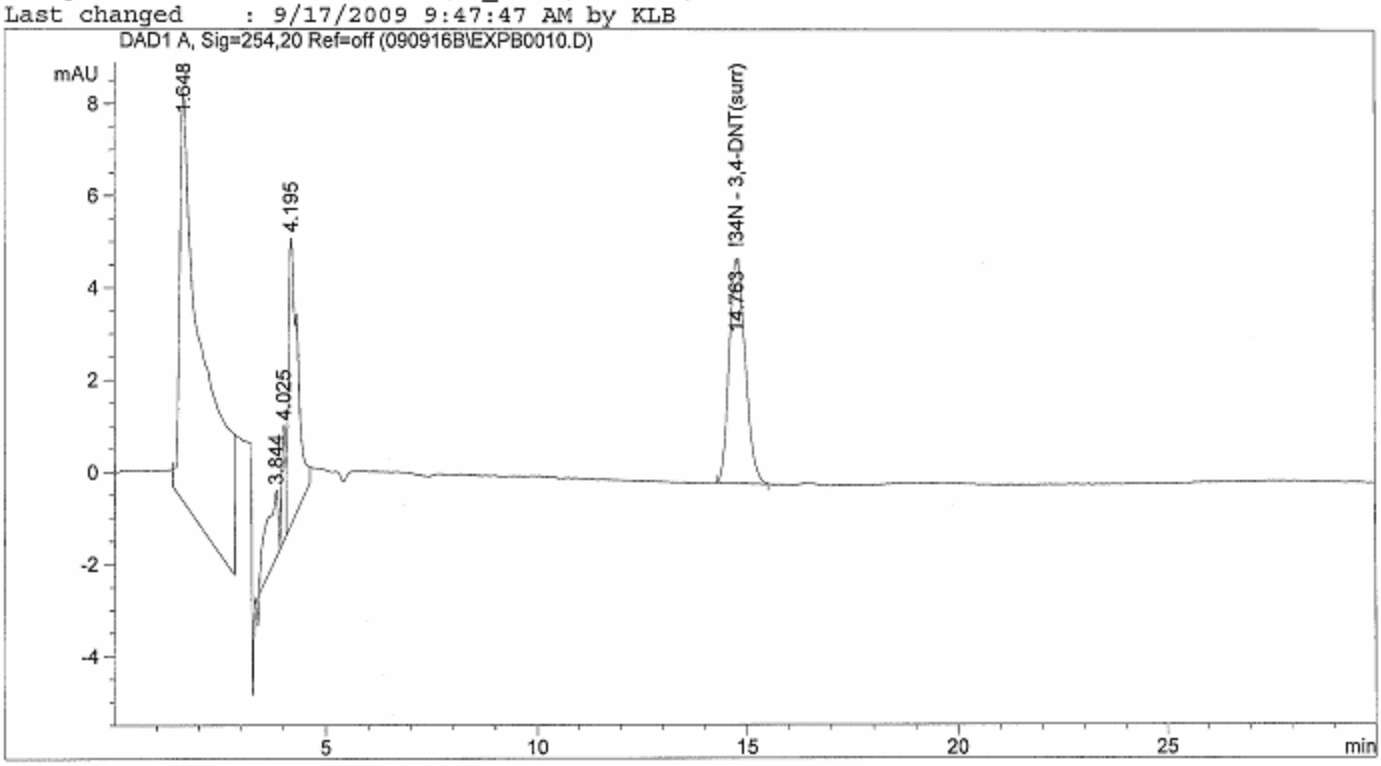
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0010.D Sample Name: 129616-02X2

```
==================================================================
Injection Date  : 9/16/2009 2:13:42 PM          Seq. Line :  10
Sample Name     : 129616-02X2                    Location : Vial 10
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.763	BB	130.74780	4.51109	589.81530		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0010.D Sample Name: 129616-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 589.81530

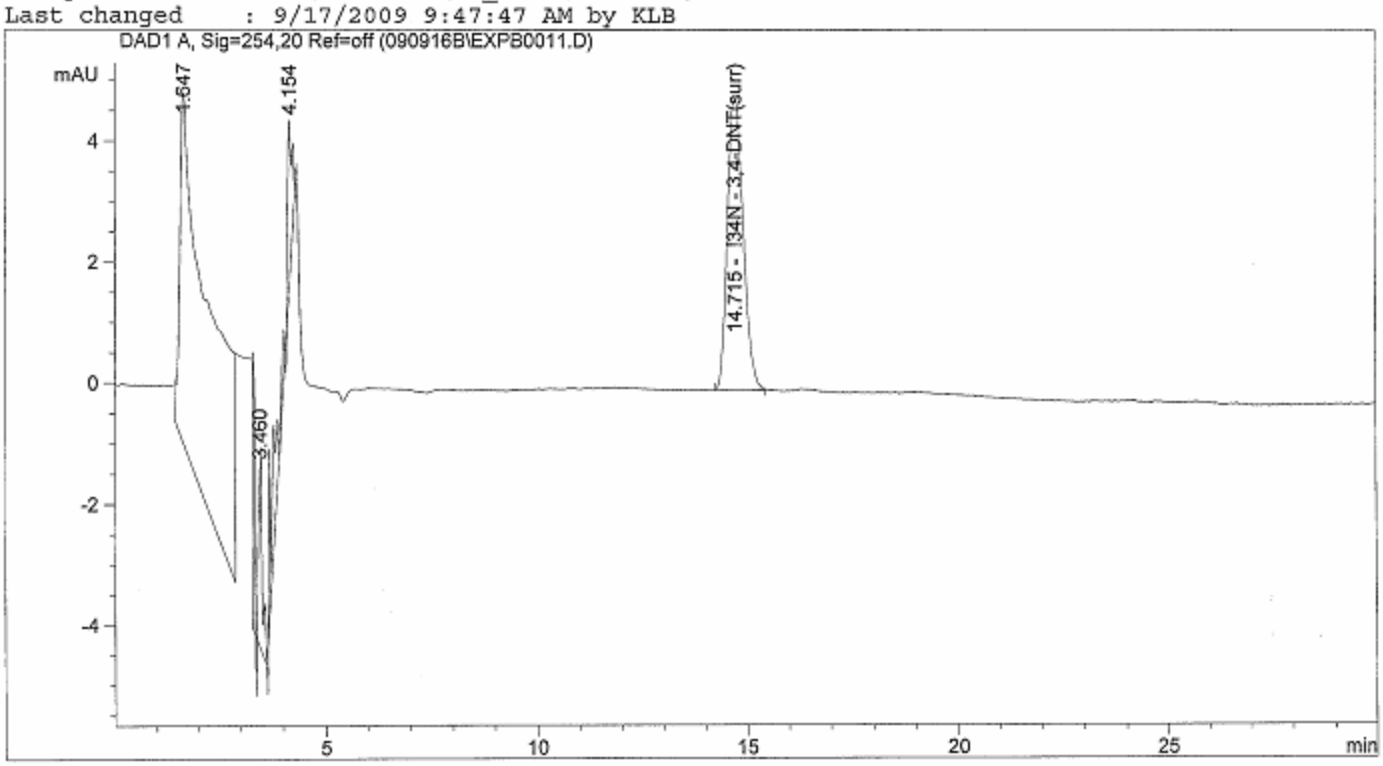
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0011.D Sample Name: 129617-02X2

```
==================================================================
Injection Date  : 9/16/2009 2:47:27 PM          Seq. Line :  11
Sample Name     : 129617-02X2                    Location : Vial 11
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.715	BB	127.39262	4.50451	573.84070		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0011.D Sample Name: 129617-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 573.84070

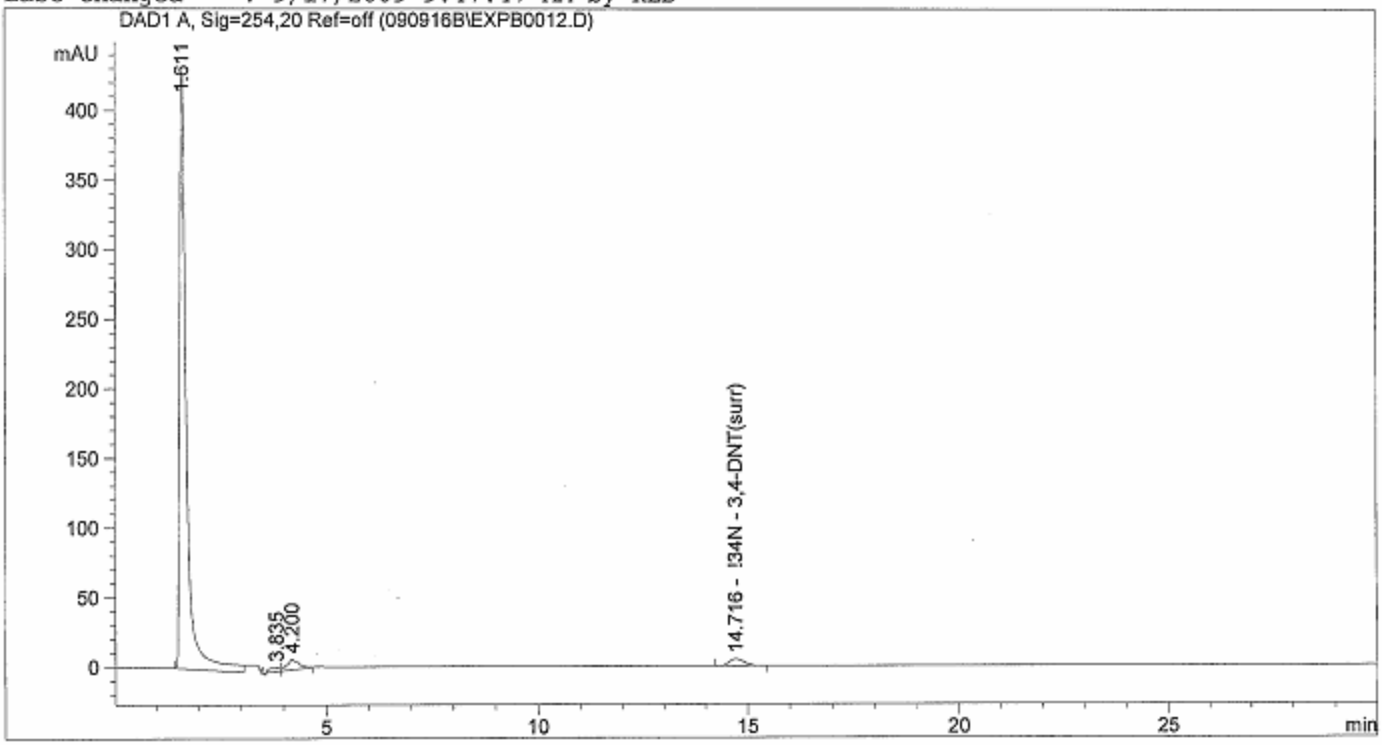
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0012.D Sample Name: 129618-02X2

```
==================================================================
Injection Date  : 9/16/2009 3:21:11 PM          Seq. Line :  12
Sample Name     : 129618-02X2                    Location : Vial 12
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.716	PB	125.58034	4.50080	565.21214		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121551

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0012.D Sample Name: 129618-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 565.21214

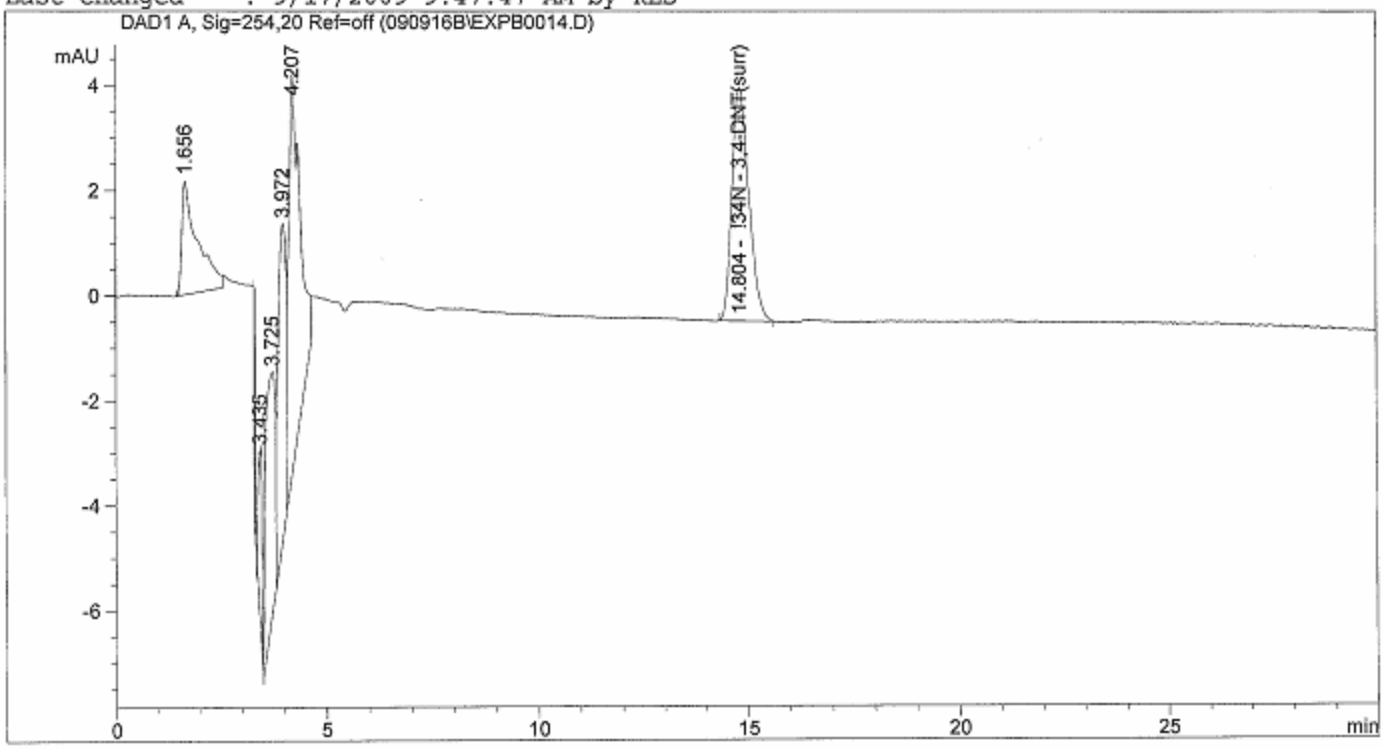
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0014.D Sample Name: 129619-02X2

```
==================================================================
Injection Date  : 9/16/2009 4:28:42 PM          Seq. Line :  14
Sample Name     : 129619-02X2                    Location : Vial 14
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.804	BB	124.74450	4.49906	561.23258		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0014.D Sample Name: 129619-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 561.23258

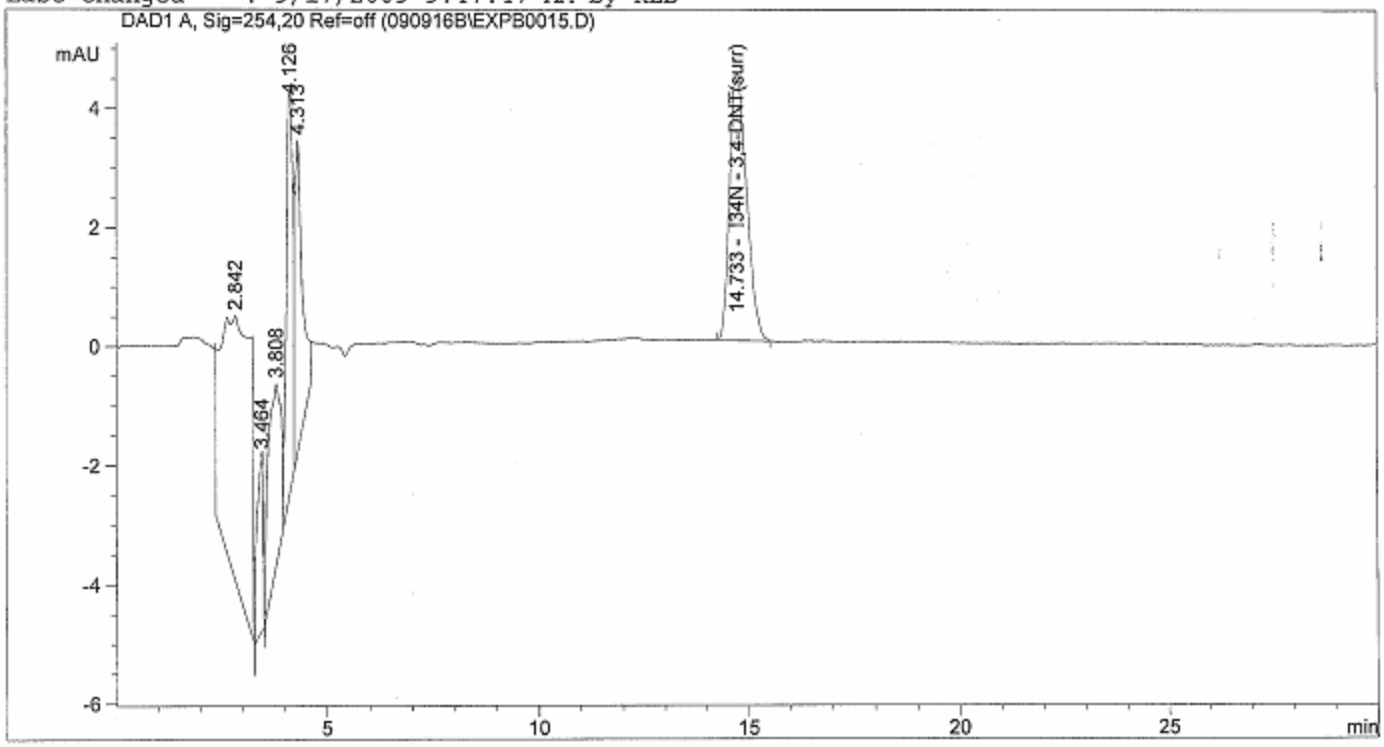
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0015.D Sample Name: 129620-02X2

```
==================================================================
Injection Date  : 9/16/2009 5:02:28 PM          Seq. Line :  15
Sample Name     : 129620-02X2                    Location : Vial 15
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.733	BB	127.55796	4.50484	574.62793		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0015.D Sample Name: 129620-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 574.62793

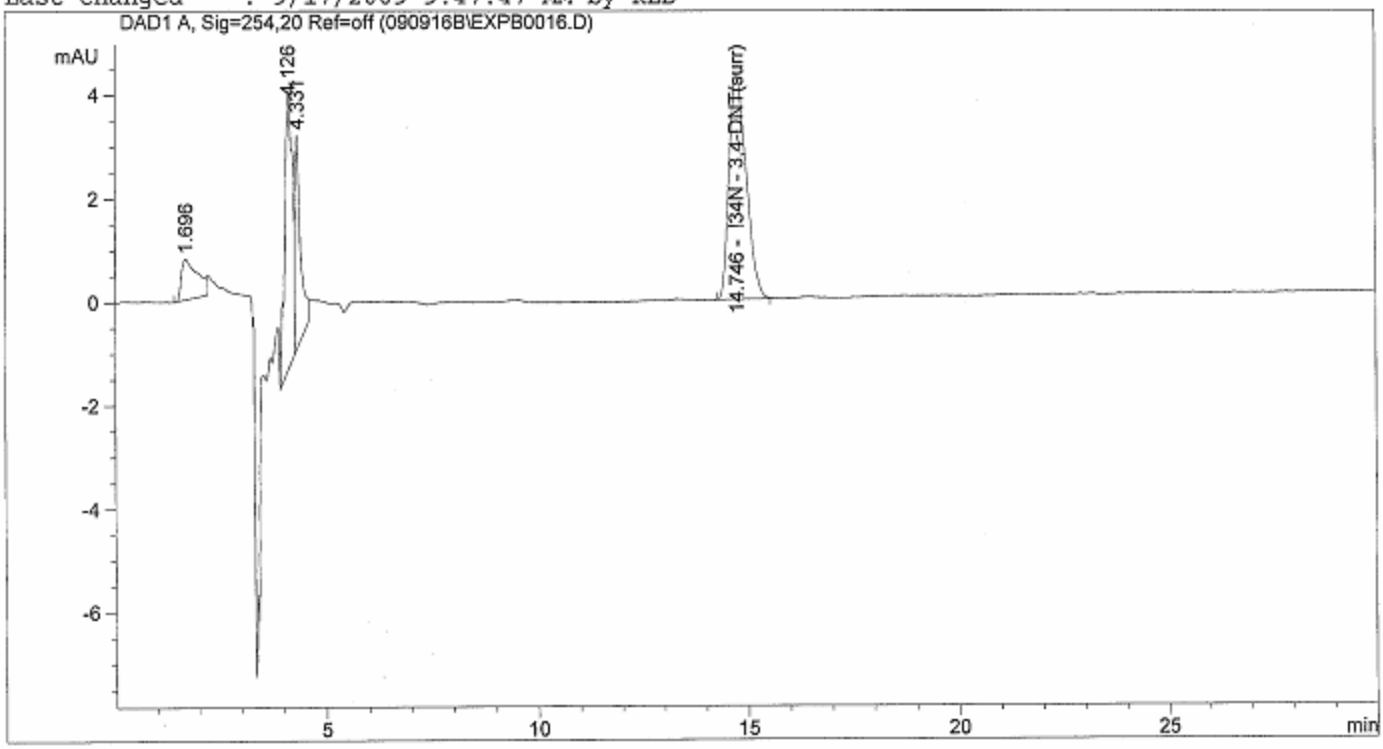
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0016.D Sample Name: 130228-06X2

```
==================================================================
Injection Date  : 9/16/2009 5:36:13 PM          Seq. Line :  16
Sample Name     : 130228-06X2                    Location : Vial 16
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.746	BB	123.20203	4.49578	553.88865		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121563

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0016.D Sample Name: 130228-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 553.88865

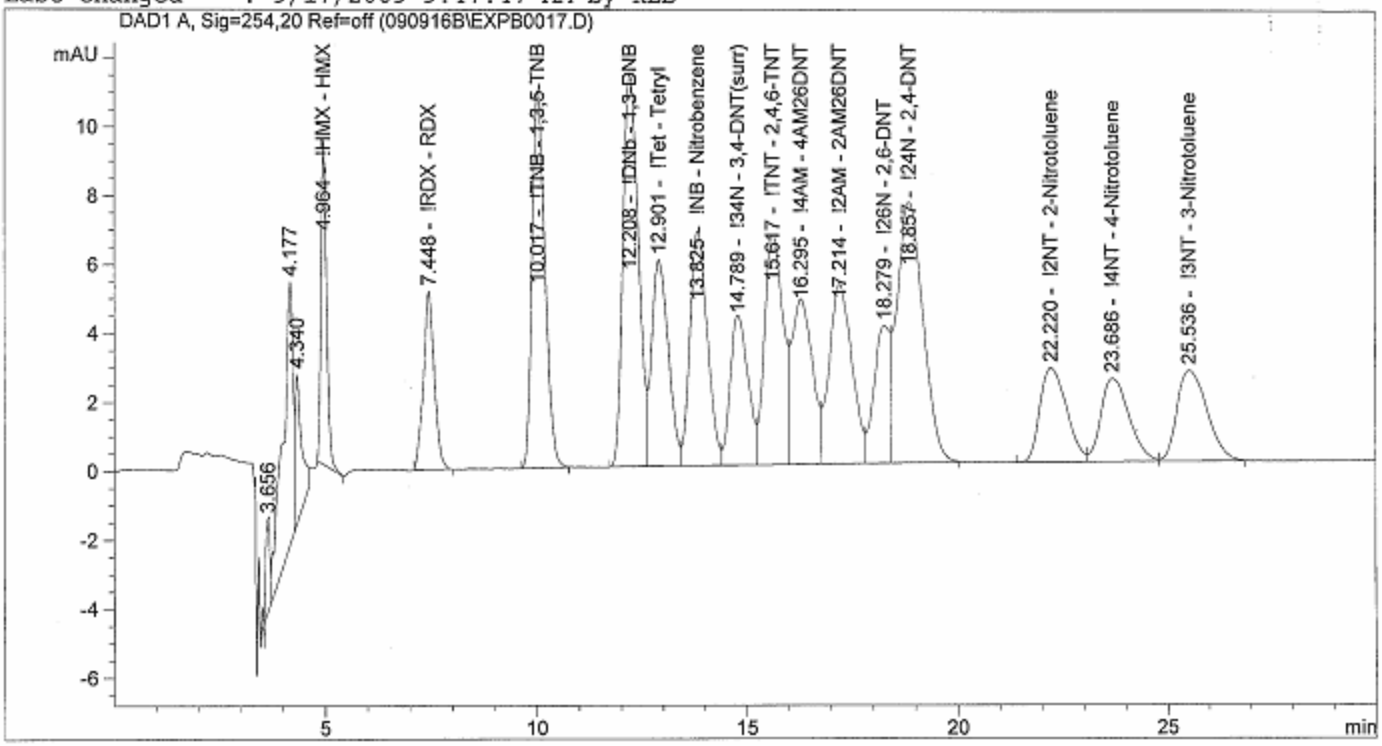
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0017.D Sample Name: 130228-07S1X2

```
==================================================================
Injection Date  : 9/16/2009 6:09:59 PM          Seq. Line :  17
Sample Name     : 130228-07S1X2                  Location : Vial 17
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.964	BP	82.63360	6.65564	549.97966		!HMX - HMX
7.448	BP	91.48009	5.41831	495.66756		!RDX - RDX
10.017	BB	230.91109	2.58256	596.34280		!TNB - 1,3,5-TNB
12.208	BV	293.42743	2.01050	589.93567		!DNb - 1,3-DNB
12.901	VV	165.78171	3.76010	623.35552		!Tet - Tetryl
13.825	VV	196.55533	3.03554	596.65115		!NB - Nitrobenzene
14.789	VV	128.69434	4.50710	580.03841		!34N - 3,4-DNT(surr)
15.617	VV	207.51129	3.07209	637.49296		!TNT - 2,4,6-TNT
16.295	VV	164.86186	3.69862	609.76063		!4AM - 4AM26DNT
17.214	VV	196.83078	3.14492	619.01792		!2AM - 2AM26DNT
18.279	VV	103.16601	4.33330	447.04913		!26N - 2,6-DNT
18.857	VB	323.44199	2.17515	703.53515		!24N - 2,4-DNT
22.220	PV	120.95061	4.81347	582.19242		!2NT - 2-Nitrotoluene
23.686	VV	113.17479	5.32312	602.44259		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0017.D Sample Name: 130228-07S1X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.536	VB	134.31953	4.44863	597.53765		!3NT - 3-Nitrotoluene

Totals : 8830.99922

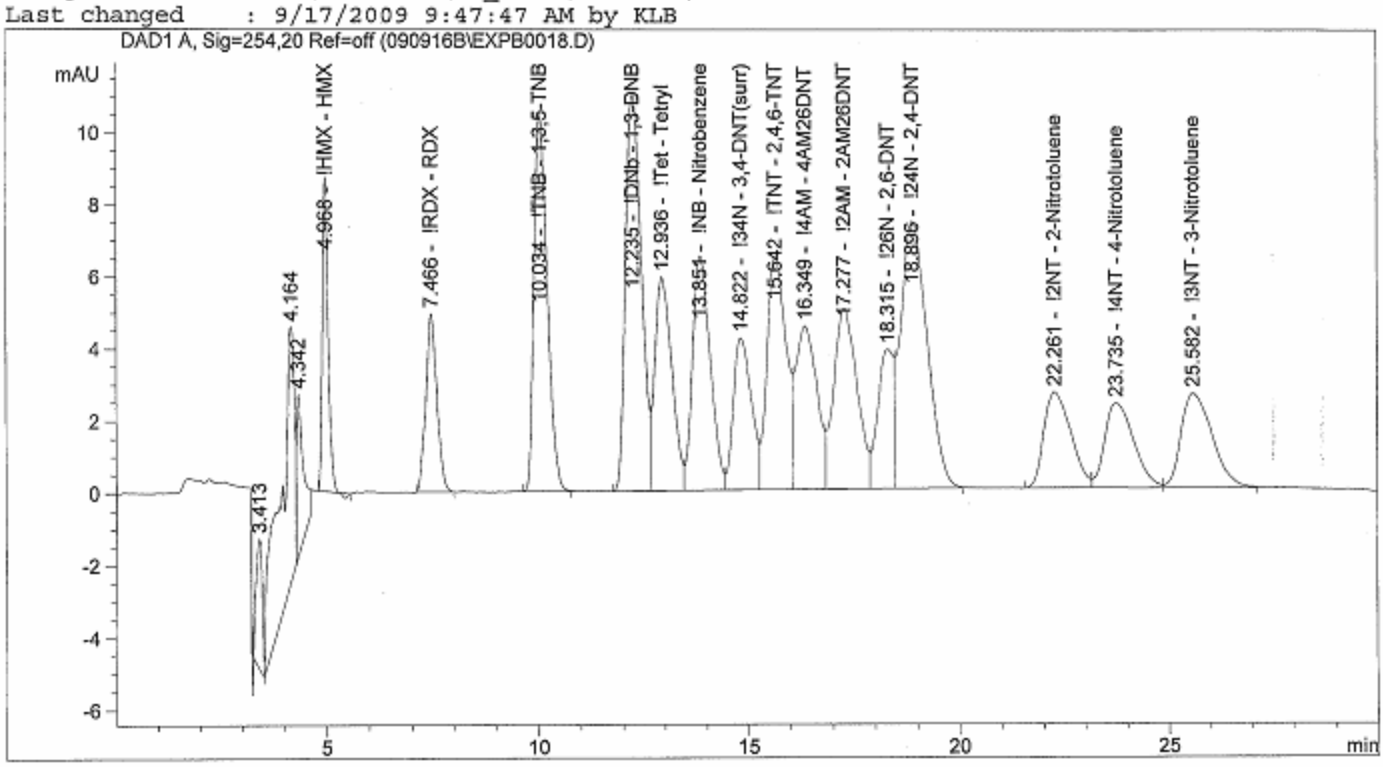
Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0018.D Sample Name: 130228-08S2X2

Injection Date	: 9/16/2009 6:43:46 PM	Seq. Line	: 18
Sample Name	: 130228-08S2X2	Location	: Vial 18
Acq. Operator	: KLB	Inj	: 1
Acq. Instrument	: 3M_1090	Inj Volume	: 10 µl
Sequence File	: C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S		
Acq. Method	: C:\HPLCDATA\3M_1090\METHODS\8330OLD.M		
Last changed	: 9/16/2009 9:08:57 AM by KLB		
Analysis Method	: C:\HPLCDATA\3M_1090\METHODS\8330OLD.M		
Last changed	: 9/17/2009 9:47:47 AM by KLB		



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	9/17/2009 9:47:19 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.968	BP	77.85883	6.61736	515.21999		!HMX - HMX
7.466	BB	88.69897	5.39383	478.42740		!RDX - RDX
10.034	BB	226.70184	2.58004	584.90061		!TNB - 1,3,5-TNB
12.235	BV	289.09558	2.00892	580.76917		!DNb - 1,3-DNB
12.936	VV	167.60117	3.76218	630.54587		!Tet - Tetryl
13.851	VV	192.12531	3.03189	582.50364		!NB - Nitrobenzene
14.822	VV	126.17580	4.50203	568.04726		!34N - 3,4-DNT(surr)
15.642	VV	205.03716	3.07017	629.49846		!TNT - 2,4,6-TNT
16.349	VV	158.20047	3.69020	583.79175		!4AM - 4AM26DNT
17.277	VV	193.27187	3.14203	607.26566		!2AM - 2AM26DNT
18.315	VV	99.55354	4.32190	430.26058		!26N - 2,6-DNT
18.896	VB	321.85022	2.17469	699.92376		!24N - 2,4-DNT
22.261	PV	119.74194	4.81063	576.03460		!2NT - 2-Nitrotoluene
23.735	VV	114.00700	5.32548	607.14145		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0018.D Sample Name: 130228-08S2X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.582	VB	135.84723	4.45045	604.58083		!3NT - 3-Nitrotoluene

Totals : 8678.91102

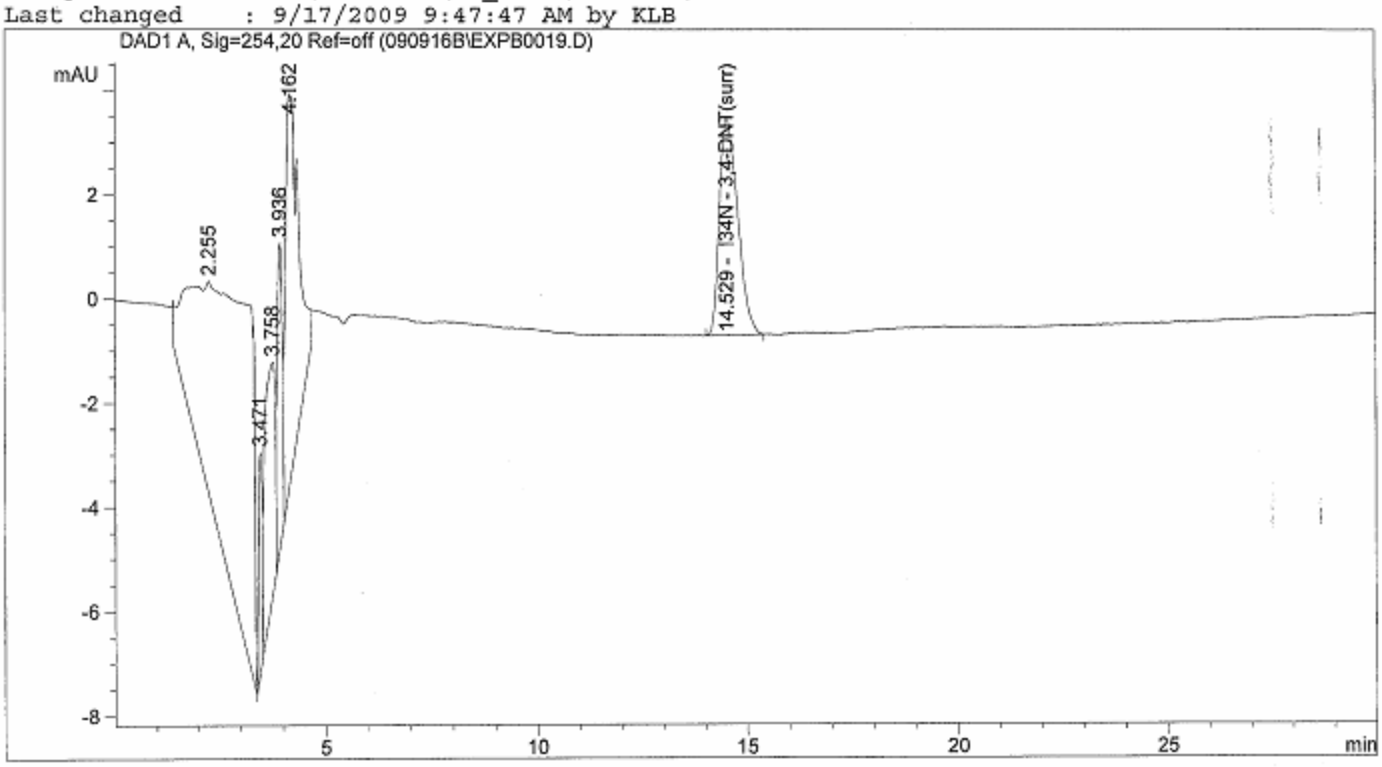
Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0019.D Sample Name: 130230-06X2

```
==================================================================
Injection Date  : 9/16/2009 7:17:33 PM          Seq. Line :  19
Sample Name     : 130230-06X2                    Location : Vial 19
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.529	PB	126.58882	4.50288	570.01370		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0019.D Sample Name: 130230-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 570.01370

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0020.D Sample Name: 130231-06X2

```
==================================================================
Injection Date  : 9/16/2009 7:51:17 PM          Seq. Line :  20
Sample Name     : 130231-06X2                    Location : Vial 20
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
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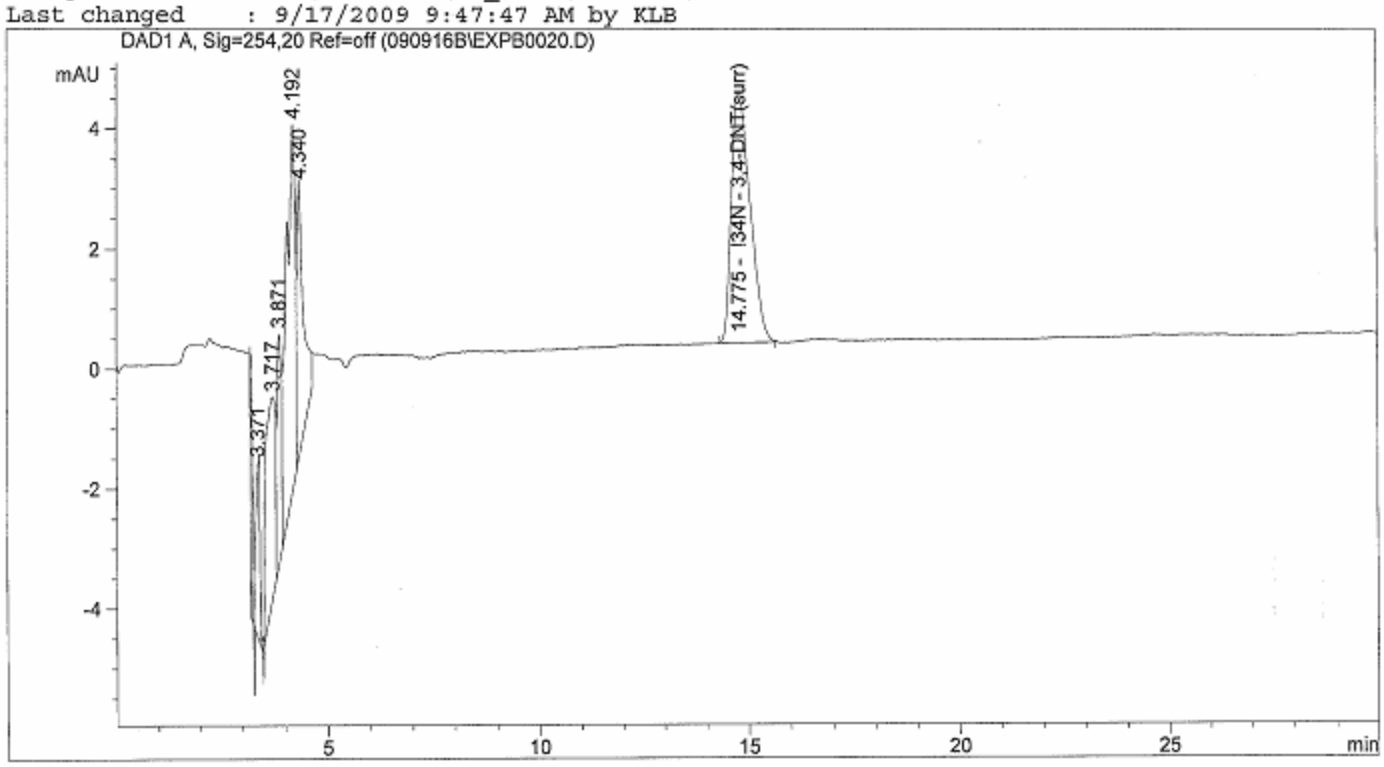



```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.775	BB	130.41936	4.51046	588.25152		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0020.D Sample Name: 130231-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 588.25152

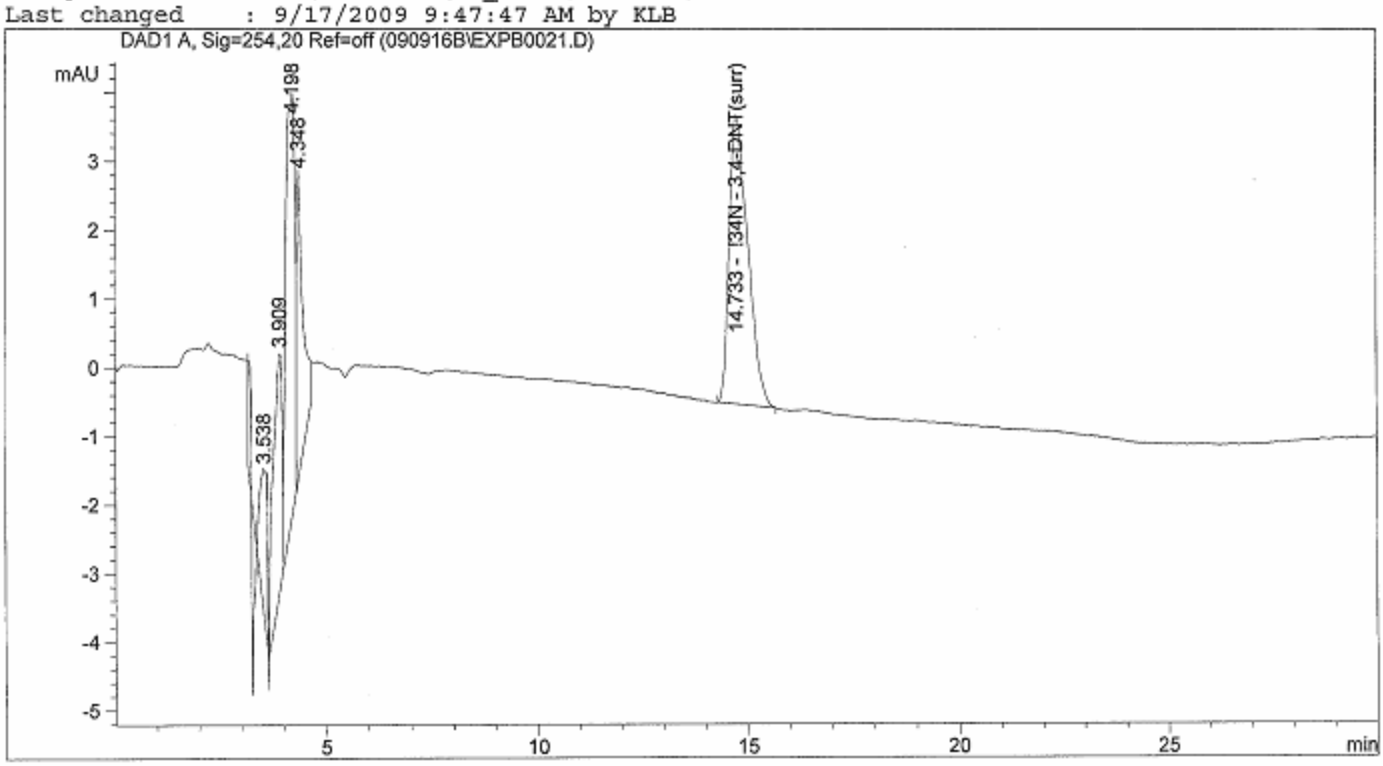
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0021.D Sample Name: 130232-06X2

```
==================================================================
Injection Date  : 9/16/2009 8:25:02 PM          Seq. Line :  21
Sample Name     : 130232-06X2                    Location : Vial 21
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.733	PB	129.16020	4.50802	582.25647		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121583

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0021.D Sample Name: 130232-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 582.25647

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0022.D Sample Name: 130233-06X2

```
==================================================================
Injection Date  : 9/16/2009 8:58:46 PM          Seq. Line :  22
Sample Name     : 130233-06X2                    Location : Vial 22
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
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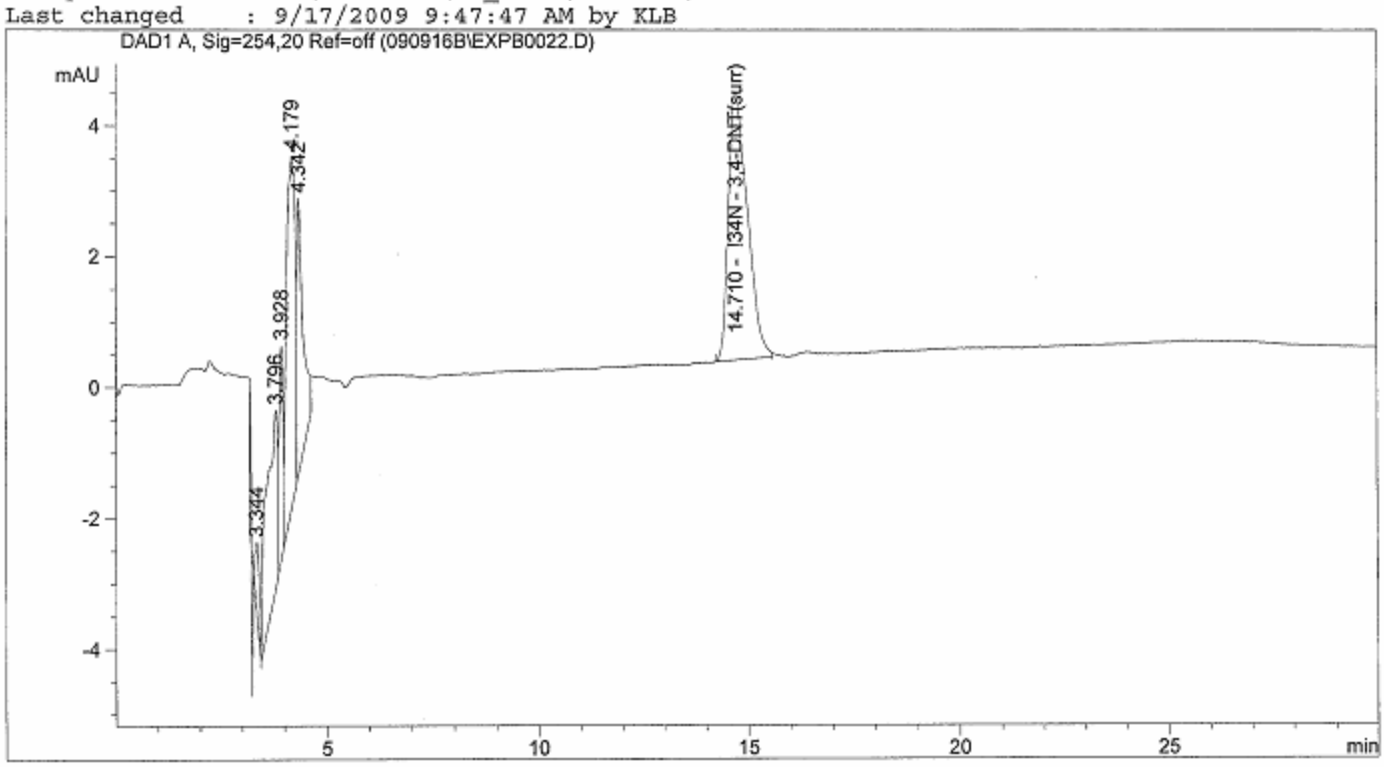



```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.710	BB	128.06175	4.50585	577.02657		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0022.D Sample Name: 130233-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 577.02657

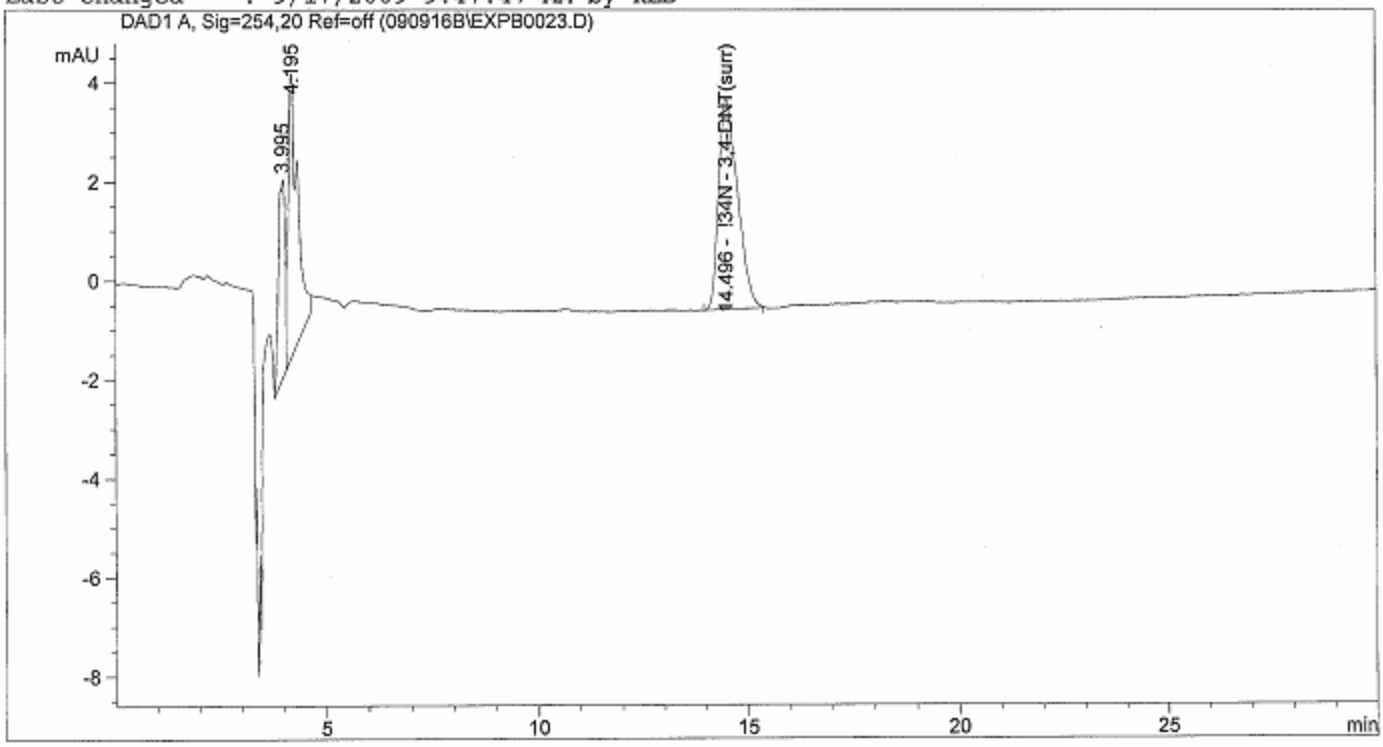
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0023.D Sample Name: 130234-06X2

```
==================================================================
Injection Date  : 9/16/2009 9:32:31 PM          Seq. Line :  23
Sample Name     : 130234-06X2                    Location : Vial 23
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.496	PB	134.46942	4.51801	607.53454		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0023.D Sample Name: 130234-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 607.53454

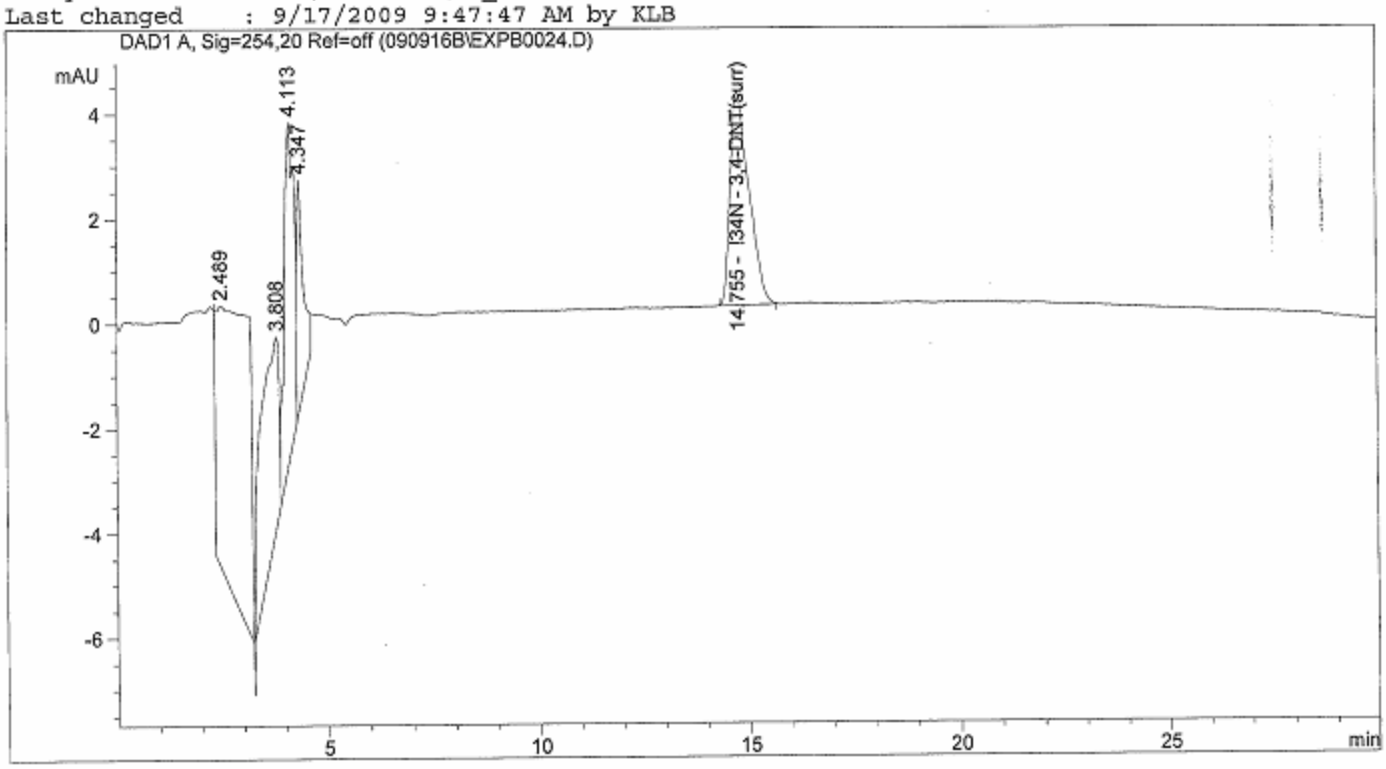
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0024.D Sample Name: 130235-06X2

```
==================================================================
Injection Date  : 9/16/2009 10:06:16 PM          Seq. Line :  24
Sample Name     : 130235-06X2                     Location : Vial 24
Acq. Operator   : KLB                                  Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.755	BB	127.58015	4.50488	574.73360		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121595

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0024.D Sample Name: 130235-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 574.73360

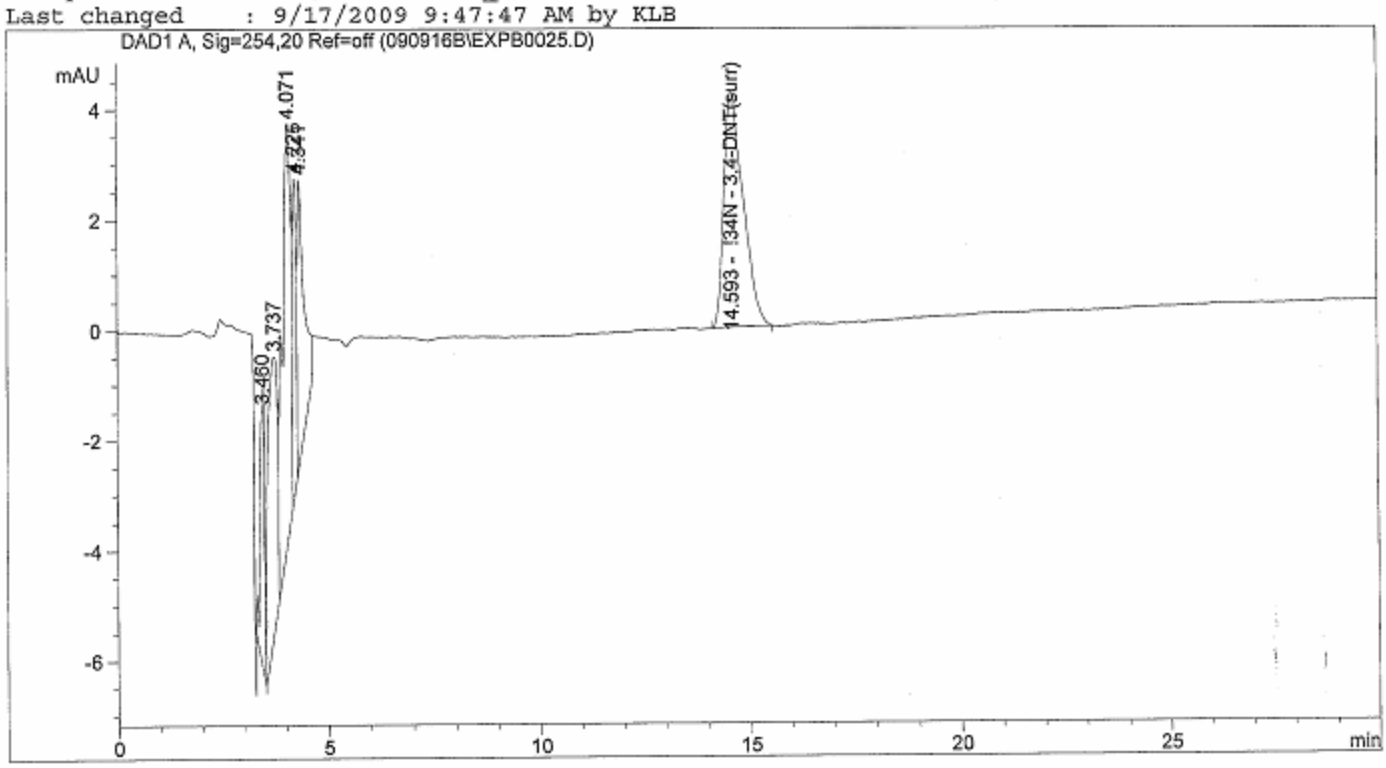
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0025.D Sample Name: 130236-06X2

Injection Date	: 9/16/2009 10:40:01 PM	Seq. Line :	25
Sample Name	: 130236-06X2	Location :	Vial 25
Acq. Operator	: KLB	Inj :	1
Acq. Instrument	: 3M_1090	Inj Volume :	10 µl
Sequence File	: C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S		
Acq. Method	: C:\HPLCDATA\3M_1090\METHODS\8330OLD.M		
Last changed	: 9/16/2009 9:08:57 AM by KLB		
Analysis Method	: C:\HPLCDATA\3M_1090\METHODS\8330OLD.M		
Last changed	: 9/17/2009 9:47:47 AM by KLB		



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	9/17/2009 9:47:19 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.593	BP	136.16417	4.52104	615.60352		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121599

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0025.D Sample Name: 130236-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 615.60352

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data Usability Summary
LHAAP-19
Lab Project No. 455812

Introduction

Regulatory Compliance & Guidance (RCG) reviewed one data package (Project No. 455812) from Ana-Lab Corporation. The data package was reviewed following guidance (Consistency Document[1] and TRRP-13[2]) prepared by the Texas Commission on Environmental Quality (TCEQ) and the equivalent sections of engineering manual (EM) 200-1-10[3] prepared by the US Army Corps of Engineers (USACE).

Intended Use of Data

The intended use of the data is to support a risk-based closure of the LHAAP-19 under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) consistent with requirements of Title 30 Texas Administrative Code (TAC) §335.8 (relating to closure and remediation).

Data Package Content

In order to ensure data quality, a TRRP-13 reporting package was provided by the laboratory. The data package included the following:

- completed chain of custody form,
- analytical results,
- sample preparation chronology,
- signature page, and
- quality control data

Chain of Custody Form

Nine (9) soil samples were collected on September 2, 2009 from the Longhorn Army Ammunition Plant (LHAAP) Site 19 in Karnack, TX (Site). According to the chain of custody form, the soil samples were to be analyzed for perchlorate and explosives. One sample (B5 0.5 to 1 ft) was identified as the matrix spike / matrix spike duplicate (MS/MSD) for perchlorate and explosives. One sample (B10 14 to 15 ft) was placed on hold pending detections in the overlying sample (B10 11.5 to 12).

Analytical Methods, Preservation, and Holding Times

Perchlorate was analyzed using analytical method 314.0 as described in the *Determination of Perchlorate in Drinking Water using Ion Chromatography.*[4] Explosives were analyzed using Method 8330 as described in the *Test Methods for Evaluating Solid Waste, Third Edition, September 1986 and Updates I, II, IIA, IIB, and III* (SW-846). These analytical methods were specified in the TCEQ-approved Work Plan[5] for this project.

---

[1] TCEQ. 1998. Interoffice Memorandum regarding Implementation of the Existing Risk Reduction Rule. July 23.
[2] TCEQ. 2002. Review and Reporting COC Concentration Data. RG366/TRRP-13. December.
[3] USACE. 2005. Guidance for Evaluating Performance-Based Chemical Data. EM 200-1-10. June 30. http://140.194.76.129/publications/eng-manuals/em200-1-10/entire.pdf
[4] EPA. 1999. Method 314.0 Determination of Perchlorate in Drinking Water Using Ion Chromatography. Rev. 1.0. November.
[5] USACE. 2009. Landfill Closure Assessment Work Plan for the Construction & Demolition Debris Landfill (LHAAP-19), Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas. August 5.

EPA (1999) specifies that perchlorate samples do not need to be preserved and the holding time is 28 days. The samples were stored on ice until delivered to the lab. The samples were analyzed on September 9, 2009. Preparation and analyses for perchlorate were compliant with the holding times.

USACE (2001)[6] specifies that samples (solid) submitted for Method 8330 should be cooled to 4°C, extracted within 14 days and analyzed within 40 days of extraction. The samples were stored on ice until delivered to the lab. The samples were analyzed on September 16, 2009. Preparation and analysis were compliant with the preservation requirements and holding times.

Quality Control

Blanks

Blanks are used to determine if the samples may have been contaminated as the result of transportation or laboratory practices. If an analyte is detected in a blank, then a detected result in an associated sample may not be representative of actual site conditions.

Perchlorate and explosives were not detected in the laboratory blanks.

Laboratory Control Samples

According to the Environmental Protection Agency (EPA)[7], "The primary purpose of the laboratory control sample (LCS) is to demonstrate that the laboratory can perform the overall analytical approach in a matrix free of interferences (e.g, in reagent water, clean sand, or another suitable reference matrix)." The percent recovery indicates the accuracy of the lab and whether the data is biased (high or low). The relative percent difference (RPD) indicates the laboratory's ability to reproduce the data (precision).

The lowest and highest percent recoveries are listed in Table 1. The project control limits for perchlorate were taken from Table G-3 of the Department of Defense (DOD) Handbook for Perchlorate (DoD, 2007)[8]. Project control limits for explosives were based on USACE, 2005. Since the laboratory control limits vary for each individual parameter, the widest range is listed for each test method.

The control limits were met except for RDX (159). RDX was not detected in any of the associated samples. According to Table D-2 (TCEQ, 2002), the associated results do not need to be qualified.

[6] USACE. 2001. Engineering and Design – Requirements for the Preparation of Sampling and Analysis Plans. Publication EM 200-1-3. February 1.

[7] EPA. 2009. Batch Sizes and QC Questions. Downloaded from web page on December 4. http://www.epa.gov/osw/hazard/testmethods/faq/faqs_qc.htm#Spike

[8] DOD. 2007. Perchlorate Handbook. August. http://www.navylabs.navy.mil/Archive/DODPerchlorateHandbookR1C1.pdf

Table 1 LCS Percent Recoveries Compared to Project and Laboratory Control Limits			
Method Description	Percent Recovery	Project Control Limits (% Recovery)	Laboratory Control Limits (% Recovery)
Perchlorate	102	80-120	90-110
Explosives	107-159	80-120	70-130

Matrix spike and matrix spike duplicate (MS/MSD)

The MS/MSD results measure a method's performance relative to the specific sample matrix of interest (EPA, 2009). If the percent recoveries and relative percent differences (RPDs) for the MS/MSD are similar to those of the LCS/LCSDs, then matrix interference is unlikely.

Project limits were conservatively set to those of the LCS (USACE, 2005). Project sample 130228 (B5 0.5 to 1) was used as the MS/MSD for explosives. The control limits were met except for 2,4-dinitrotoluene (DNT). The percent recoveries for the MS and MSD were high (140 and 141, respectively). The associated data may be biased high due to matrix interference. 2,4 DNT was not detected in the samples. No further action is warranted.

The laboratory did not analyze an MS/MSD for perchlorate. This is a variance from the chain of custody form. Non-project samples were used as the MS/MSD. Since non-project samples were used, the MS/MSD data was not used to qualify the analytical results.

Surrogate Recoveries

Surrogates are similar in chemical composition to the organic analytes of interest. The surrogates are spiked into environmental and batch QC samples prior to sample preparation and analysis. Surrogate recoveries are used to evaluate potential bias that could have been introduced by the preparatory procedures and/or the analysis (TCEQ, 2002) and to evaluate matrix interference on a sample-specific basis (USACE, 2001).

Project limits (USACE, 2005) used for surrogate recoveries are:

Purge and trap organics: 80–120%
Extractable organics: 60–140%

The laboratory control limits were 70 to 130% for percent recovery. Thirteen samples were spiked with concentrations of 3, 4-DNT ranging from 500 to 5000 ug/kg. The percent recoveries were within the control limits except in one sample. The sample was an LCS and the percent recovery was high (143%).

Analytical Results

Detected
Explosives and perchlorate were not detected in any environmental sample.

Non-detected
Non-detected results were reported as less than the reporting limit (RL). The associated narrative states that the RL is equivalent to the sample quantitation limit (SQL) and the RL is "at or above the method detection limit (MDL)".

Explosives were not detected in any of the associated samples. The SQLs for several of the analytes exceeded the GWP for residential land use. The laboratory reviewed the raw data[9] for explosives and "did not see any areas where explosives were present below [the] reporting limits".

Perchlorate was not detected in any of the associated samples. The SQLs were less than the applicable regulatory standards based on residential land use.

[9] Electronic mail from Tracey Arvel (Ana-lab) to Phyllis Primrose (RCG) on January 14, 2010.

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Analytical Results

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Report Table of Contents

Account
ALA4

Project
455812

LAAAP19 Landfill Closure Assessment

This report consists of this Table of Contents and the following pages:

Report Name	Description	Pages
455812_r03_03_ProjectResults	Ana-Lab Project P:455812 C:ALA4 Project Results	11
455812_r10_05_PROJQCG	Ana-Lab Project P:455812 C:ALA4 Project Quality Control Groups	5
455812_r99_09_CoC_ALA4_1_of_1	Ana-Lab CoC ALA4 455812_1_of_1	2
	Total Pages:	18

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Results

Printed: 09/22/2009

Account **ALA4-C**

Project **455812**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LAAAP19 Landfill Closure Assessment

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
130228	**B5 0.5 - 1 MS/MSD**					*Received:*	09/02/2009
	Soil	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/02/2009	08:00
	EPA 314.0			*Analyzed:*	*GDG 09/09/2009*	*0301*	*QCgroup 333838*
z	**Perchlorate (water extractable)**	**<0.0488 ***	**mg/kg**	0.0488		7790-98-9	03
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC 09/09/2009*	*1407*	*QCgroup 333695*
AN	**Total Solids**	**81.9**	**%**	0.1			01
	SW-846 8330			*Analyzed:*	*KLB 09/16/2009*	*1736*	*QCgroup 334832*
AN	**1,3,5 Trinitrobenzene**	**<1220 ***	**ug/kg**	1220		99-35-4	06
AN	**2,6 Dinitrotoluene**	**<1220 ***	**ug/kg**	1220		606-20-2	06
AN	**1,3-Dinitrobenzene (DNB)**	**<1220 ***	**ug/kg**	1220		99-65-0	06
AN	**2,4-Dinitrotoluene**	**<1220 ***	**ug/kg**	1220		121-14-2	06
AN	**2-Amino-4,6-dinitrotoluene**	**<1220 ***	**ug/kg**	1220		35572-78-2	06
AN	**4-Amino-2,6-dinitrotoluene**	**<1220 ***	**ug/kg**	1220		1946-51-0	06
AN	**HMX**	**<1220 ***	**ug/kg**	1220		2691-41-0	06
AN	**Nitrobenzene**	**<1220 ***	**ug/kg**	1220		98-95-3	06
AN	**2-Nitrotoluene**	**<1220 ***	**ug/kg**	1220		88-72-2	06
AN	**3-Nitrotoluene**	**<1220 ***	**ug/kg**	1220		99-08-1	06
AN	**4-Nitrotoluene**	**<1220 ***	**ug/kg**	1220		99-99-0	06
AN	**RDX**	**<1220 ***	**ug/kg**	1220		121-82-4	06
AN	**Tetryl**	**<1220 ***	**ug/kg**	1220		479-45-8	06
AN	**2,4,6-Trinitrotoluene**	**<1220 ***	**ug/kg**	1220		118-96-7	06
	* Dry Weight Basis						
130230	**B5 14 - 14.5**					*Received:*	09/02/2009
	Soil	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/02/2009	08:15
	EPA 314.0			*Analyzed:*	*GDG 09/09/2009*	*0440*	*QCgroup 333838*
z	**Perchlorate (water extractable)**	**<0.0469 ***	**mg/kg**	0.0469		7790-98-9	03
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC 09/09/2009*	*1407*	*QCgroup 333695*
AN	**Total Solids**	**85.3**	**%**	0.1			01
	SW-846 8330			*Analyzed:*	*KLB 09/16/2009*	*1917*	*QCgroup 334832*
AN	**1,3,5 Trinitrobenzene**	**<1170 ***	**ug/kg**	1170		99-35-4	04
AN	**2,6 Dinitrotoluene**	**<1170 ***	**ug/kg**	1170		606-20-2	04

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Results

Printed: 09/22/2009

Account **ALA4-C**

Project **455812**

Report To

Greg Osuna
Alamo Environmental
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San Antonio, TX 78205-

LAAAP19 Landfill Closure Assessment

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
130230	**B5 14 - 14.5**					*Received:*	09/02/2009
	Soil	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/02/2009	08:15
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*1917*	*QCgroup* *334832*
AN	**1,3-Dinitrobenzene (DNB)**	**<1170 ***	**ug/kg**	1170		99-65-0	04
AN	**2,4-Dinitrotoluene**	**<1170 ***	**ug/kg**	1170		121-14-2	04
AN	**2-Amino-4,6-dinitrotoluene**	**<1170 ***	**ug/kg**	1170		35572-78-2	04
AN	**4-Amino-2,6-dinitrotoluene**	**<1170 ***	**ug/kg**	1170		1946-51-0	04
AN	**HMX**	**<1170 ***	**ug/kg**	1170		2691-41-0	04
AN	**Nitrobenzene**	**<1170 ***	**ug/kg**	1170		98-95-3	04
AN	**2-Nitrotoluene**	**<1170 ***	**ug/kg**	1170		88-72-2	04
AN	**3-Nitrotoluene**	**<1170 ***	**ug/kg**	1170		99-08-1	04
AN	**4-Nitrotoluene**	**<1170 ***	**ug/kg**	1170		99-99-0	04
AN	**RDX**	**<1170 ***	**ug/kg**	1170		121-82-4	04
AN	**Tetryl**	**<1170 ***	**ug/kg**	1170		479-45-8	04
AN	**2,4,6-Trinitrotoluene**	**<1170 ***	**ug/kg**	1170		118-96-7	04
	* Dry Weight Basis						
130231	**B6 1 - 1.5**					*Received:*	09/02/2009
	Soil	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/02/2009	13:48
	EPA 314.0		*Analyzed:*	*GDG*	*09/09/2009*	*0514*	*QCgroup* *333838*
z	**Perchlorate (water extractable)**	**<0.0471 ***	**mg/kg**	0.0471		7790-98-9	03
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.		*Analyzed:*	*MLC*	*09/09/2009*	*1407*	*QCgroup* *333695*
AN	**Total Solids**	**85.0**	**%**	0.1			01
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*1951*	*QCgroup* *334832*
AN	**1,3,5 Trinitrobenzene**	**<1180 ***	**ug/kg**	1180		99-35-4	04
AN	**2,6 Dinitrotoluene**	**<1180 ***	**ug/kg**	1180		606-20-2	04
AN	**1,3-Dinitrobenzene (DNB)**	**<1180 ***	**ug/kg**	1180		99-65-0	04
AN	**2,4-Dinitrotoluene**	**<1180 ***	**ug/kg**	1180		121-14-2	04
AN	**2-Amino-4,6-dinitrotoluene**	**<1180 ***	**ug/kg**	1180		35572-78-2	04
AN	**4-Amino-2,6-dinitrotoluene**	**<1180 ***	**ug/kg**	1180		1946-51-0	04
AN	**HMX**	**<1180 ***	**ug/kg**	1180		2691-41-0	04
AN	**Nitrobenzene**	**<1180 ***	**ug/kg**	1180		98-95-3	04
AN	**2-Nitrotoluene**	**<1180 ***	**ug/kg**	1180		88-72-2	04
AN	**3-Nitrotoluene**	**<1180 ***	**ug/kg**	1180		99-08-1	04
AN	**4-Nitrotoluene**	**<1180 ***	**ug/kg**	1180		99-99-0	04

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Results

Printed: 09/22/2009

Account **ALA4-C**

Project **455812**

Report To

Greg Osuna
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LAAAP19 Landfill Closure Assessment

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
130231	**B6 1 - 1.5**					*Received:*	09/02/2009
	Soil	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/02/2009	13:48
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*1951* *QCgroup* *334832*
AN	**RDX**	**<1180 ***	**ug/kg**	1180		121-82-4	04
AN	**Tetryl**	**<1180 ***	**ug/kg**	1180		479-45-8	04
AN	**2,4,6-Trinitrotoluene**	**<1180 ***	**ug/kg**	1180		118-96-7	04
	* Dry Weight Basis						
130232	**B6 14 - 14.5**					*Received:*	09/02/2009
	Soil	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/02/2009	14:06
	EPA 314.0			*Analyzed:*	*GDG*	*09/09/2009*	*0547* *QCgroup* *333838*
z	**Perchlorate (water extractable)**	**<0.046 ***	**mg/kg**	0.046		7790-98-9	03
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/09/2009*	*1407* *QCgroup* *333695*
AN	**Total Solids**	**86.9**	**%**	0.1			02
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*2025* *QCgroup* *334832*
AN	**1,3,5 Trinitrobenzene**	**<1150 ***	**ug/kg**	1150		99-35-4	04
AN	**2,6 Dinitrotoluene**	**<1150 ***	**ug/kg**	1150		606-20-2	04
AN	**1,3-Dinitrobenzene (DNB)**	**<1150 ***	**ug/kg**	1150		99-65-0	04
AN	**2,4-Dinitrotoluene**	**<1150 ***	**ug/kg**	1150		121-14-2	04
AN	**2-Amino-4,6-dinitrotoluene**	**<1150 ***	**ug/kg**	1150		35572-78-2	04
AN	**4-Amino-2,6-dinitrotoluene**	**<1150 ***	**ug/kg**	1150		1946-51-0	04
AN	**HMX**	**<1150 ***	**ug/kg**	1150		2691-41-0	04
AN	**Nitrobenzene**	**<1150 ***	**ug/kg**	1150		98-95-3	04
AN	**2-Nitrotoluene**	**<1150 ***	**ug/kg**	1150		88-72-2	04
AN	**3-Nitrotoluene**	**<1150 ***	**ug/kg**	1150		99-08-1	04
AN	**4-Nitrotoluene**	**<1150 ***	**ug/kg**	1150		99-99-0	04
AN	**RDX**	**<1150 ***	**ug/kg**	1150		121-82-4	04
AN	**Tetryl**	**<1150 ***	**ug/kg**	1150		479-45-8	04
AN	**2,4,6-Trinitrotoluene**	**<1150 ***	**ug/kg**	1150		118-96-7	04
	* Dry Weight Basis						
130233	**B8 2.75 - 3**					*Received:*	09/02/2009
	Soil	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/02/2009	14:25

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Results

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Account **ALA4-C**

Project **455812**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LAAAP19 Landfill Closure Assessment

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
130233	**B8 2.75 - 3**					*Received:*	09/02/2009
	Soil	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/02/2009	14:25
	EPA 314.0			*Analyzed:*	*GDG 09/09/2009*	*0620 QCgroup*	*333838*
z	**Perchlorate (water extractable)**	**<0.0502 ***	**mg/kg**	0.0502		7790-98-9	03
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC 09/09/2009*	*1407 QCgroup*	*333695*
AN	**Total Solids**	**79.7**	**%**	0.1			01
	SW-846 8330			*Analyzed:*	*KLB 09/16/2009*	*2058 QCgroup*	*334832*
AN	**1,3,5 Trinitrobenzene**	**<1250 ***	**ug/kg**	1250		99-35-4	04
AN	**2,6 Dinitrotoluene**	**<1250 ***	**ug/kg**	1250		606-20-2	04
AN	**1,3-Dinitrobenzene (DNB)**	**<1250 ***	**ug/kg**	1250		99-65-0	04
AN	**2,4-Dinitrotoluene**	**<1250 ***	**ug/kg**	1250		121-14-2	04
AN	**2-Amino-4,6-dinitrotoluene**	**<1250 ***	**ug/kg**	1250		35572-78-2	04
AN	**4-Amino-2,6-dinitrotoluene**	**<1250 ***	**ug/kg**	1250		1946-51-0	04
AN	**HMX**	**<1250 ***	**ug/kg**	1250		2691-41-0	04
AN	**Nitrobenzene**	**<1250 ***	**ug/kg**	1250		98-95-3	04
AN	**2-Nitrotoluene**	**<1250 ***	**ug/kg**	1250		88-72-2	04
AN	**3-Nitrotoluene**	**<1250 ***	**ug/kg**	1250		99-08-1	04
AN	**4-Nitrotoluene**	**<1250 ***	**ug/kg**	1250		99-99-0	04
AN	**RDX**	**<1250 ***	**ug/kg**	1250		121-82-4	04
AN	**Tetryl**	**<1250 ***	**ug/kg**	1250		479-45-8	04
AN	**2,4,6-Trinitrotoluene**	**<1250 ***	**ug/kg**	1250		118-96-7	04
	* Dry Weight Basis						
130234	**B8 13 - 14**					*Received:*	09/02/2009
	Soil	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/02/2009	14:48
	EPA 314.0			*Analyzed:*	*GDG 09/09/2009*	*0653 QCgroup*	*333838*
z	**Perchlorate (water extractable)**	**<0.0454 ***	**mg/kg**	0.0454		7790-98-9	03
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC 09/09/2009*	*1650 QCgroup*	*333773*
AN	**Total Solids**	**88.1**	**%**	0.1			01
	SW-846 8330			*Analyzed:*	*KLB 09/16/2009*	*2132 QCgroup*	*334832*
AN	**1,3,5 Trinitrobenzene**	**<1140 ***	**ug/kg**	1140		99-35-4	04
AN	**2,6 Dinitrotoluene**	**<1140 ***	**ug/kg**	1140		606-20-2	04

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Project **455812**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
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Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
130234	**B8 13 - 14**					*Received:*	09/02/2009
	Soil	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/02/2009	14:48
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*2132* *QCgroup* *334832*
AN	**1,3-Dinitrobenzene (DNB)**	**<1140 ***	**ug/kg**	1140		99-65-0	04
AN	**2,4-Dinitrotoluene**	**<1140 ***	**ug/kg**	1140		121-14-2	04
AN	**2-Amino-4,6-dinitrotoluene**	**<1140 ***	**ug/kg**	1140		35572-78-2	04
AN	**4-Amino-2,6-dinitrotoluene**	**<1140 ***	**ug/kg**	1140		1946-51-0	04
AN	**HMX**	**<1140 ***	**ug/kg**	1140		2691-41-0	04
AN	**Nitrobenzene**	**<1140 ***	**ug/kg**	1140		98-95-3	04
AN	**2-Nitrotoluene**	**<1140 ***	**ug/kg**	1140		88-72-2	04
AN	**3-Nitrotoluene**	**<1140 ***	**ug/kg**	1140		99-08-1	04
AN	**4-Nitrotoluene**	**<1140 ***	**ug/kg**	1140		99-99-0	04
AN	**RDX**	**<1140 ***	**ug/kg**	1140		121-82-4	04
AN	**Tetryl**	**<1140 ***	**ug/kg**	1140		479-45-8	04
AN	**2,4,6-Trinitrotoluene**	**<1140 ***	**ug/kg**	1140		118-96-7	04
	* Dry Weight Basis						
130235	**B10 1 - 2**					*Received:*	09/02/2009
	Soil	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/02/2009	15:07
	EPA 314.0			*Analyzed:*	*GDG*	*09/09/2009*	*0726* *QCgroup* *333838*
z	**Perchlorate (water extractable)**	**<0.0475 ***	**mg/kg**	0.0475		7790-98-9	03
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/09/2009*	*1650* *QCgroup* *333773*
AN	**Total Solids**	**84.2**	**%**	0.1			01
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*2206* *QCgroup* *334832*
AN	**1,3,5 Trinitrobenzene**	**<1190 ***	**ug/kg**	1190		99-35-4	04
AN	**2,6 Dinitrotoluene**	**<1190 ***	**ug/kg**	1190		606-20-2	04
AN	**1,3-Dinitrobenzene (DNB)**	**<1190 ***	**ug/kg**	1190		99-65-0	04
AN	**2,4-Dinitrotoluene**	**<1190 ***	**ug/kg**	1190		121-14-2	04
AN	**2-Amino-4,6-dinitrotoluene**	**<1190 ***	**ug/kg**	1190		35572-78-2	04
AN	**4-Amino-2,6-dinitrotoluene**	**<1190 ***	**ug/kg**	1190		1946-51-0	04
AN	**HMX**	**<1190 ***	**ug/kg**	1190		2691-41-0	04
AN	**Nitrobenzene**	**<1190 ***	**ug/kg**	1190		98-95-3	04
AN	**2-Nitrotoluene**	**<1190 ***	**ug/kg**	1190		88-72-2	04
AN	**3-Nitrotoluene**	**<1190 ***	**ug/kg**	1190		99-08-1	04
AN	**4-Nitrotoluene**	**<1190 ***	**ug/kg**	1190		99-99-0	04

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Results

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Account **ALA4-C**

Project **455812**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

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Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
130235	**B10 1 - 2**					*Received:*	09/02/2009
	Soil	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/02/2009	15:07
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*2206*
AN	**RDX**	**<1190 ***	**ug/kg**	1190		121-82-4	04
AN	**Tetryl**	**<1190 ***	**ug/kg**	1190		479-45-8	04
AN	**2,4,6-Trinitrotoluene**	**<1190 ***	**ug/kg**	1190		118-96-7	04
	* Dry Weight Basis						
130236	**B10 11.5 - 12**					*Received:*	09/02/2009
	Soil	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/02/2009	15:17
	EPA 314.0			*Analyzed:*	*GDG*	*09/09/2009*	*0800*
z	**Perchlorate (water extractable)**	**<0.0491 ***	**mg/kg**	0.0491		7790-98-9	03
	* Dry Weight Basis						
	SM 2540 G, 20th Ed.			*Analyzed:*	*MLC*	*09/09/2009*	*1650*
AN	**Total Solids**	**81.4**	**%**	0.1			01
	SW-846 8330			*Analyzed:*	*KLB*	*09/16/2009*	*2240*
AN	**1,3,5 Trinitrobenzene**	**<1230 ***	**ug/kg**	1230		99-35-4	04
AN	**2,6 Dinitrotoluene**	**<1230 ***	**ug/kg**	1230		606-20-2	04
AN	**1,3-Dinitrobenzene (DNB)**	**<1230 ***	**ug/kg**	1230		99-65-0	04
AN	**2,4-Dinitrotoluene**	**<1230 ***	**ug/kg**	1230		121-14-2	04
AN	**2-Amino-4,6-dinitrotoluene**	**<1230 ***	**ug/kg**	1230		35572-78-2	04
AN	**4-Amino-2,6-dinitrotoluene**	**<1230 ***	**ug/kg**	1230		1946-51-0	04
AN	**HMX**	**<1230 ***	**ug/kg**	1230		2691-41-0	04
AN	**Nitrobenzene**	**<1230 ***	**ug/kg**	1230		98-95-3	04
AN	**2-Nitrotoluene**	**<1230 ***	**ug/kg**	1230		88-72-2	04
AN	**3-Nitrotoluene**	**<1230 ***	**ug/kg**	1230		99-08-1	04
AN	**4-Nitrotoluene**	**<1230 ***	**ug/kg**	1230		99-99-0	04
AN	**RDX**	**<1230 ***	**ug/kg**	1230		121-82-4	04
AN	**Tetryl**	**<1230 ***	**ug/kg**	1230		479-45-8	04
AN	**2,4,6-Trinitrotoluene**	**<1230 ***	**ug/kg**	1230		118-96-7	04
	* Dry Weight Basis						

Sample Preparation

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Sample Preparation

130228 **B5 0.5 - 1 MS/MSD** *Received:* 09/02/2009

			Analyzed:	*AAJ*	*09/03/2009*			
	Bottle Temperature on Receipt	**4**	**degrees**					01
	Bottle Temperature on Receipt	**4**	**degrees**					02
	Calculation		*Analyzed:*	*CAL*	*09/17/2009*	*13:12*		
	As Received to Dry Weight Basis	**Calculated**						
	SW8330		*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup*	*333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*1736*		
AN	**Explosives Expansion Code**	**Confirm**						06
	SW-846 9056		*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

130230 **B5 14 - 14.5** *Received:* 09/02/2009

			Analyzed:	*AAJ*	*09/03/2009*			
	Bottle Temperature on Receipt	**4**	**degrees**					01
	Bottle Temperature on Receipt	**4**	**degrees**					02
	Calculation		*Analyzed:*	*CAL*	*09/17/2009*	*13:12*		
	As Received to Dry Weight Basis	**Calculated**						
	SW8330		*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup*	*333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*1917*		
AN	**Explosives Expansion Code**	**Confirm**						06
	SW-846 9056		*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

130231 **B6 1 - 1.5** *Received:* 09/02/2009

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Account **ALA4-C**

Project **455812**

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Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LAAAP19 Landfill Closure Assessment

Sample Preparation

130231 **B6 1 - 1.5** *Received:* 09/02/2009

			Analyzed:	*AAJ*	*09/03/2009*			
	Bottle Temperature on Receipt	**4**	**degrees**					01
	Bottle Temperature on Receipt	**4**	**degrees**					02
	Calculation		*Analyzed:*	*CAL*	*09/17/2009*	*13:12*		
	As Received to Dry Weight Basis	**Calculated**						
	SW8330		*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup*	*333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*1951*		
AN	**Explosives Expansion Code**	**Confirm**						06
	SW-846 9056		*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

130232 **B6 14 - 14.5** *Received:* 09/02/2009

			Analyzed:	*AAJ*	*09/03/2009*			
	Bottle Temperature on Receipt	**4**	**degrees**					01
	Bottle Temperature on Receipt	**4**	**degrees**					02
	Calculation		*Analyzed:*	*CAL*	*09/17/2009*	*13:12*		
	As Received to Dry Weight Basis	**Calculated**						
	SW8330		*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup*	*333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*2025*		
AN	**Explosives Expansion Code**	**Confirm**						06
	SW-846 9056		*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

130233 **B8 2.75 - 3** *Received:* 09/02/2009

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Account **ALA4-C**

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Report To

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Sample Preparation

130233 **B8 2.75 - 3** *Received:* 09/02/2009

			Analyzed:	*AAJ*	*09/03/2009*			
	Bottle Temperature on Receipt	**4**	**degrees**					01
	Bottle Temperature on Receipt	**4**	**degrees**					02
	Calculation		*Analyzed:*	*CAL*	*09/17/2009*	*13:12*		
	As Received to Dry Weight Basis	**Calculated**						
	SW8330		*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup*	*333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*2058*		
AN	**Explosives Expansion Code**	**Confirm**						06
	SW-846 9056		*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

130234 **B8 13 - 14** *Received:* 09/02/2009

			Analyzed:	*AAJ*	*09/03/2009*			
	Bottle Temperature on Receipt	**4**	**degrees**					01
	Bottle Temperature on Receipt	**4**	**degrees**					02
	Calculation		*Analyzed:*	*CAL*	*09/17/2009*	*13:12*		
	As Received to Dry Weight Basis	**Calculated**						
	SW8330		*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup*	*333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*2132*		
AN	**Explosives Expansion Code**	**Confirm**						06
	SW-846 9056		*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

130235 **B10 1 - 2** *Received:* 09/02/2009

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Sample Preparation

130235 **B10 1 - 2** *Received:* 09/02/2009

			Analyzed:	*AAJ*	*09/03/2009*			
	Bottle Temperature on Receipt	**4**	**degrees**					01
	Bottle Temperature on Receipt	**4**	**degrees**					02
	Calculation		*Analyzed:*	*CAL*	*09/17/2009*	*13:12*		
	As Received to Dry Weight Basis	**Calculated**						
	SW8330		*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup*	*333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*2206*		
AN	**Explosives Expansion Code**	**Confirm**						06
	SW-846 9056		*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

130236 **B10 11.5 - 12** *Received:* 09/02/2009

			Analyzed:	*AAJ*	*09/03/2009*			
	Bottle Temperature on Receipt	**4**	**degrees**					01
	Bottle Temperature on Receipt	**4**	**degrees**					02
	Calculation		*Analyzed:*	*CAL*	*09/17/2009*	*13:12*		
	As Received to Dry Weight Basis	**Calculated**						
	SW8330		*Analyzed:*	*TRP*	*09/08/2009*	*1000*	*QCgroup*	*333588*
AN	**Explosives Extraction: Solid**	**10/2**	**grams**					01
	SW-846 8330		*Analyzed:*	*KLB*	*09/16/2009*	*2240*		
AN	**Explosives Expansion Code**	**Confirm**						06
	SW-846 9056		*Analyzed:*	*LCY*	*09/08/2009*	*1000*	*QCgroup*	*333512*
AN	**Water Extract-Ion Chromatography**	**40/4**	**grams**					01

130238 **Temp Blank** *Received:* 09/02/2009

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Account	*Project*
ALA4-C	**455812**

Report To

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Sample Preparation

130238 **Temp Blank** *Received:* 09/02/2009

Analyzed: *AAJ* *09/03/2009*

Bottle Temperature on Receipt	**4**	**degrees**	01

Qualifiers:

We report results on an 'As Received' or wet basis unless marked 'Dry Weight'. Unless otherwise noted, testing was performed at Ana-lab's corporate laboratory that holds the following Federal and State certificates: Texas Department of Health Lead Firm Certificate 2110076, EPA National Lead Laboratory Accreditation Program #637.01, US Department of Agriculture Soil Import Permit S-37592, Texas Commisson on Environmental Quality Drinking Water Laboratory Certificate TX219, Texas Commission on Environmental Quality NELAP T104704201-06-TX, Oklahoma Department of Environmental Quality Drinking Water Certification Lab ID# D9913, EPA Lab Number TX00063, USEPA Approved Perchlorate Testing Lab, Oklahoma Department of Environmental Quality Laboratory Certificate 8125, Arkansas Department of Environmental Quality Certification #03-070-0, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) # LA030020, US Department of Energy Approved, State of Kansas Department of Health and Environment Waste Water and Solid/Hazardous Waste Cert. E-10365, Alabama Department of Environmental Management Drinking Water #41540. Ana-Lab is also accredited to the international ISO-17025 standard by the American Association for Laboratory Accreditation (A2LA Certificate # 0637-01). The Accredited column designates accreditation by U - UCMR2 (EPA), A -- A2LA, N -- NELAC, or z -- not covered under A2LA or NELAC scope of accreditation.

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RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number.

C. H. Whiteside, Ph.D., President

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com LELAP-accredited #02008

Quality Control

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Project 455812

333838 I Soil EPA 314.0

AWRL

Parameter	Reading	Known	Units	Recover%	Limits%	Out	File
Perchlorate (water extractable)	0.00389	0.00400	mg/kg	97.2	75.0 - 125		0011224431

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	Out	File
Perchlorate (water extractable)	333512	ND	0.000801	0.00400	mg/kg		0011224434

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	Out	File
Perchlorate (water extractable)	0.0228	0.0250	mg/kg	91.2	75.0 - 125		0011224448
Perchlorate (water extractable)	0.0240	0.0250	mg/kg	96.0	75.0 - 125		0011224462
Perchlorate (water extractable)	0.0250	0.0250	mg/kg	100	75.0 - 125		0011224433
Perchlorate (water extractable)	0.0257	0.0250	mg/kg	103	75.0 - 125		0011224430
Perchlorate (water extractable)	0.0967	0.100	mg/kg	96.7	75.0 - 125		0011224432
Perchlorate (water extractable)	0.0980	0.100	mg/kg	98.0	75.0 - 125		0011224447
Perchlorate (water extractable)	0.0984	0.100	mg/kg	98.4	75.0 - 125		0011224461
Perchlorate (water extractable)	0.108	0.100	mg/kg	108	75.0 - 125		0011224429

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File	Out
Perchlorate (water extractable)	333512	0.256	0.250	mg/kg	102	90.0 - 110	0011224435	

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Perchlorate (water extractable)	333512	0.256	0.239	0.250	90.0 - 110	102	95.6	mg/kg	6.48	14.0

334832 O Soil SW-846 8330

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	Out	File
1,3,5 Trinitrobenzene	333588	ND	38.2	100	ug/kg		0011244138
1,3-Dinitrobenzene (DNB)	333588	ND	49.1	100	ug/kg		0011244138
2,4,6-Trinitrotoluene	333588	ND	125	100	ug/kg		0011244138

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Quality Control

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Project 455812

334832 **O** **Soil** **SW-846 8330**

Blank

Parameter	*PrepSet*	*Reading*	*MDL*	*MQL*	*Units*	*Out*	*File*
2,4-Dinitrotoluene	333588	ND	89.3	100	ug/kg		0011244138
2,6 Dinitrotoluene	333588	ND	107	100	ug/kg		0011244138
2-Amino-4,6-dinitrotoluene	333588	ND	81.2	100	ug/kg		0011244138
2-Nitrotoluene	333588	ND	118	100	ug/kg		0011244138
3-Nitrotoluene	333588	ND	75.3	100	ug/kg		0011244138
4-Amino-2,6-dinitrotoluene	333588	ND	241	100	ug/kg		0011244138
4-Nitrotoluene	333588	ND	70.2	100	ug/kg		0011244138
HMX	333588	ND	93.5	100	ug/kg		0011244138
Nitrobenzene	333588	ND	85.3	100	ug/kg		0011244138
RDX	333588	ND	92.1	100	ug/kg		0011244138
Tetryl	333588	ND	84.1	100	ug/kg		0011244138

CCV

Parameter	*Reading*	*Known*	*Units*	*Recover%*	*Limits%*	*Out*	*File*
1,3,5 Trinitrobenzene	1210	1000	ug/kg	121	70.0 - 130		0011244150
1,3-Dinitrobenzene (DNB)	1180	1000	ug/kg	118	70.0 - 130		0011244150
2,4,6-Trinitrotoluene	1160	1000	ug/kg	116	70.0 - 130		0011244150
2,4-Dinitrotoluene	1340	1000	ug/kg	134	70.0 - 130	*	0011244150
2,6 Dinitrotoluene	1020	1000	ug/kg	102	70.0 - 130		0011244150
2-Amino-4,6-dinitrotoluene	1230	1000	ug/kg	123	70.0 - 130		0011244150
2-Nitrotoluene	1170	1000	ug/kg	117	70.0 - 130		0011244150
3-Nitrotoluene	1160	1000	ug/kg	116	70.0 - 130		0011244150
4-Amino-2,6-dinitrotoluene	1270	1000	ug/kg	127	70.0 - 130		0011244150
4-Nitrotoluene	1180	1000	ug/kg	118	70.0 - 130		0011244150
HMX	1160	1000	ug/kg	116	70.0 - 130		0011244150
Nitrobenzene	1210	1000	ug/kg	121	70.0 - 130		0011244150
RDX	1120	1000	ug/kg	112	70.0 - 130		0011244150
Tetryl	1140	1000	ug/kg	114	70.0 - 130		0011244150
1,3,5 Trinitrobenzene	550	500	ug/kg	110	70.0 - 130		0011244137
1,3,5 Trinitrobenzene	591	500	ug/kg	118	70.0 - 130		0011244163
1,3-Dinitrobenzene (DNB)	540	500	ug/kg	108	70.0 - 130		0011244137
1,3-Dinitrobenzene (DNB)	551	500	ug/kg	110	70.0 - 130		0011244163
2,4,6-Trinitrotoluene	446	500	ug/kg	89.2	70.0 - 130		0011244163
2,4,6-Trinitrotoluene	505	500	ug/kg	101	70.0 - 130		0011244137
2,4-Dinitrotoluene	526	500	ug/kg	105	70.0 - 130		0011244137
2,4-Dinitrotoluene	664	500	ug/kg	133	70.0 - 130	*	0011244163
2,6 Dinitrotoluene	398	500	ug/kg	79.6	70.0 - 130		0011244163
2,6 Dinitrotoluene	538	500	ug/kg	108	70.0 - 130		0011244137

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Quality Control

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Project 455812

334832 **O** **Soil** **SW-846 8330**

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	Out	File
2-Amino-4,6-dinitrotoluene	523	500	ug/kg	105	70.0 - 130		0011244137
2-Amino-4,6-dinitrotoluene	598	500	ug/kg	120	70.0 - 130		0011244163
2-Nitrotoluene	499	500	ug/kg	99.8	70.0 - 130		0011244137
2-Nitrotoluene	538	500	ug/kg	108	70.0 - 130		0011244163
3-Nitrotoluene	513	500	ug/kg	103	70.0 - 130		0011244137
3-Nitrotoluene	564	500	ug/kg	113	70.0 - 130		0011244163
4-Amino-2,6-dinitrotoluene	538	500	ug/kg	108	70.0 - 130		0011244137
4-Amino-2,6-dinitrotoluene	680	500	ug/kg	136	70.0 - 130	*	0011244163
4-Nitrotoluene	500	500	ug/kg	100	70.0 - 130		0011244137
4-Nitrotoluene	569	500	ug/kg	114	70.0 - 130		0011244163
HMX	531	500	ug/kg	106	70.0 - 130		0011244163
HMX	550	500	ug/kg	110	70.0 - 130		0011244137
Nitrobenzene	519	500	ug/kg	104	70.0 - 130		0011244137
Nitrobenzene	565	500	ug/kg	113	70.0 - 130		0011244163
RDX	505	500	ug/kg	101	70.0 - 130		0011244137
RDX	516	500	ug/kg	103	70.0 - 130		0011244163
Tetryl	525	500	ug/kg	105	70.0 - 130		0011244137
Tetryl	589	500	ug/kg	118	70.0 - 130		0011244163

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File	Out
1,3,5 Trinitrobenzene	333588	579	500	ug/kg	116	70.0 - 130	0011244139	
1,3-Dinitrobenzene (DNB)	333588	602	500	ug/kg	120	70.0 - 130	0011244139	
2,4,6-Trinitrotoluene	333588	594	500	ug/kg	119	60.0 - 130	0011244139	
2,4-Dinitrotoluene	333588	598	500	ug/kg	120	70.0 - 130	0011244139	
2,6 Dinitrotoluene	333588	600	500	ug/kg	120	70.0 - 130	0011244139	
2-Amino-4,6-dinitrotoluene	333588	567	500	ug/kg	113	70.0 - 130	0011244139	
2-Nitrotoluene	333588	624	500	ug/kg	125	70.0 - 130	0011244139	
3-Nitrotoluene	333588	571	500	ug/kg	114	70.0 - 130	0011244139	
4-Amino-2,6-dinitrotoluene	333588	606	500	ug/kg	121	70.0 - 130	0011244139	
4-Nitrotoluene	333588	533	500	ug/kg	107	70.0 - 130	0011244139	
HMX	333588	628	500	ug/kg	126	70.0 - 130	0011244139	
Nitrobenzene	333588	543	500	ug/kg	109	70.0 - 130	0011244139	
RDX	333588	796	500	ug/kg	159	70.0 - 130	0011244139	*
Tetryl	333588	540	500	ug/kg	108	70.0 - 130	0011244139	

MS

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%

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Quality Control

Printed 09/22/2009 Page 4 of 5

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Project 455812

334832 O Soil SW-846 8330

MS

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
1,3,5 Trinitrobenzene	130228	1190	1170	0	1000	70.0 - 130	119	117	ug/kg	1.69	30.0
1,3-Dinitrobenzene (DNB)	130228	1180	1160	0	1000	70.0 - 130	118	116	ug/kg	1.71	30.0
2,4,6-Trinitrotoluene	130228	1270	1260	0	1000	70.0 - 130	127	126	ug/kg	0.791	30.0
2,4-Dinitrotoluene	130228	1410	1400	0	1000	70.0 - 130	141 *	140 *	ug/kg	0.712	30.0
2,6 Dinitrotoluene	130228	894	861	0	1000	70.0 - 130	89.4	86.1	ug/kg	3.76	30.0
2-Amino-4,6-dinitrotoluene	130228	1240	1210	0	1000	70.0 - 130	124	121	ug/kg	2.45	30.0
2-Nitrotoluene	130228	1160	1150	0	1000	70.0 - 130	116	115	ug/kg	0.866	30.0
3-Nitrotoluene	130228	1200	1210	0	1000	70.0 - 135	120	121	ug/kg	0.830	30.0
4-Amino-2,6-dinitrotoluene	130228	1220	1170	0	1000	70.0 - 130	122	117	ug/kg	4.18	30.0
4-Nitrotoluene	130228	1200	1210	0	1000	70.0 - 130	120	121	ug/kg	0.830	30.0
HMX	130228	1100	1030	0	1000	70.0 - 130	110	103	ug/kg	6.57	30.0
Nitrobenzene	130228	1190	1170	0	1000	70.0 - 130	119	117	ug/kg	1.69	30.0
RDX	130228	991	957	0	1000	70.0 - 130	99.1	95.7	ug/kg	3.49	30.0
Tetryl	130228	1250	1260	0	1000	70.0 - 130	125	126	ug/kg	0.797	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
3,4-DNT	130228	UNKNOWN	5540	5000	ug/kg	111	70.0 - 130	0011244153
3,4-DNT	130230	UNKNOWN	5700	5000	ug/kg	114	70.0 - 130	0011244156
3,4-DNT	130231	UNKNOWN	5880	5000	ug/kg	118	70.0 - 130	0011244157
3,4-DNT	130232	UNKNOWN	5820	5000	ug/kg	116	70.0 - 130	0011244158
3,4-DNT	130233	UNKNOWN	5770	5000	ug/kg	115	70.0 - 130	0011244159
3,4-DNT	130234	UNKNOWN	6080	5000	ug/kg	122	70.0 - 130	0011244160
3,4-DNT	130235	UNKNOWN	5750	5000	ug/kg	115	70.0 - 130	0011244161
3,4-DNT	130236	UNKNOWN	6160	5000	ug/kg	123	70.0 - 130	0011244162
3,4-DNT	333588	Blank	557	500	ug/kg	111	70.0 - 130	0011244138
3,4-DNT	333588	LCS	714	500	ug/kg	143 *	70.0 - 130	0011244139
3,4-DNT	CCV 10	CCV	1220	1000	ug/kg	122	70.0 - 130	0011244150
3,4-DNT	CCV 50	CCV	518	500	ug/kg	104	70.0 - 130	0011244137
3,4-DNT	CCV 50	CCV	544	500	ug/kg	109	70.0 - 130	0011244163

333695 W Soil

Blank

Parameter	Type	Result	Unit
Total Solids	Blank	-0.000200	grams

Duplicate

Parameter	Sample	Type	Result	Duplicate	Unit	RPD	Limit%

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Quality Control

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Project 455812

333695 **W** **Soil**

Duplicate

Parameter	*Sample*	*Type*	*Result*	*Duplicate*	*Unit*	*RPD*	*Limit%*
Total Solids	131567	Duplicate	82.0	81.9	%	0.122	25
Total Solids	131566	Duplicate	83.7	84.0	%	0.358	25

333773 **W** **Soil**

Blank

Parameter	*Type*	*Result*	*Unit*
Total Solids	Blank	-0.000200	grams

Duplicate

Parameter	*Sample*	*Type*	*Result*	*Duplicate*	*Unit*	*RPD*	*Limit%*
Total Solids	131402	Duplicate	83.7	84.2	%	0.596	25
Total Solids	131210	Duplicate	87.7	87.6	%	0.114	25

RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

ANA-LAB CORP.
THE COMPLETE SERVICE LAB

2600 Dudley Rd.
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Chain of Custody

Panhandle	Oklahoma	North TX	Central TX
806.355.3556	405.292.6630	817.261.6404	512.821.0045
Rio Grand Valley	**Louisiana**	**Gulf Coast**	**Alabama**
956.831.6437	318.219.9300	281.333.9414	256.651.7264

ALAG

Report to: Phyllis Primrose	Project-name/location: LHAAP19 Landfill Closure Assessment
Company name: RCG	Billing Address (if different): Alamo Environmental
Address: 2101 Cobton Dr.	10843 Gulfdale SA, TX
City: Tyler State: TX Zip: 75703	City State Zip
Phone: 8126949326 Fax	Phone: 2104641220 Fax
Sampler Signature: [signature] Printed Name: PHILLIS PRIMROSE	Affiliation: RCG PO Number: AR09195

Analysis Requested: Perchlorate; Explosives

Lab Number Do Not Use	Field Identification	Date	Time	Matrix	# of Containers	Notes	Perchlorate	Explosives					
13-228/229	B5 0.5-1	9/2/09	0800	SOIL	2	MS/MSD	X	X					
13-230	B5 14-14.5	9/2/09	0815	SOIL	2		X	X					
231	B6 1-1.5		1348				X	X					
232	B6 14-14.5		1406				X	X					
233	B8 2.75-3		1425				X	X					
234	B8 13-14		1448				X	X					
235	B10 1-2		1507				X	X					
236	B10 11.5-12		1517				X	X					
	~~B8 8-8~~												
237	B10 14-15		1524		3		X	X		HOLD			

Date	Time	Relinquished by: Printed Name	Signature	Affiliation	Received by: Printed Name	Signature	Affiliation
9/2/09	1533	Phyllis Primrose	[signature]	RCG	Jeff Tjerlker	[signature]	ETTL
9/2/09	1641	Jeff Tjerlker	[signature]	ETTL	Kathy Tarver Ana-Lab	[signature]	

☐ Wastewater ☐ Drinking Water ☑ SW846
Samples contain ☐ HF ☐ CN ☑ S= ☐ other##

Samples Received on Ice? ☑ Yes ☐ No Method of Shipment ☐ Bus ☐ FedEx ☐ Lone Star ☐ UPS ☑ Hand delivered ☐ Airborne ☐ other ##comments
Cooler/Sample Secure? ☑ Yes ☐ No Tracking or Shipping Number _____
Requested TAT ☐ Routine ☐ 3 day ☐ 2 Day ☐ 24 Hr. ☐ 2-8 Hour ☐ Samples contain HF CN

003689 ☐
003233 ☑
003532 ☐
003688 ☐

L/oC

Ana-Lab personnel collect samples as specified by Ana-Lab SOP #000323.

Sample analysis will be provided according to Ana-Lab's Standard Terms and Conditions of Agreement, available upon request and at www.ana-lab.com. Any other terms proposed by Client are deemed material alterations and are rejected unless expressly agreed to in writing by Ana-Lab.

CUSTODY SEAL

Person Collecting Sample _____ (Signature) Sample No. _____

Date Collected _____ Time Collected _____

CUSTODY SEAL

Person Collecting Sample _____ (Signature) Sample No. _____

Date Collected _____ Time Collected _____

YAHOO! SMALL BUSINESS

Re: Fw: LHAAP19: SQLs exceed project requirements C:ALA4 P:455812

Thursday, January 14, 2010 1:56 PM

From: "tvarvel" <tvarvel@ana-lab.com>
To: "Phyllis Primrose" <phyllis@rcgtex.com>
Cc: "Greg Oliver" <greg@ana-lab.com>, "bpeery@ana-lab.com" <bpeery@ana-lab.com>, "Daniel Hooton" <info@ana-lab.com>, "skeeter@ana-lab.com" <skeeter@ana-lab.com>

17 Files (3635KB)

set_3335... set_3348... set_3348... set_3348... set_3348... set_3348... set_3348... set_3348...

set_3348... set_3348... set_3348... set_3348... set_3348... set_3348... set_3348... set_3348...

set_3348...

Phyllis,

I am forwarding you the raw data (Prep and run data) associated with the soil explosives for project 455812. Our organics supervisor performed a review of the data and did not see any areas where explosives were present below our reporting limits. I will forward the data from project 455504 and 455502 this afternoon when our system is back up.

We calibrate down to 30ppb (0.3 ppm once we account for the extraction factor) for explosives. Our MDL study was not low enough to meet your required limits. We are in the process of running a new MDL study to lower these.
Could you send me a copy of the required limits for the LHAAP project? I do not have a copy.

Thanks,

Tracey Varvel
Assistant Manager - Quality Assurance
Ana-Lab Corporation
903-984-0551

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Phyllis Primrose wrote:
> Tracey-
> I don't recall receiving a response from you regarding the following e-mail. Please confirm receipt of this e-mail and the status of the response.
> Thanks,
> Phyllis
> *RCG*
> *2101 Colston Drive*
> *Tyler, TX 75703
> 512.694.9326
> www.rcgtex.com <http://www.rcgtex.com/>
> *
> //
> /Geoscientific work or services discussed herein are preliminary (DRAFT) and released for interim review under the authority of Phyllis Primrose, P.G. #2586. Any other use of this information without written consent from Phyllis Primrose is prohibited./
>
>
> --- On *Mon, 12/28/09, Phyllis Primrose /<phyllis@rcgtex.com>/* wrote:
>
>
> From: Phyllis Primrose <phyllis@rcgtex.com>
> Subject: Fw: LHAAP19: SQLs exceed project requirements
> To: "Tracey Arvel" <tvarvel@ana-lab.com>
> Date: Monday, December 28, 2009, 1:38 PM
>
> Tracey-
> Here is the original email. I need a response from AnaLab for the
> following analytes in SOIL:
> 1,2 DNB
> 2-Amino-4,6 DNT
> 4-Amino-2,6 DNT
> RDX
> The issues are described in the Summary and Conclusion columns. The main issue is that the SQLs were higher than the regualoratory
> standard. I need supporting documentation that each analyte is
> not present in the sample (review associated chromatographs and
> MDLs) or that the most sensitive method available was used.
> Please contact me if you have any questions.
> Phyllis
> *RCG*
> *2101 Colston Drive*
> *Tyler, TX 75703
> 512.694.9326
> www.rcgtex.com <http://www.rcgtex.com/>
> *
> //
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> Phyllis Primrose, P.G. #2586. Any other use of this information
> without written consent from Phyllis Primrose is prohibited./
>

>
> --- On *Mon, 12/21/09, Phyllis Primrose /<phyllis@rcgtex.com>/* wrote:
>
>
> From: Phyllis Primrose <phyllis@rcgtex.com>
> Subject: LHAAP19: SQLs exceed project requirements
> To: "Reddy" <reddy@alamoanalytical.com>, "Greg Oliver"
> <goliver@ana-lab.com>
> Cc: "Daniel Hooton" <daniel@ana-lab.com>
> Date: Monday, December 21, 2009, 12:13 PM
>
> Dr. Gosala and Mr. Oliver,
> I have reviewed the analytical data for the Longhorn Army
> Ammunition Plant. Some of the SQLs for non-detected chemicals
> exceeded the project requirements (in other words the SQL is
> higher than the regulatory limit). Tables 9 and 10 identify
> the chemicals where I was not able to justify the SQLs with
> available data in accordance with TCEQ guidance documents
> (Consistency Memo and TRRP-13). These chemicals are
> identified as "pending" in the "standard attained" column.
> I have attached soil and groundwater data summaries for these
> chemicals. Please review the data for your respective
> laboratory. I need each of you to provide documentation that
> supports your lab has met the project criteria. This includes:
> 1) was the most sensitive method available was used,
> 2) is the chemical likely to be present above the project
> criteria (highlighted in yellow);
> 3) what actions the lab took to meet the TCEQ Consistency Memo
> and TRRP-13;
> 4) what actions would be needed, if any, to meet the project
> criteria.
> The documentation you submit needs to be in a format that can
> be included in the assessment report and submitted to the TCEQ
> for review.
> Please let me know if you have any questions. Phyllis
> *RCG*
> *2101 Colston Drive*
> *Tyler, TX 75703
> 512.694.9326
> www.rcgtex.com <http://www.rcgtex.com/>
> *
> //
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> this information without written consent from Phyllis Primrose
> is prohibited./
>

Extraction Code EXPS Date/Time/Tech 09.08.09/1000/TRP

Surrogate Lot # C10050	LCS/Spike Lot # C10965
Extraction Solvent Lot # C10584	Exchange Solvent # –
Acid Lot # –	Base Lot # –
Sodium Sulfate Lot # –	Sand Lot # –
Silicic Acid Lot # –	Diazomethane Lot # –
Balance # 2370	Other NaCl C11059

Sample ID	New Bot #	Sonicator # 2978	Sonicator # 3330	Sample Volume Initial (g)	Sample Volume Final (mLs)	Comments
B0908G1	–			2g	10	EXPS: 333588
LCS0908G1	–					
129609-01	02					
129610-01						
129611-01						
129612-01						
129613-01						
129614-01	03					
129615-01	02					
129616-01						
129617-01						
129618-01						
129619-01						
129620-01						
130228-01	06					
130228-01 MS	07					
130228-01 MSD	08					
130230-01	04					
130231-01						
130232-01						
130233-01						
130234-01						
130235-01						
130236-01						

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663
Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com LELAP-accredited #02008

Preparations

Printed 09/08/2009 16:23 Page 1 of 2
EXPS EXPS

09/08/2009 1000 TRP

333588

Sample	From	Initial g	Final ml	New BOT	Type	Description				pH	Sequence
333588		2	10		Blank	001					1.00
333588		2	10		LCS	002					2.00
333588		2	10		LCS Dup	003					3.00
129609	01	2	10	02	UNKNOWN	004 ALA4					4.00
129610	01	2	10	02	UNKNOWN	005 ALA4					5.00
129611	01	2	10	02	UNKNOWN	006 ALA4					6.00
129612	01	2	10	02	UNKNOWN	007 ALA4					7.00
129613	01	2	10	02	UNKNOWN	008 ALA4					8.00
129614	01	2	10	03	UNKNOWN	009 ALA4					9.00
129615	01	2	10	02	UNKNOWN	010 ALA4					10.00
129616	01	2	10	02	UNKNOWN	011 ALA4					11.00
129617	01	2	10	02	UNKNOWN	012 ALA4					12.00
129618	01	2	10	02	UNKNOWN	013 ALA4					13.00
129619	01	2	10	02	UNKNOWN	014 ALA4					14.00
129620	01	2	10	02	UNKNOWN	015 ALA4					15.00
130228	01	2	10	06	UNKNOWN	016 ALA4					16.00
130228	01	2	10	07	MS	017					17.00
130228	01	2	10	08	MSD	018					18.00
130230	01	2	10	04	UNKNOWN	019 ALA4					19.00

Courier Shipping: 2600 Dudley Rd. Kilgore, TX 75662

00121631

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663
Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com LELAP-accredited #02008

Preparations

Printed 09/08/2009 16:23 Page 2 of 2
EXPS EXPS

333588

09/08/2009 1000 TRP

130231	01	2	10	04	UNKNOWN	020 ALA4					20.00
130232	01	2	10	04	UNKNOWN	021 ALA4					21.00
130233	01	2	10	04	UNKNOWN	022 ALA4					22.00
130234	01	2	10	04	UNKNOWN	023 ALA4					23.00
130235	01	2	10	04	UNKNOWN	024 ALA4					24.00
130236	01	2	10	04	UNKNOWN	025 ALA4					25.00

ELP
9/8/09

Ver.
ZW
9-10-09

Level 1 Analyst Review Checklist

Test Code: EXPS QC group: 333588

Please answer the following to the best of your knowledge.

Preparatory Tests[1]:	Yes	No	Comments
1. Is the following sample prep information correct on your bench sheet and in LDS?			
a. Bottle type	✓		
b. Bottle number	✓		
c. Holding time met	✓		
2. Were there any special sample prep requirements?		✓	
a. If so were they met?			
3. Is sample prep documentation complete on your bench sheet and in LDS?	✓		
4. Was the SOP followed?	✓		

Analysis Tests[1]:	Yes	No	Comments
1. Is the analysis data correct?			
a. Raw readings			
b. Calculations			
c. Dilution factors applied			
d. Integrations			
2. Was raw data correctly interpreted?			
3. Are the analysis results complete, i.e. all of the required documentation present?			
4. Are QC samples within established control limits?			
5. Were there any special analysis requirements?			
a. If so were they met?			

Tracy Phillips [signature] 9/8/09 1000

Printed Name Signature Date/Time

Note 1:
If your test is prep only, please complete the Preparatory Test section and write "N/A" for the Analysis Test section.
If your test is the analysis only, please N/A the Preparatory Test section and complete the Analysis Test section.
If your test includes the prep and analysis, please complete both sections.

Level 2 Peer Review

Test Code: EXPS QC group: 333588

Please answer the following to the best of your knowledge.

Prep/Analysis Tests	Yes	No	Comments
1. Was the SOP followed?	✓		
2. Was the holding time met?	✓		

Preparatory Tests[1]:	Yes	No	Comments
1. Is the following sample prep information complete and correct on your bench sheet and in LDS?			
a. Bottle type	✓		
b. Bottle number	✓		
2. Were there any special sample prep requirements?		✓	
a. If so were they met?	---	---	

Analysis Tests[1]:	Yes	No	Comments
1. If required by the analysis (SOP):			
a. Is the calibration data complete?			N/A
b. Are the appropriate calibration points used?			N/A
c. Is calibration data sound?			N/A
2. Are QC samples within established control limits?			N/A
3. Is the analysis data correct?			
a. Raw readings			N/A
b. Calculations			N/A
c. Dilution factors applied			N/A
d. Integrations			N/A
4. If needed, are the data flags appropriate?			N/A
5. Are the analysis results complete, i.e. all of the required documentation present?			N/A
6. Are the results correct?			N/A
7. Were there any special analysis requirements?			N/A
a. If so were they met?			N/A

Note 1.
If the test is prep only, please complete the Preparatory Test section and write "N/A" for the Analysis Test section.
If the test is the analysis only, please N/A the Preparatory Test section and complete the Analysis Test section.
If the test includes the prep and analysis, please complete all sections.

0 problems were found with this data set. Errors, if present are noted in the Level 2 Peer Review checklist.

Corrections, if necessary, include:

Lucie Yin — Lucie Yin — 9-10-2009/ 1312

Printed Name — Signature — Date/Time

334801

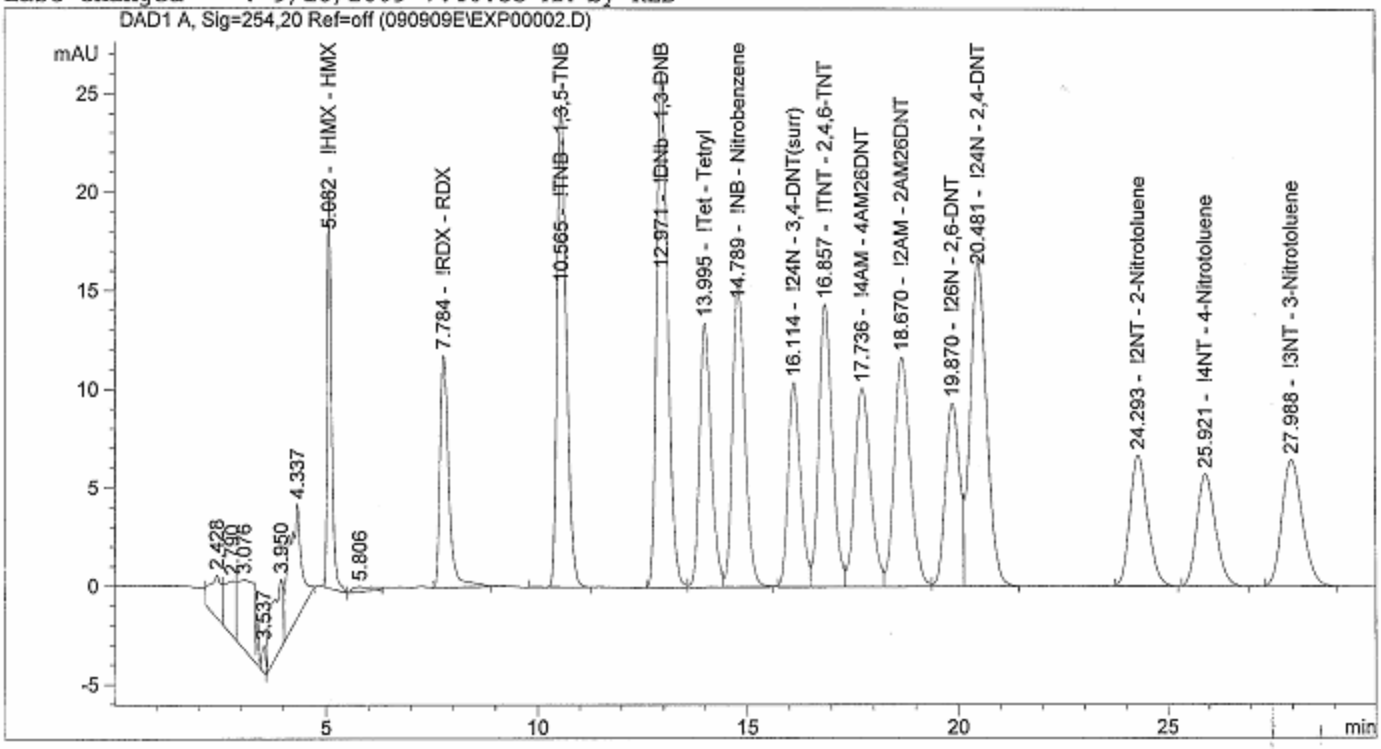
EXPLOSIVE CURVE

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00002.D Sample Name: 1000 PPB EXP

P5830EXP

==========

Injection Date : 9/9/2009 5:35:42 PM Seq. Line : 2
Sample Name : 1000 PPB EXP Location : Vial 0
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/9/2009 4:55:21 PM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 7:40:55 AM by KLB



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External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.082	BP	141.90709	6.91638	981.48290		!HMX - HMX
7.784	VB	170.06126	5.77904	982.79075		!RDX - RDX
10.565	PB	373.88162	2.63449	984.98642		!TNB - 1,3,5-TNB
12.971	BV	480.18893	2.05156	985.13661		!DNb - 1,3-DNB
13.995	VV	258.07019	3.82870	988.07214		!Tet - Tetryl
14.789	VB	319.19958	3.09625	988.32212		!NB - Nitrobenzene
16.114	BV	214.74405	4.60891	989.73532		!24N - 3,4-DNT(surr)
16.857	VV	316.26599	3.12681	988.90439		!TNT - 2,4,6-TNT
17.736	VV	262.22311	3.77280	989.31530		!4AM - 4AM26DNT
18.670	VV	308.77036	3.20194	988.66533		!2AM - 2AM26DNT
19.870	VV	219.36485	4.49967	987.06986		!26N - 2,6-DNT
20.481	VB	448.50171	2.20126	987.26979		!24N - 2,4-DNT
24.293	BB	199.13847	4.92389	980.53645		!2NT - 2-Nitrotoluene

00121641

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00002.D Sample Name: 1000 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.921	BP	180.02614	5.44311	979.90242		!4NT - 4-Nitrotoluene
27.988	BB	218.10078	4.51074	983.79687		!3NT - 3-Nitrotoluene

Totals : 1.47860e4

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========
*** End of Report ***

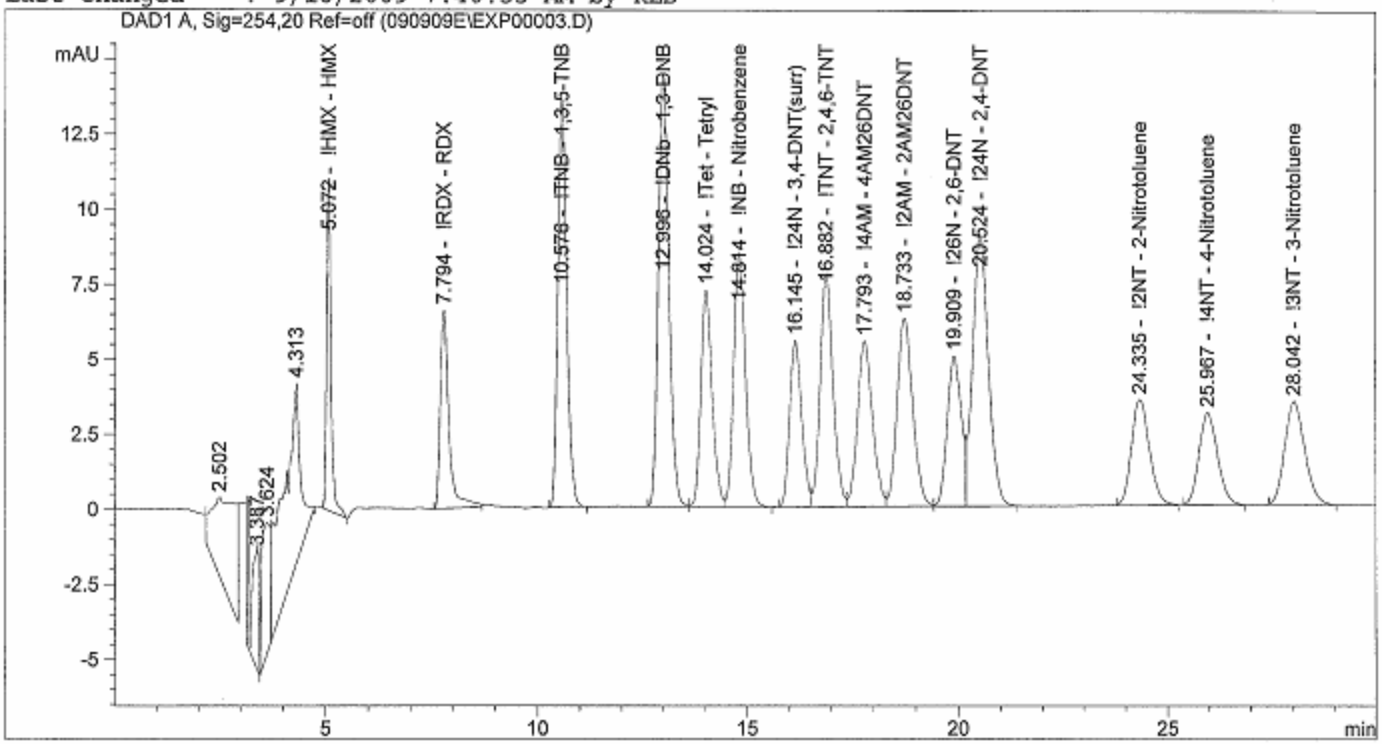
00121643

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00003.D Sample Name: 500 PPB EXP

P5830EXP

==========

Injection Date : 9/9/2009 6:09:27 PM Seq. Line : 3
Sample Name : 500 PPB EXP Location : Vial 1
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/9/2009 4:55:21 PM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 7:40:55 AM by KLB



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External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.072	BP	77.48312	6.61415	512.48488		!HMX - HMX
7.794	PB	92.82751	5.42964	504.02019		!RDX - RDX
10.576	BB	198.69781	2.56055	508.77592		!TNB - 1,3,5-TNB
12.996	BV	254.98935	1.99458	508.59790		!DNb - 1,3-DNB
14.024	VV	135.14534	3.71661	502.28308		!Tet - Tetryl
14.814	VP	166.75432	3.00730	501.48004		!NB - Nitrobenzene
16.145	BV	111.69988	4.46845	499.12500		!24N - 3,4-DNT(surr)
16.882	VV	165.36047	3.03152	501.29398		!TNT - 2,4,6-TNT
17.793	VV	136.64870	3.65736	499.77397		!4AM - 4AM26DNT
18.733	VV	161.35808	3.11035	501.87979		!2AM - 2AM26DNT
19.909	VV	115.40574	4.36661	503.93186		!26N - 2,6-DNT
20.524	VB	236.38100	2.14066	506.01177		!24N - 2,4-DNT
24.335	BB	107.32756	4.77778	512.78699		!2NT - 2-Nitrotoluene

00121645

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00003.D Sample Name: 500 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.967	BB	97.36887	5.27066	513.19830		!4NT - 4-Nitrotoluene
28.042	BB	115.35159	4.42204	510.08918		!3NT - 3-Nitrotoluene

Totals : 7585.73286

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========
*** End of Report ***

00121647

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0007.D Sample Name: 129613-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 583.01457

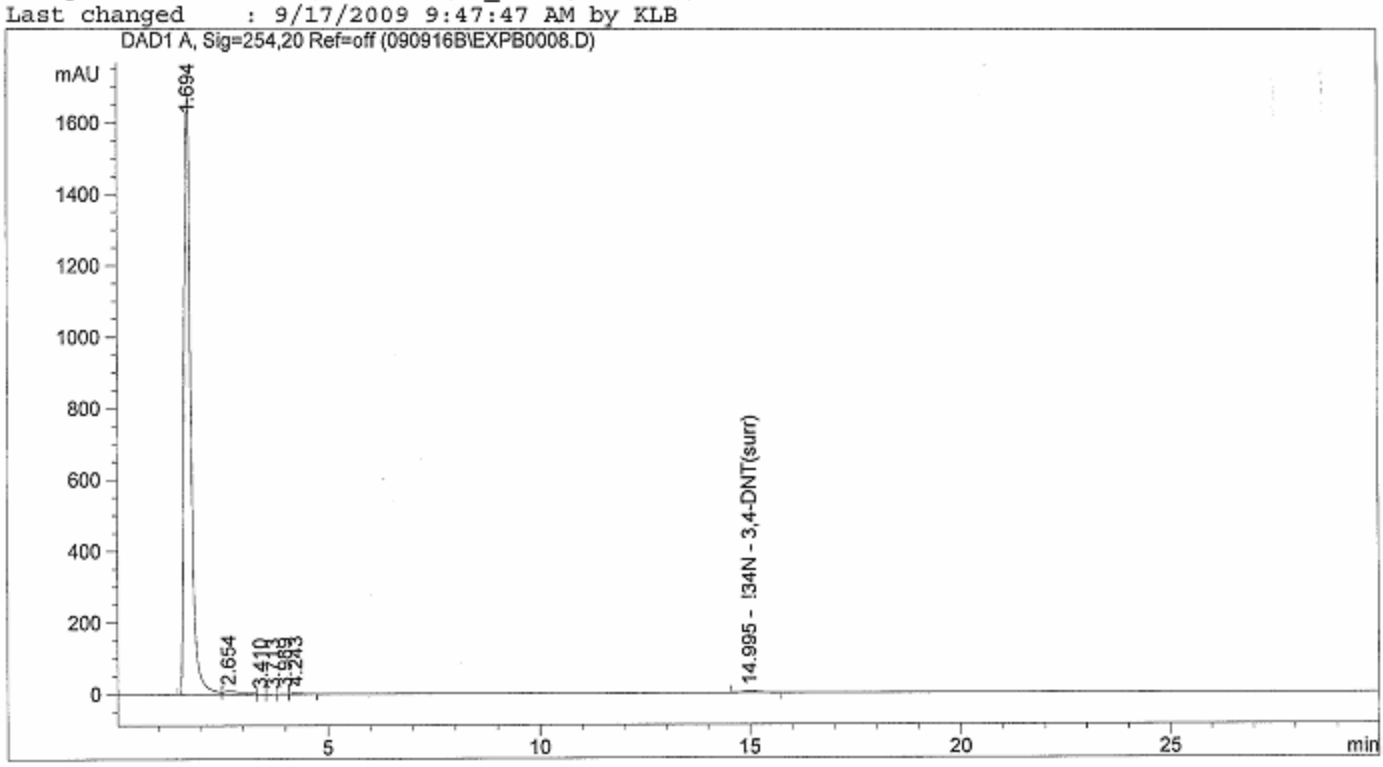
Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found
Warning : Negative results set to zero (cal. curve intercept), (!Tet - Tetryl)

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0008.D Sample Name: 129614-02X2

```
==================================================================
Injection Date  : 9/16/2009 1:06:11 PM          Seq. Line :   8
Sample Name     : 129614-02X2                    Location : Vial 8
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.995	BB	130.09158	4.50983	586.69093		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0008.D Sample Name: 129614-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 586.69093

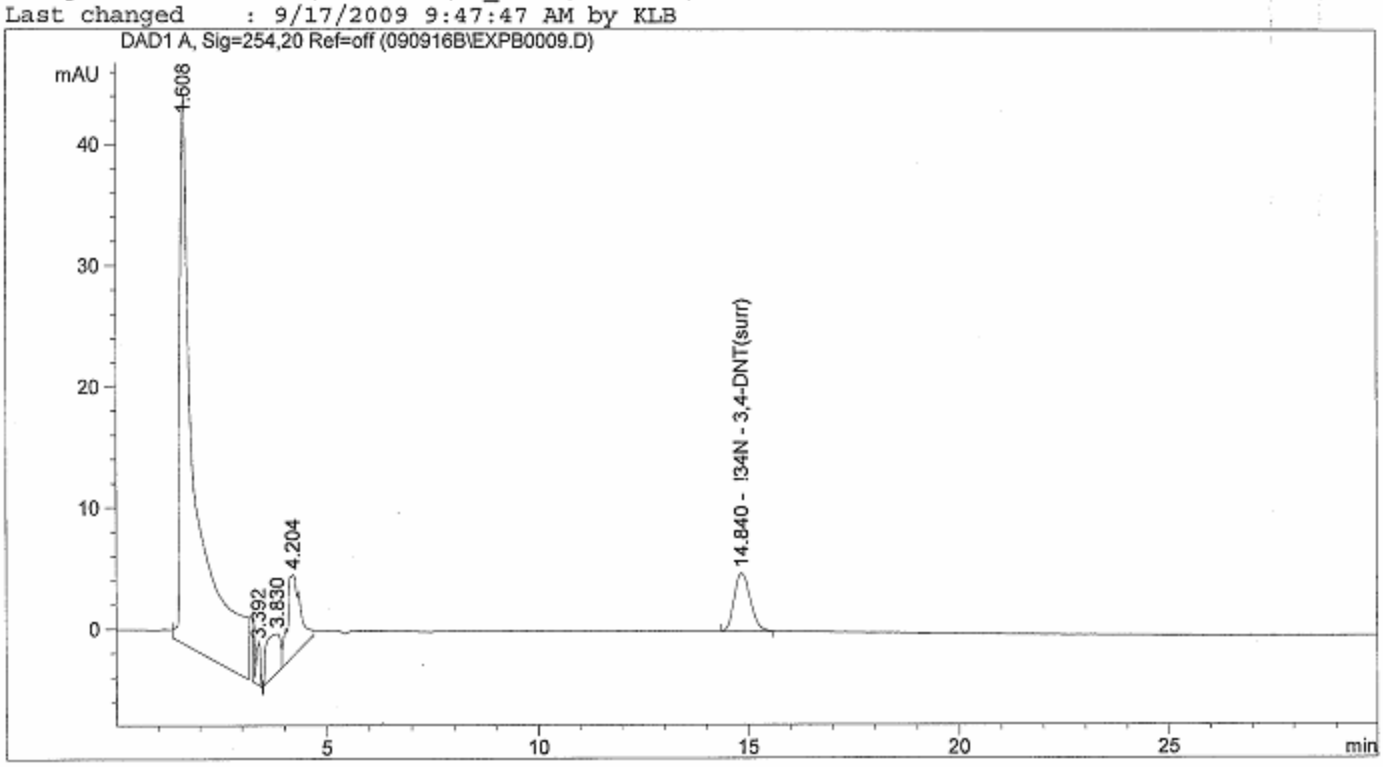
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0009.D Sample Name: 129615-02X2

```
==================================================================
Injection Date  : 9/16/2009 1:39:57 PM          Seq. Line :   9
Sample Name     : 129615-02X2                    Location : Vial 9
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.840	BB	128.12117	4.50596	577.30947		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0009.D Sample Name: 129615-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 577.30947

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0010.D Sample Name: 129616-02X2

```
==================================================================
Injection Date  : 9/16/2009 2:13:42 PM          Seq. Line :  10
Sample Name     : 129616-02X2                    Location : Vial 10
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
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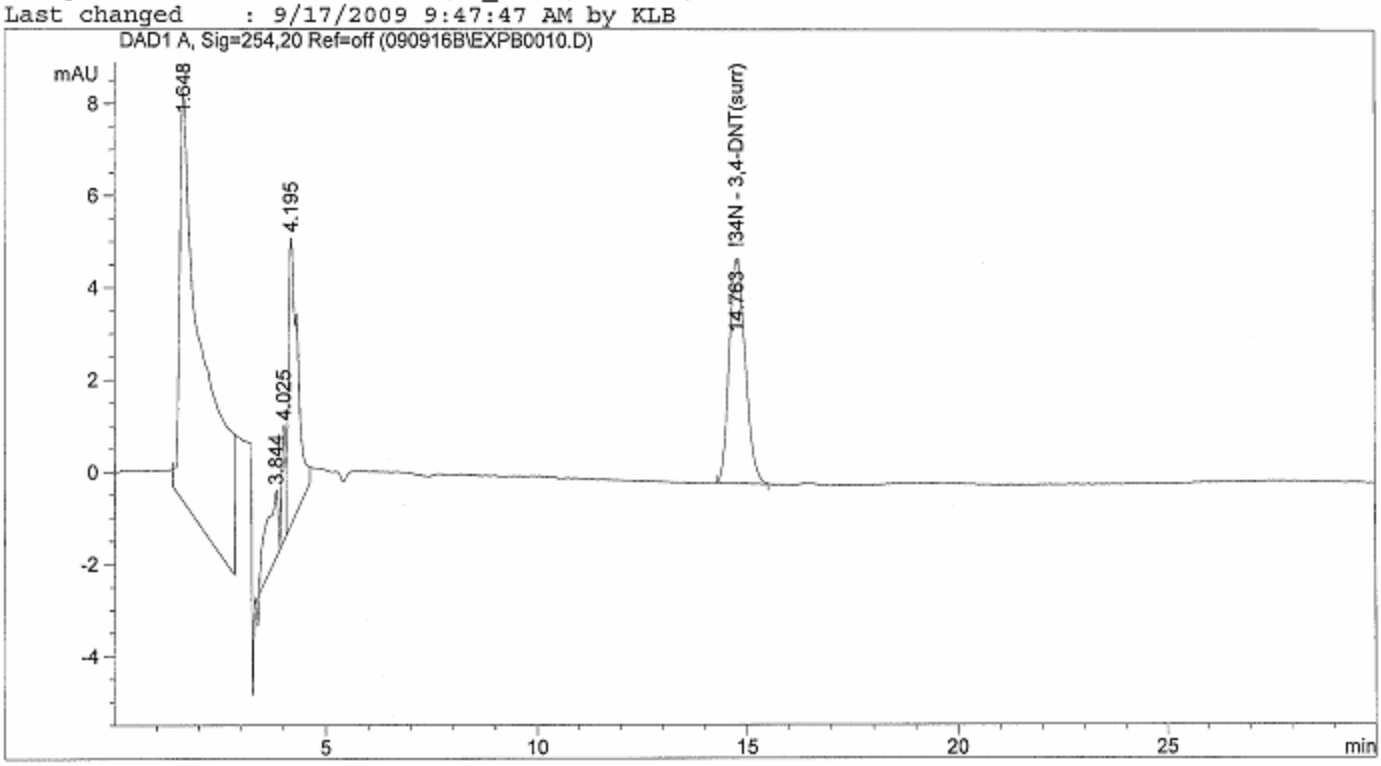



```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.763	BB	130.74780	4.51109	589.81530		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0010.D Sample Name: 129616-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 589.81530

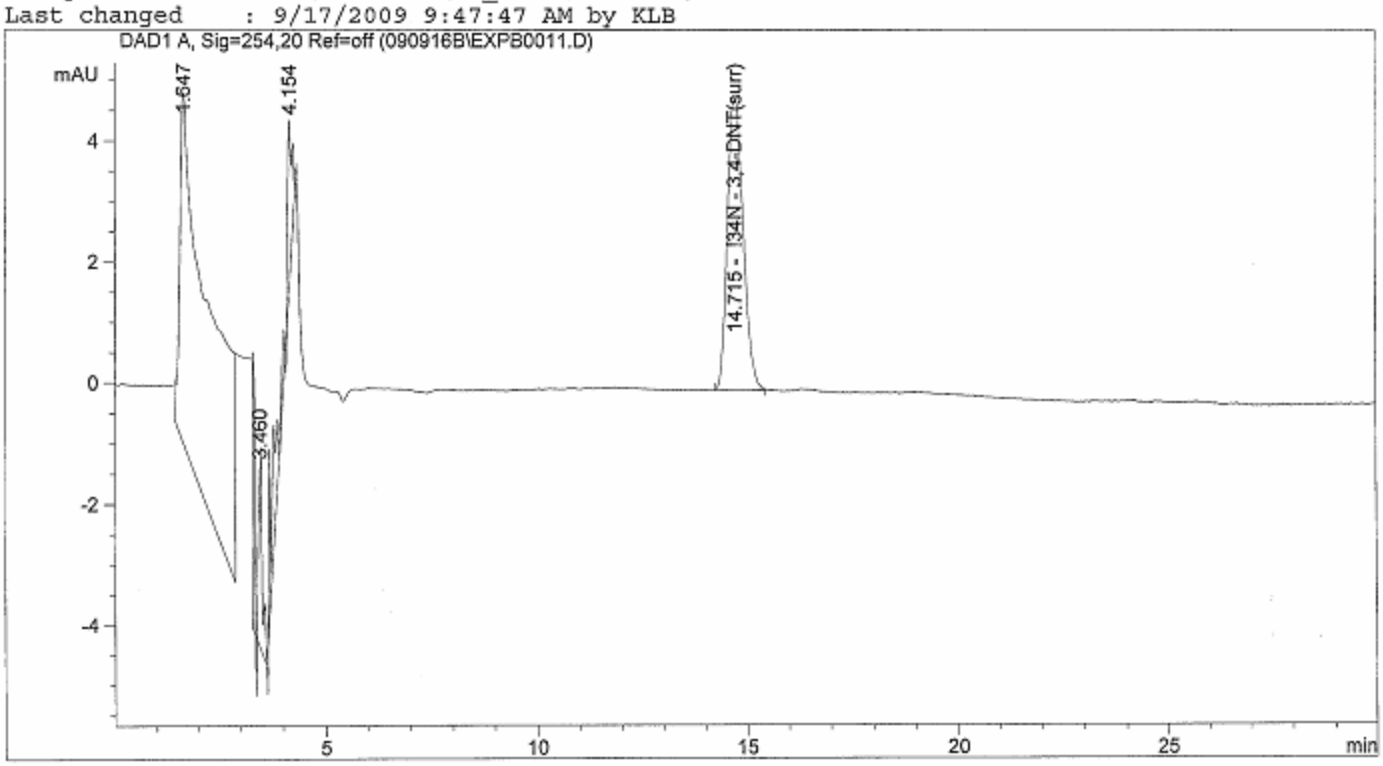
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0011.D Sample Name: 129617-02X2

```
==================================================================
Injection Date  : 9/16/2009 2:47:27 PM          Seq. Line :  11
Sample Name     : 129617-02X2                    Location : Vial 11
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.715	BB	127.39262	4.50451	573.84070		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0011.D Sample Name: 129617-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 573.84070

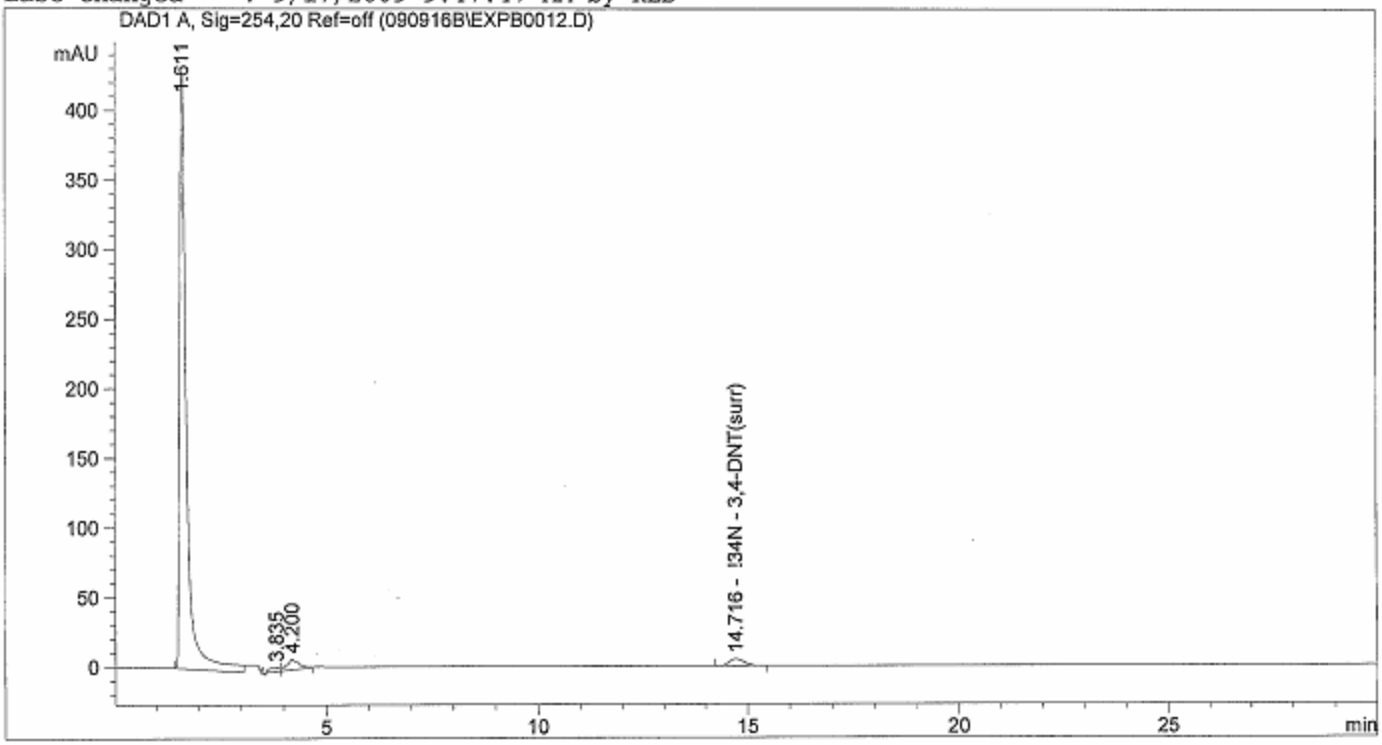
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0012.D Sample Name: 129618-02X2

```
==================================================================
Injection Date  : 9/16/2009 3:21:11 PM          Seq. Line :  12
Sample Name     : 129618-02X2                    Location : Vial 12
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.716	PB	125.58034	4.50080	565.21214		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0012.D Sample Name: 129618-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 565.21214

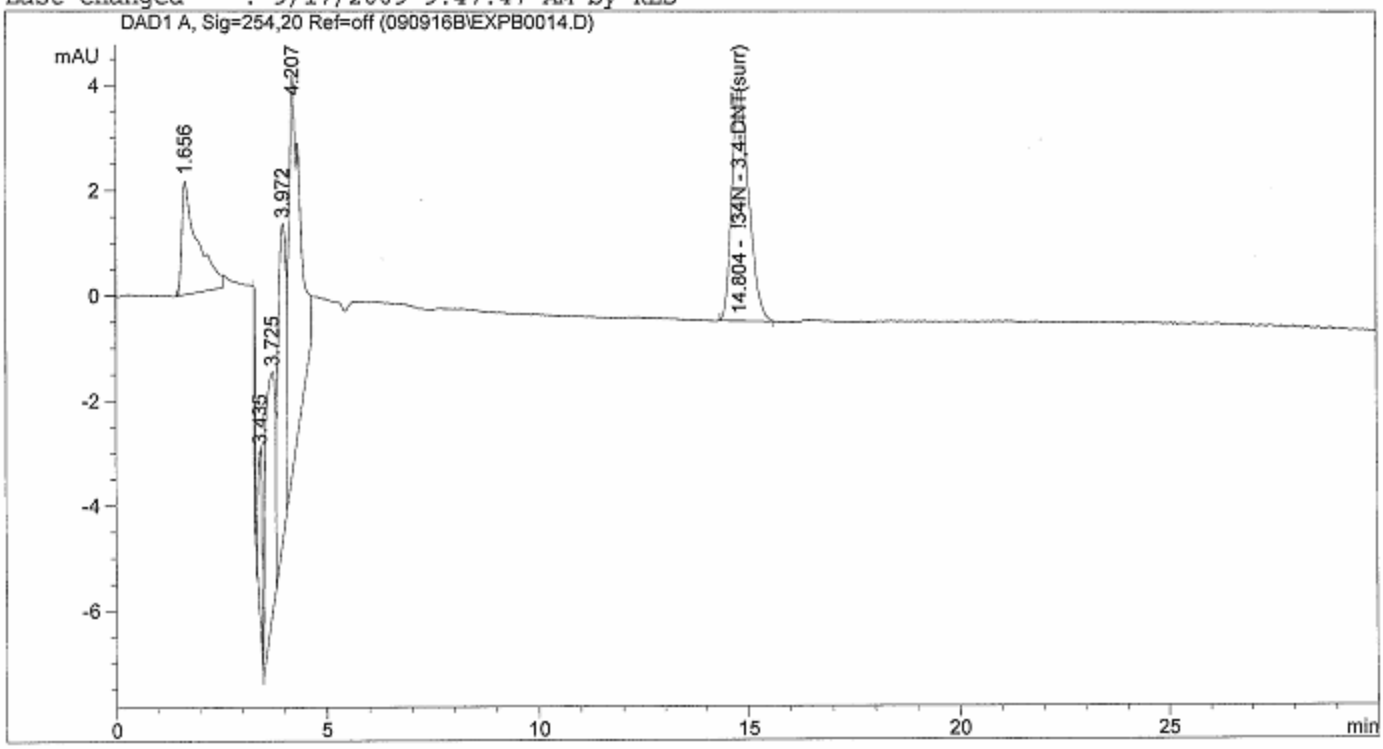
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0014.D Sample Name: 129619-02X2

```
==================================================================
Injection Date  : 9/16/2009 4:28:42 PM          Seq. Line :  14
Sample Name     : 129619-02X2                    Location : Vial 14
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.804	BB	124.74450	4.49906	561.23258		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0014.D Sample Name: 129619-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 561.23258

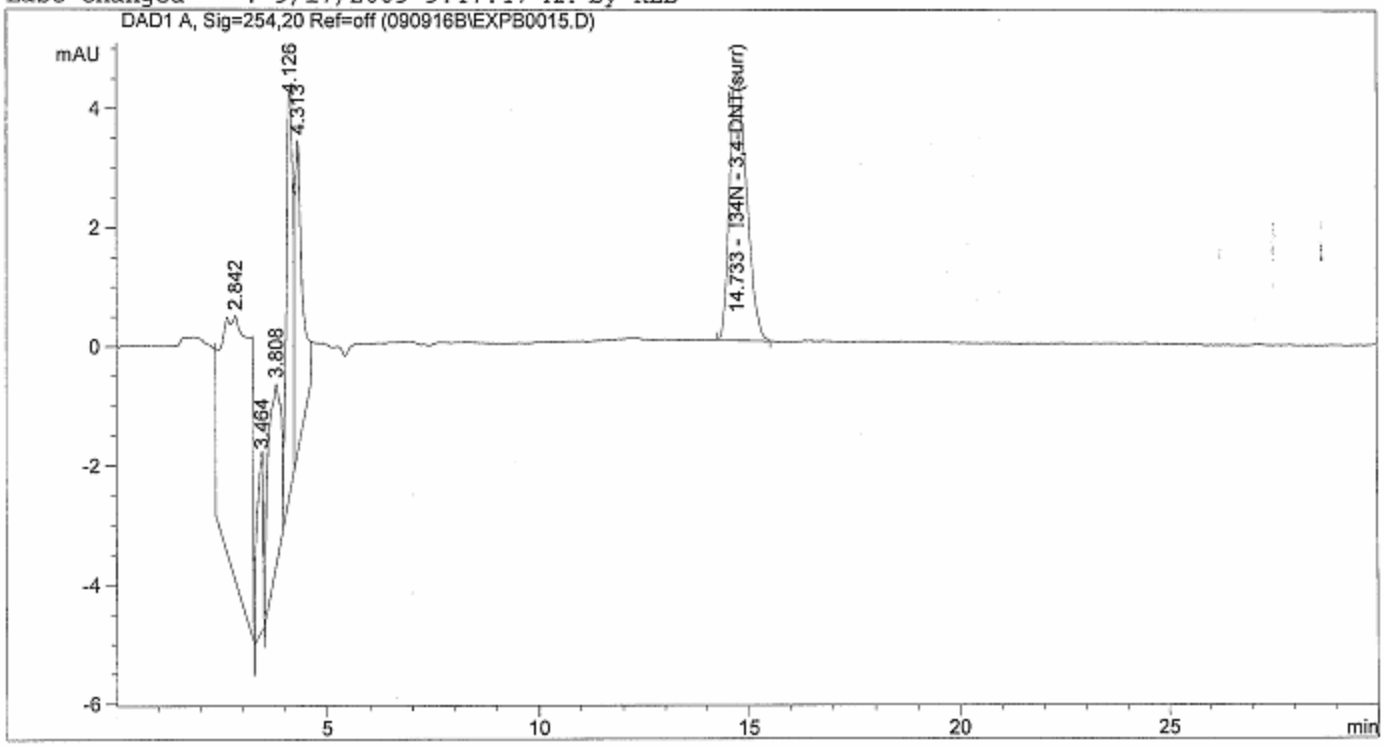
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0015.D Sample Name: 129620-02X2

```
==================================================================
Injection Date  : 9/16/2009 5:02:28 PM          Seq. Line :  15
Sample Name     : 129620-02X2                    Location : Vial 15
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.733	BB	127.55796	4.50484	574.62793		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0015.D Sample Name: 129620-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 574.62793

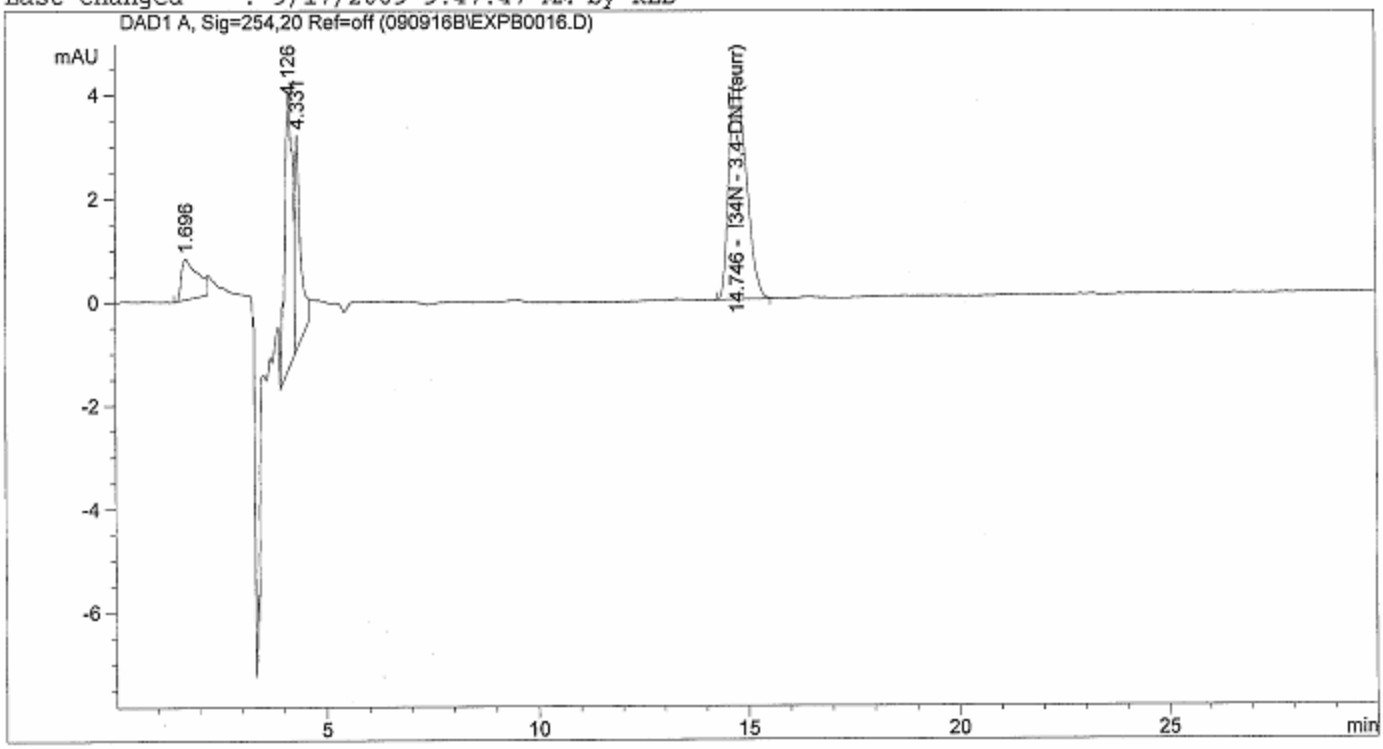
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0016.D Sample Name: 130228-06X2

```
==================================================================
Injection Date  : 9/16/2009 5:36:13 PM          Seq. Line :  16
Sample Name     : 130228-06X2                    Location : Vial 16
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.746	BB	123.20203	4.49578	553.88865		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121679

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0016.D Sample Name: 130228-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 553.88865

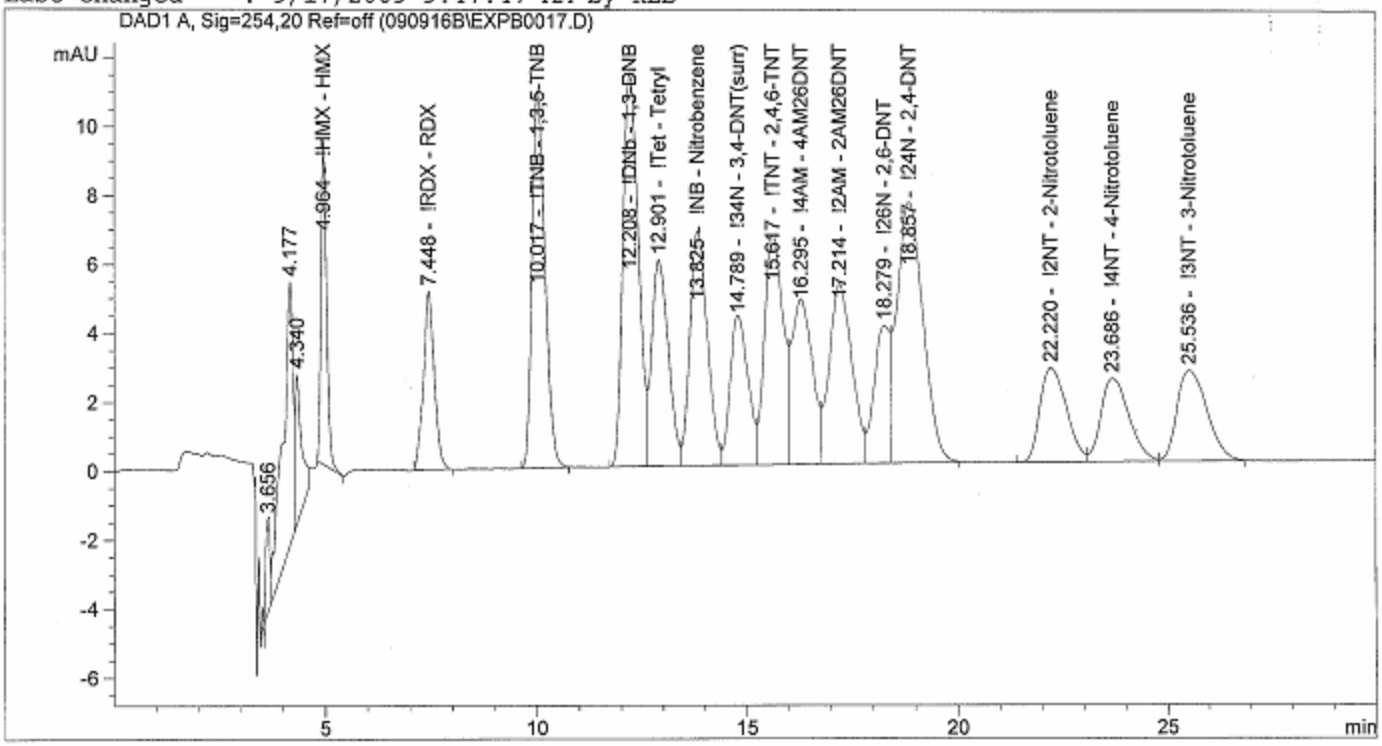
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0017.D Sample Name: 130228-07S1X2

```
==================================================================
Injection Date  : 9/16/2009 6:09:59 PM          Seq. Line :  17
Sample Name     : 130228-07S1X2                  Location : Vial 17
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.964	BP	82.63360	6.65564	549.97966		!HMX - HMX
7.448	BP	91.48009	5.41831	495.66756		!RDX - RDX
10.017	BB	230.91109	2.58256	596.34280		!TNB - 1,3,5-TNB
12.208	BV	293.42743	2.01050	589.93567		!DNb - 1,3-DNB
12.901	VV	165.78171	3.76010	623.35552		!Tet - Tetryl
13.825	VV	196.55533	3.03554	596.65115		!NB - Nitrobenzene
14.789	VV	128.69434	4.50710	580.03841		!34N - 3,4-DNT(surr)
15.617	VV	207.51129	3.07209	637.49296		!TNT - 2,4,6-TNT
16.295	VV	164.86186	3.69862	609.76063		!4AM - 4AM26DNT
17.214	VV	196.83078	3.14492	619.01792		!2AM - 2AM26DNT
18.279	VV	103.16601	4.33330	447.04913		!26N - 2,6-DNT
18.857	VB	323.44199	2.17515	703.53515		!24N - 2,4-DNT
22.220	PV	120.95061	4.81347	582.19242		!2NT - 2-Nitrotoluene
23.686	VV	113.17479	5.32312	602.44259		!4NT - 4-Nitrotoluene

00121683

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0017.D Sample Name: 130228-07S1X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.536	VB	134.31953	4.44863	597.53765		!3NT - 3-Nitrotoluene

Totals : 8830.99922

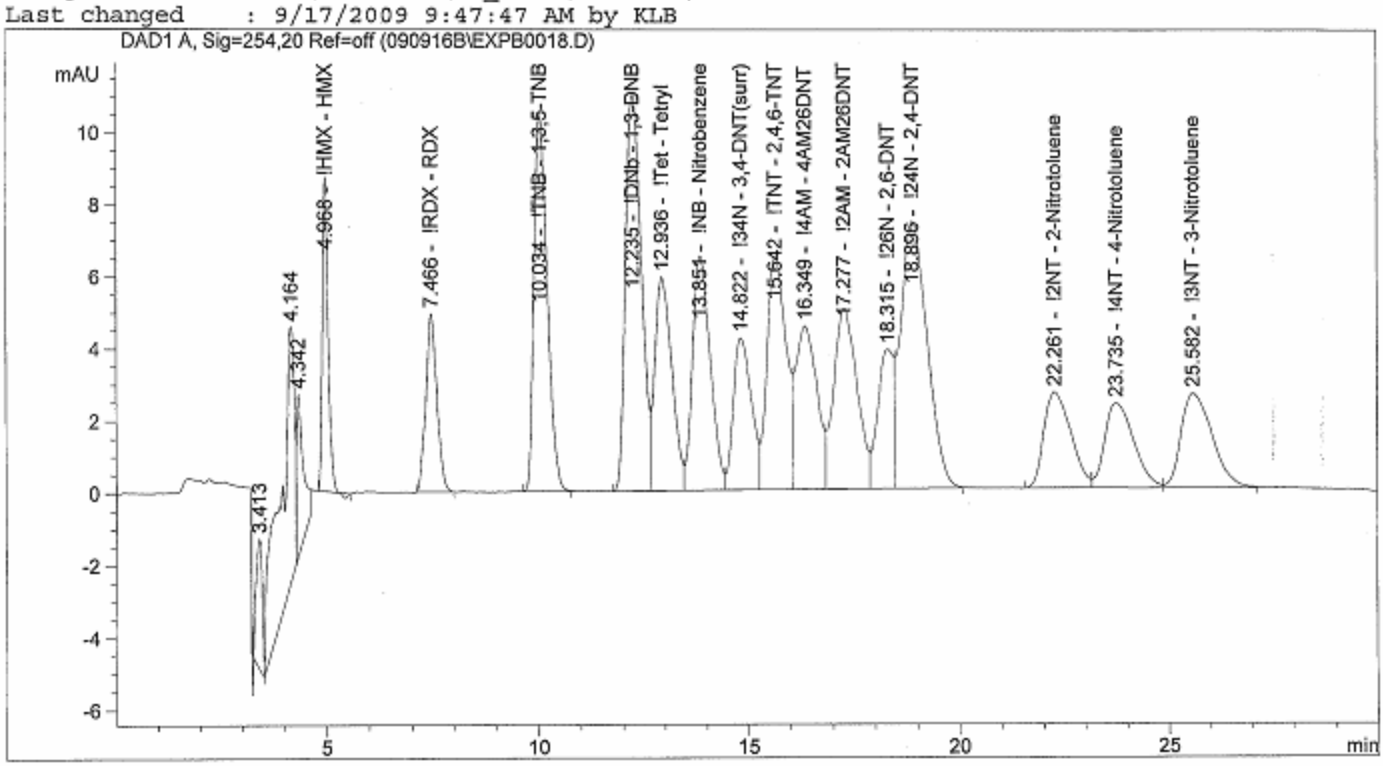
Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0018.D Sample Name: 130228-08S2X2

```
==================================================================
Injection Date  : 9/16/2009 6:43:46 PM          Seq. Line :  18
Sample Name     : 130228-08S2X2                  Location : Vial 18
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.968	BP	77.85883	6.61736	515.21999		!HMX - HMX
7.466	BB	88.69897	5.39383	478.42740		!RDX - RDX
10.034	BB	226.70184	2.58004	584.90061		!TNB - 1,3,5-TNB
12.235	BV	289.09558	2.00892	580.76917		!DNb - 1,3-DNB
12.936	VV	167.60117	3.76218	630.54587		!Tet - Tetryl
13.851	VV	192.12531	3.03189	582.50364		!NB - Nitrobenzene
14.822	VV	126.17580	4.50203	568.04726		!34N - 3,4-DNT(surr)
15.642	VV	205.03716	3.07017	629.49846		!TNT - 2,4,6-TNT
16.349	VV	158.20047	3.69020	583.79175		!4AM - 4AM26DNT
17.277	VV	193.27187	3.14203	607.26566		!2AM - 2AM26DNT
18.315	VV	99.55354	4.32190	430.26058		!26N - 2,6-DNT
18.896	VB	321.85022	2.17469	699.92376		!24N - 2,4-DNT
22.261	PV	119.74194	4.81063	576.03460		!2NT - 2-Nitrotoluene
23.735	VV	114.00700	5.32548	607.14145		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0018.D Sample Name: 130228-08S2X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.582	VB	135.84723	4.45045	604.58083		!3NT - 3-Nitrotoluene

Totals : 8678.91102

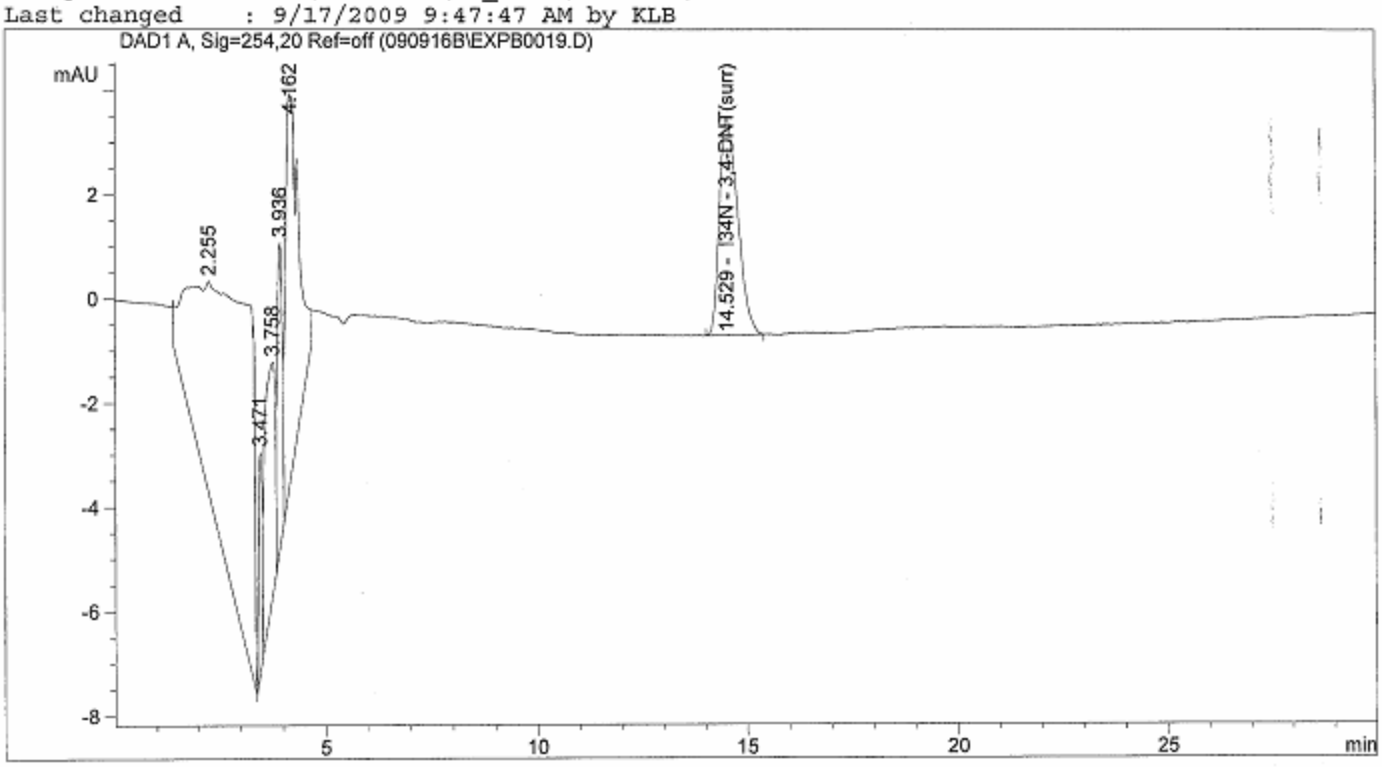
Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0019.D Sample Name: 130230-06X2

```
==================================================================
Injection Date  : 9/16/2009 7:17:33 PM          Seq. Line :  19
Sample Name     : 130230-06X2                    Location : Vial 19
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.529	PB	126.58882	4.50288	570.01370		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0019.D Sample Name: 130230-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 570.01370

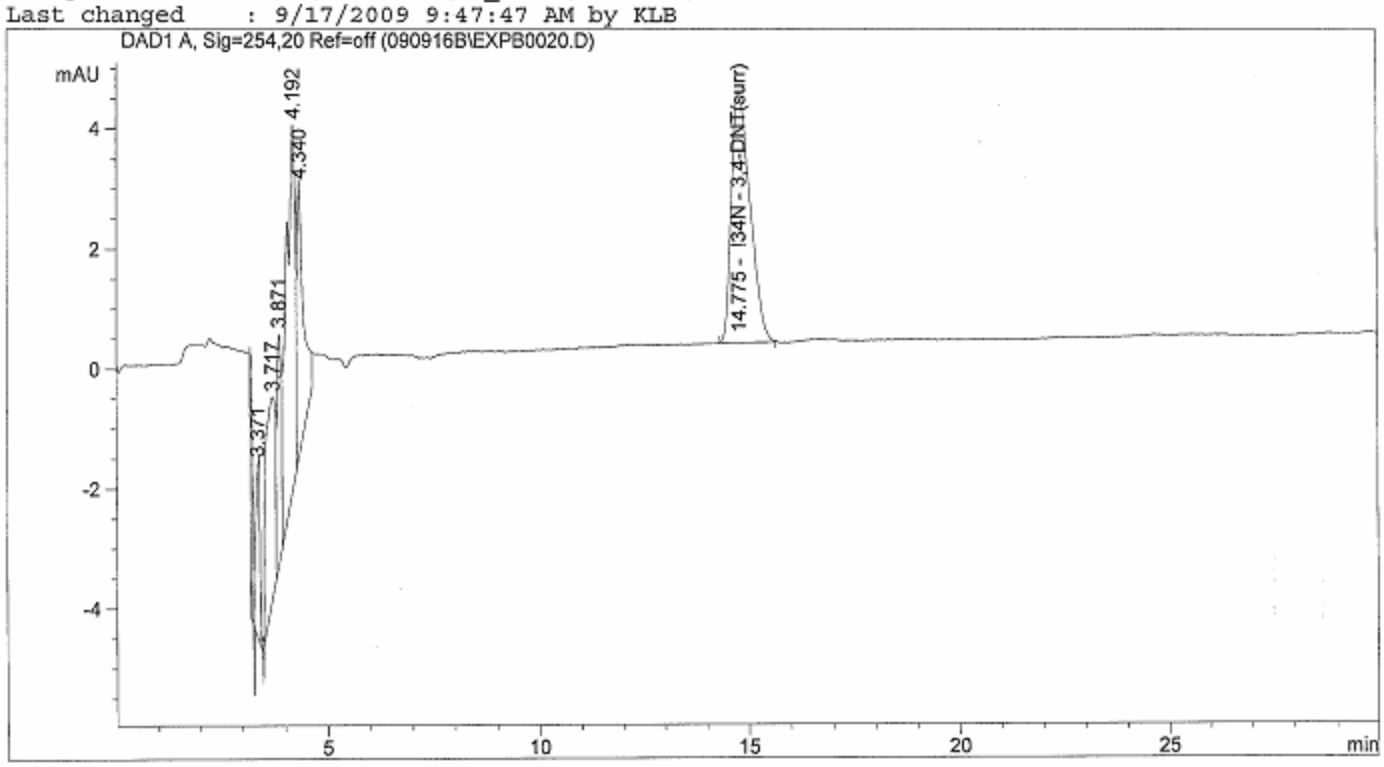
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0020.D Sample Name: 130231-06X2

```
==================================================================
Injection Date  : 9/16/2009 7:51:17 PM          Seq. Line :  20
Sample Name     : 130231-06X2                    Location : Vial 20
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.775	BB	130.41936	4.51046	588.25152		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0020.D Sample Name: 130231-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 588.25152

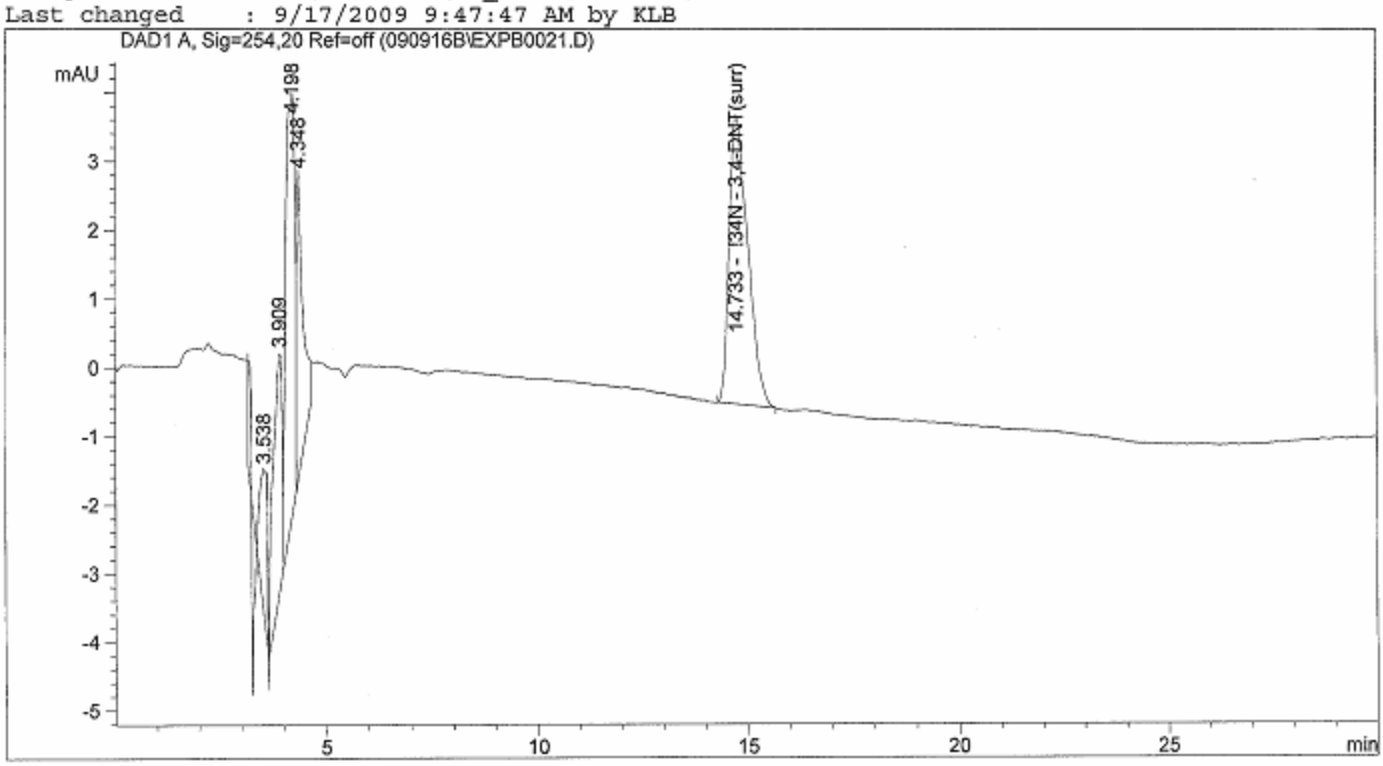
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0021.D Sample Name: 130232-06X2

```
==================================================================
Injection Date  : 9/16/2009 8:25:02 PM          Seq. Line :  21
Sample Name     : 130232-06X2                    Location : Vial 21
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.733	PB	129.16020	4.50802	582.25647		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121699

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0021.D Sample Name: 130232-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 582.25647

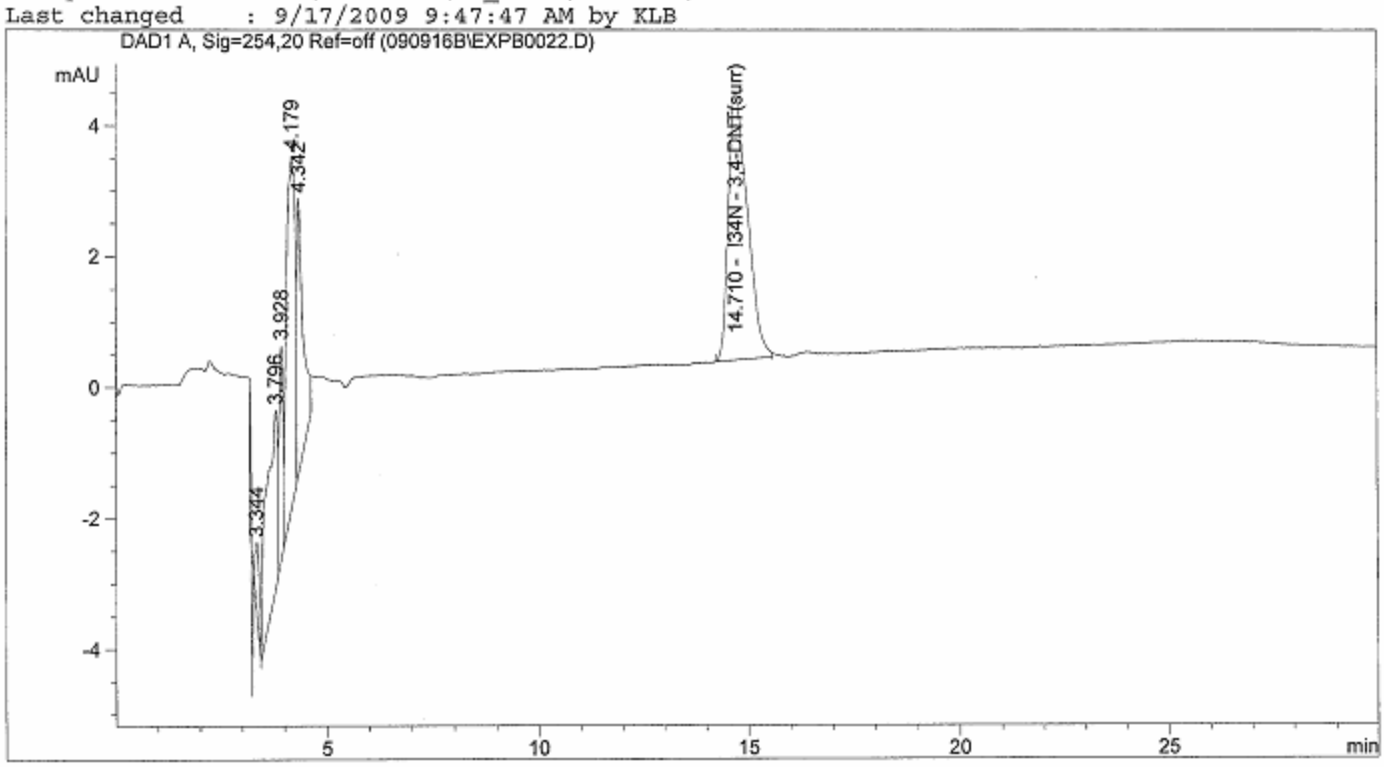
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0022.D Sample Name: 130233-06X2

```
==================================================================
Injection Date  : 9/16/2009 8:58:46 PM          Seq. Line :  22
Sample Name     : 130233-06X2                    Location : Vial 22
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.710	BB	128.06175	4.50585	577.02657		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0022.D Sample Name: 130233-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 577.02657

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0023.D Sample Name: 130234-06X2

```
==================================================================
Injection Date  : 9/16/2009 9:32:31 PM          Seq. Line :  23
Sample Name     : 130234-06X2                    Location : Vial 23
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
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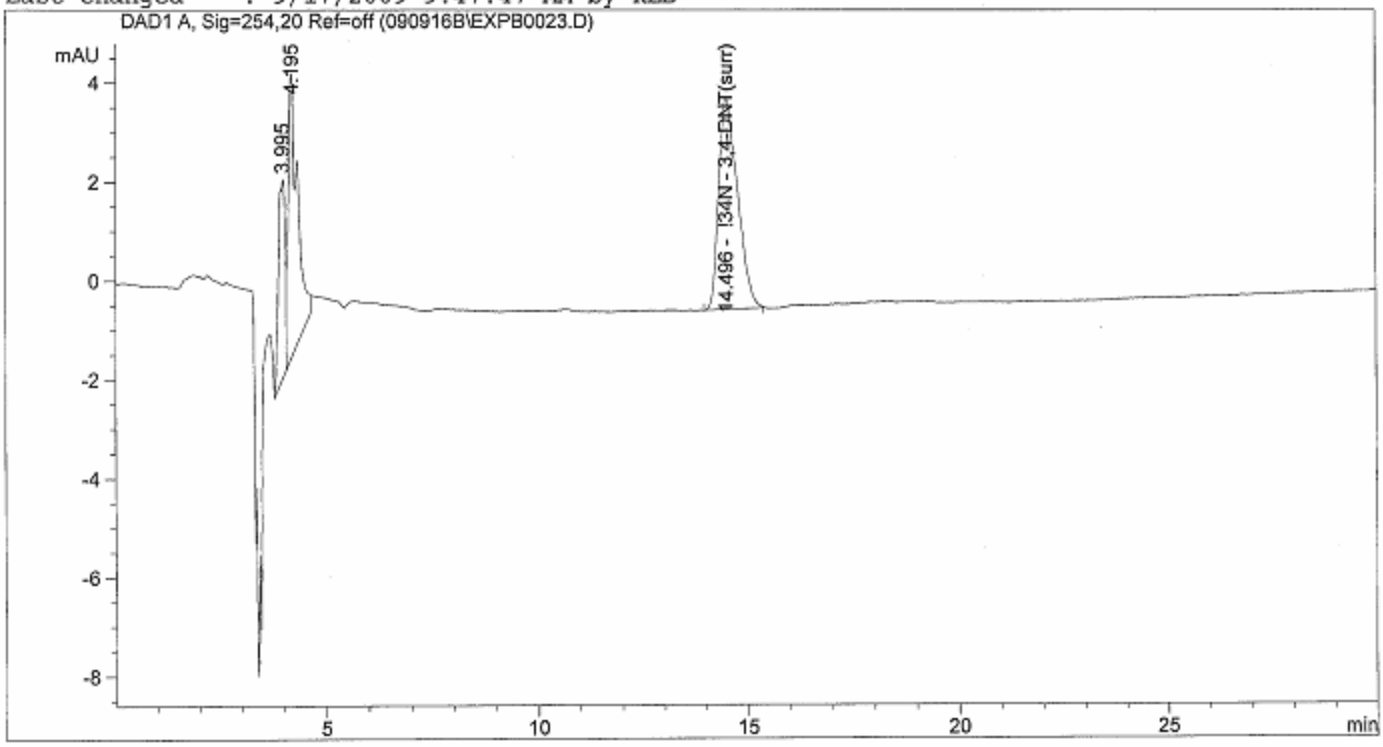



```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.496	PB	134.46942	4.51801	607.53454		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0023.D Sample Name: 130234-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 607.53454

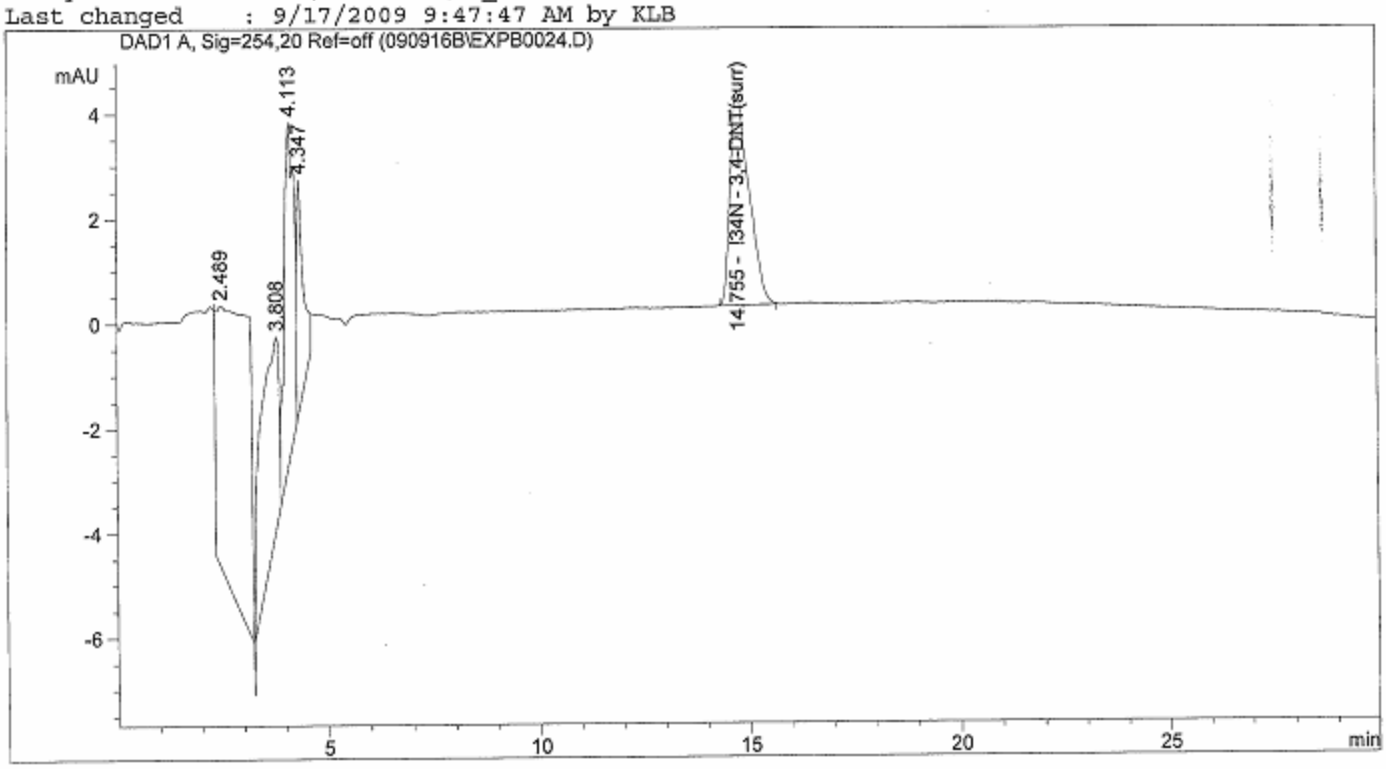
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0024.D Sample Name: 130235-06X2

```
==================================================================
Injection Date  : 9/16/2009 10:06:16 PM          Seq. Line :  24
Sample Name     : 130235-06X2                     Location : Vial 24
Acq. Operator   : KLB                                  Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.755	BB	127.58015	4.50488	574.73360		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121711

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0024.D Sample Name: 130235-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 574.73360

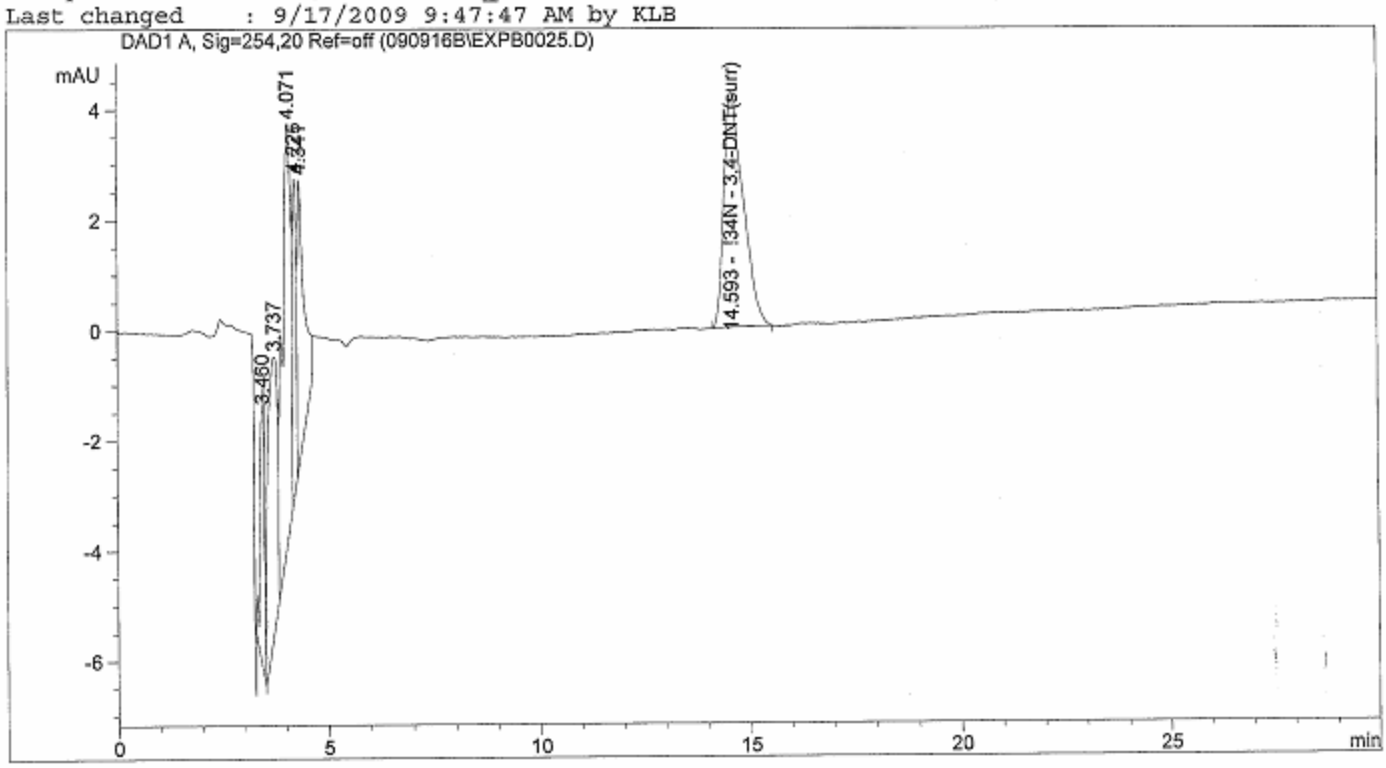
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0025.D Sample Name: 130236-06X2

```
==================================================================
Injection Date  : 9/16/2009 10:40:01 PM          Seq. Line :  25
Sample Name     : 130236-06X2                     Location : Vial 25
Acq. Operator   : KLB                                  Inj :   1
Acq. Instrument : 3M_1090                        Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.593	BP	136.16417	4.52104	615.60352		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121715

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0025.D Sample Name: 130236-06X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 615.60352

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

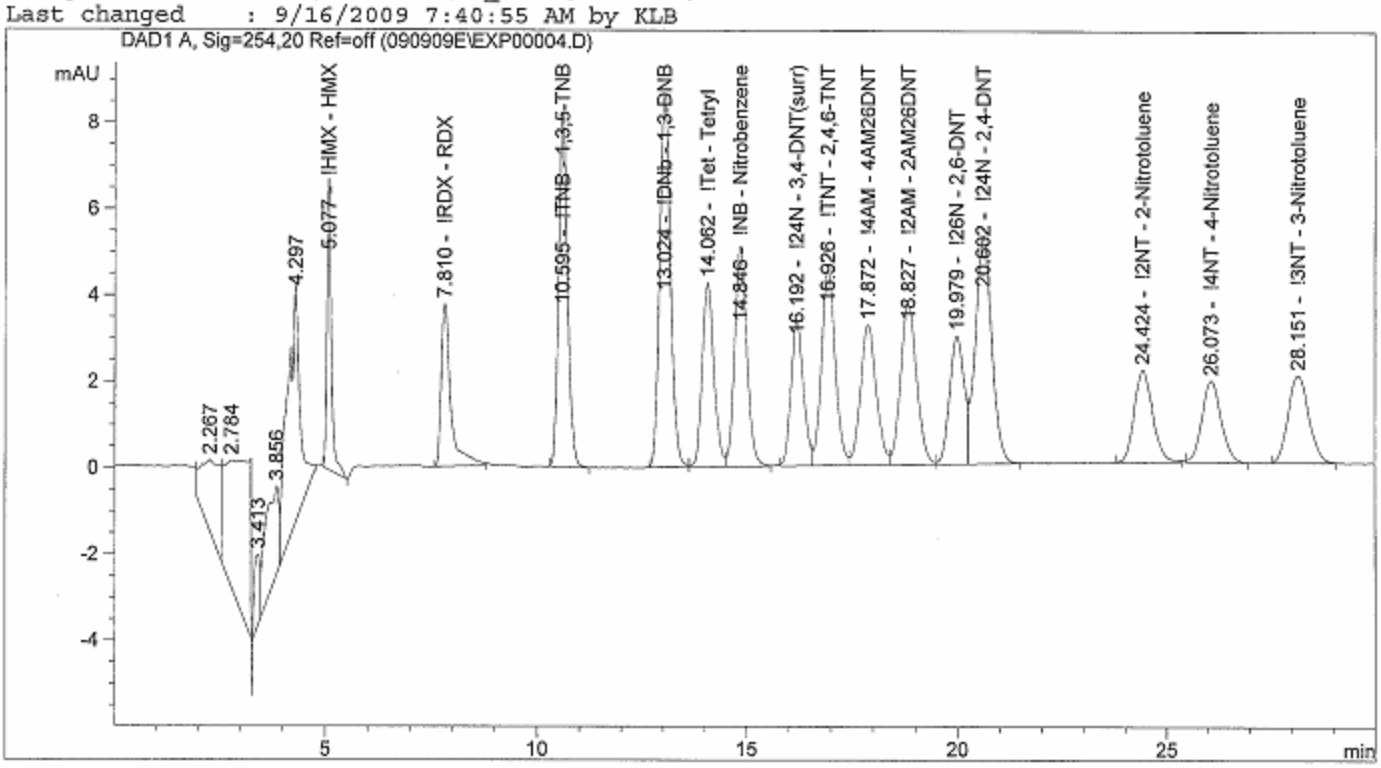
==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00004.D Sample Name: 250 PPB EXP

P5830EXP

==========

Injection Date : 9/9/2009 6:43:11 PM Seq. Line : 4
Sample Name : 250 PPB EXP Location : Vial 2
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\83300LD.M
Last changed : 9/9/2009 4:55:21 PM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\83300LD.M
Last changed : 9/16/2009 7:40:55 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.077	BP	48.60519	6.21862	302.25734		!HMX - HMX
7.810	PB	59.62284	5.00119	298.18505		!RDX - RDX
10.595	BP	121.23483	2.45973	298.20461		!TNB - 1,3,5-TNB
13.024	BV	155.45505	1.91680	297.97608		!DNb - 1,3-DNB
14.062	VV	83.21619	3.56978	297.06330		!Tet - Tetryl
14.846	VB	103.25811	2.89277	298.70152		!NB - Nitrobenzene
16.192	BV	69.06384	4.28774	296.12777		!24N - 3,4-DNT(surr)
16.926	VV	101.63210	2.90630	295.37297		!TNT - 2,4,6-TNT
17.872	VV	84.46613	3.50844	296.34463		!4AM - 4AM26DNT
18.827	VV	98.84470	2.98901	295.44782		!2AM - 2AM26DNT
19.979	VV	70.84776	4.19002	296.85377		!26N - 2,6-DNT
20.602	VB	142.97261	2.05695	294.08747		!24N - 2,4-DNT
24.424	BB	67.43701	4.59030	309.55643		!2NT - 2-Nitrotoluene

00121719

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00004.D Sample Name: 250 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
26.073	BB	61.09035	5.04761	308.36050		!4NT - 4-Nitrotoluene
28.151	BB	69.58823	4.29821	299.10495		!3NT - 3-Nitrotoluene

Totals : 4483.64419

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

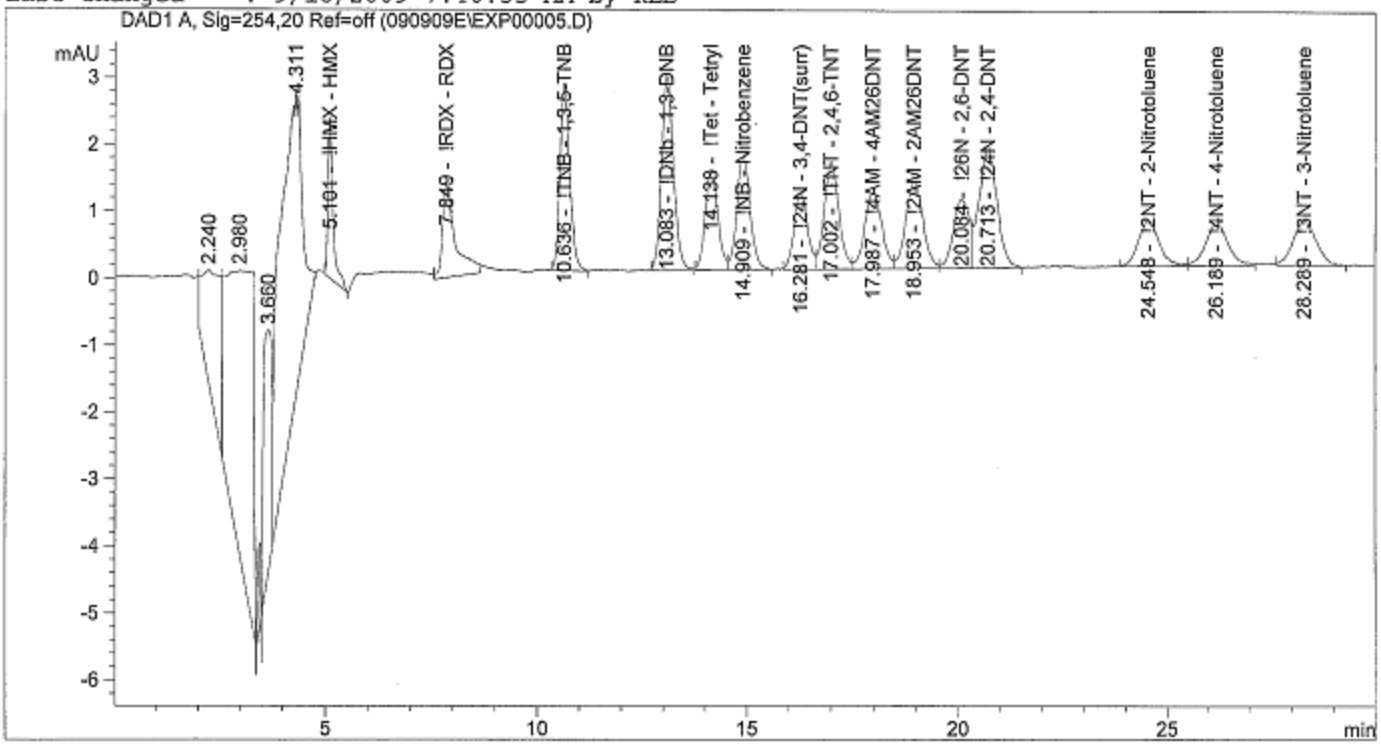
==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00005.D Sample Name: 100 PPB EXP

P5830EXP

==========

Injection Date : 9/9/2009 7:16:56 PM Seq. Line : 5
Sample Name : 100 PPB EXP Location : Vial 3
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/9/2009 4:55:21 PM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 7:40:55 AM by KLB



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External Standard Report

==========

Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.101	BP	19.71303	4.66322	91.92614		!HMX - HMX
7.849	BB	29.76715	3.79983	113.11015		!RDX - RDX
10.636	BP	45.12463	2.02352	91.31062		!TNB - 1,3,5-TNB
13.083	BB	57.51772	1.57749	90.73357		!DNb - 1,3-DNB
14.138	BV	31.72174	2.94944	93.56139		!Tet - Tetryl
14.909	VB	37.81215	2.37216	89.69637		!NB - Nitrobenzene
16.281	BV	26.02215	3.50467	91.19913		!24N - 3,4-DNT(surr)
17.002	VV	38.59296	2.37554	91.67901		!TNT - 2,4,6-TNT
17.987	VV	32.60670	2.88821	94.17499		!4AM - 4AM26DNT
18.953	VV	37.38066	2.47403	92.48097		!2AM - 2AM26DNT
20.084	VV	27.95852	3.48842	97.53099		!26N - 2,6-DNT
20.713	VP	53.35945	1.70117	90.77375		!24N - 2,4-DNT
24.548	BB	24.58012	3.71085	91.21325		!2NT - 2-Nitrotoluene

00121723

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00005.D Sample Name: 100 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
26.189	BB	24.43767	4.14975	101.41012		!4NT - 4-Nitrotoluene
28.289	BB	26.16668	3.78028	98.91728		!3NT - 3-Nitrotoluene

Totals : 1419.71772

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

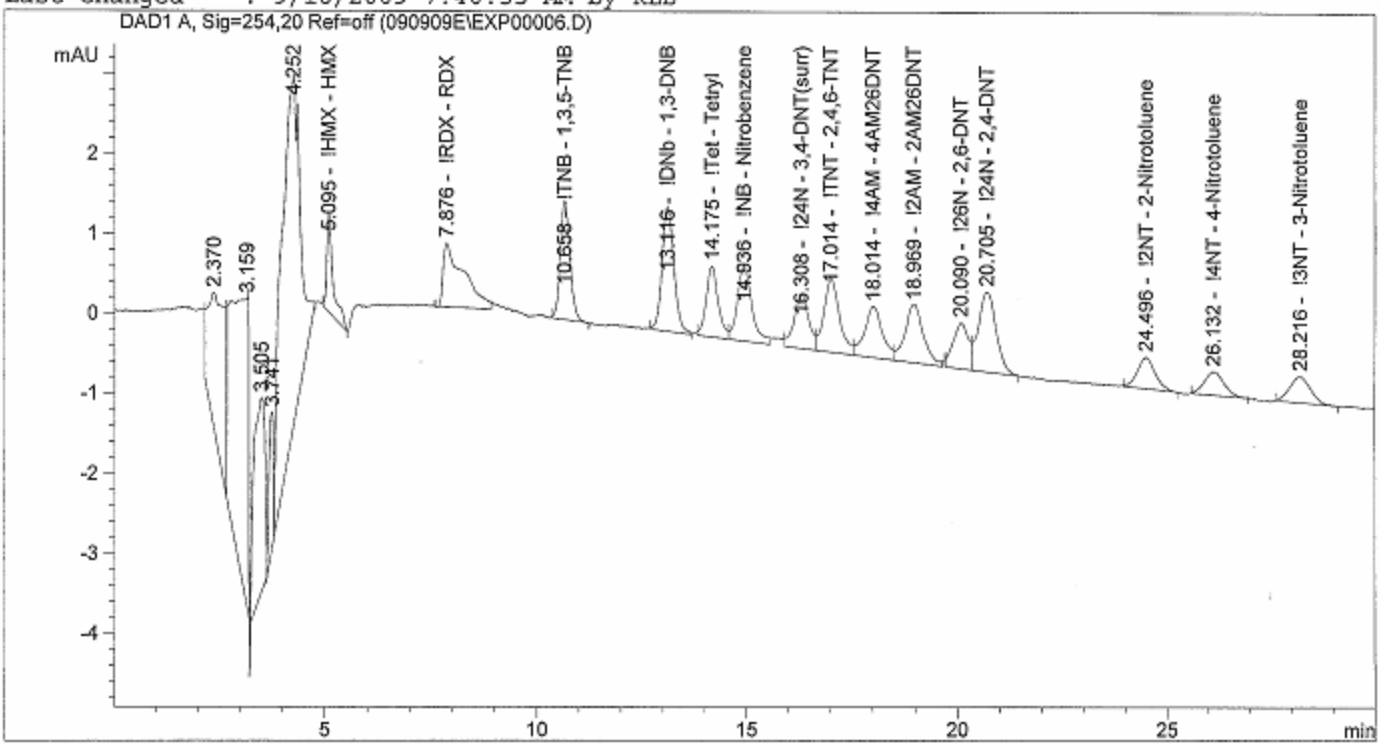
==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00006.D Sample Name: 50 PPB EXP

P5830EXP

==========

Injection Date : 9/9/2009 7:50:42 PM Seq. Line : 6
Sample Name : 50 PPB EXP Location : Vial 4
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/9/2009 4:55:21 PM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 7:40:55 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.095	BP	12.80501	3.25159	41.63665		!HMX - HMX
7.876	PB	26.98377	3.55236	95.85605		!RDX - RDX
10.658	BP	23.57433	1.38835	32.72942		!TNB - 1,3,5-TNB
13.116	BB	30.80754	1.11054	34.21288		!DNb - 1,3-DNB
14.175	BV	17.72947	2.15827	38.26506		!Tet - Tetryl
14.936	VB	22.62304	1.82067	41.18913		!NB - Nitrobenzene
16.308	BV	16.80984	2.81608	47.33781		!24N - 3,4-DNT(surr)
17.014	VV	23.85797	1.84705	44.06687		!TNT - 2,4,6-TNT
18.014	VV	18.94472	2.15970	40.91490		!4AM - 4AM26DNT
18.969	VB	21.84171	1.88484	41.16816		!2AM - 2AM26DNT
20.090	BV	14.55606	2.42130	35.24461		!26N - 2,6-DNT
20.705	VB	29.24931	1.23329	36.07282		!24N - 2,4-DNT
24.496	BP	11.65680	2.17665	25.37275		!2NT - 2-Nitrotoluene

00121727

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00006.D Sample Name: 50 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
26.132	BB	9.97963	1.98167	19.77633		!4NT - 4-Nitrotoluene
28.216	BP	11.17734	2.66714	29.81148		!3NT - 3-Nitrotoluene

Totals : 603.65493

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========
*** End of Report ***

00121729

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00007.D Sample Name: 25 PPB EXP

P5830EXP

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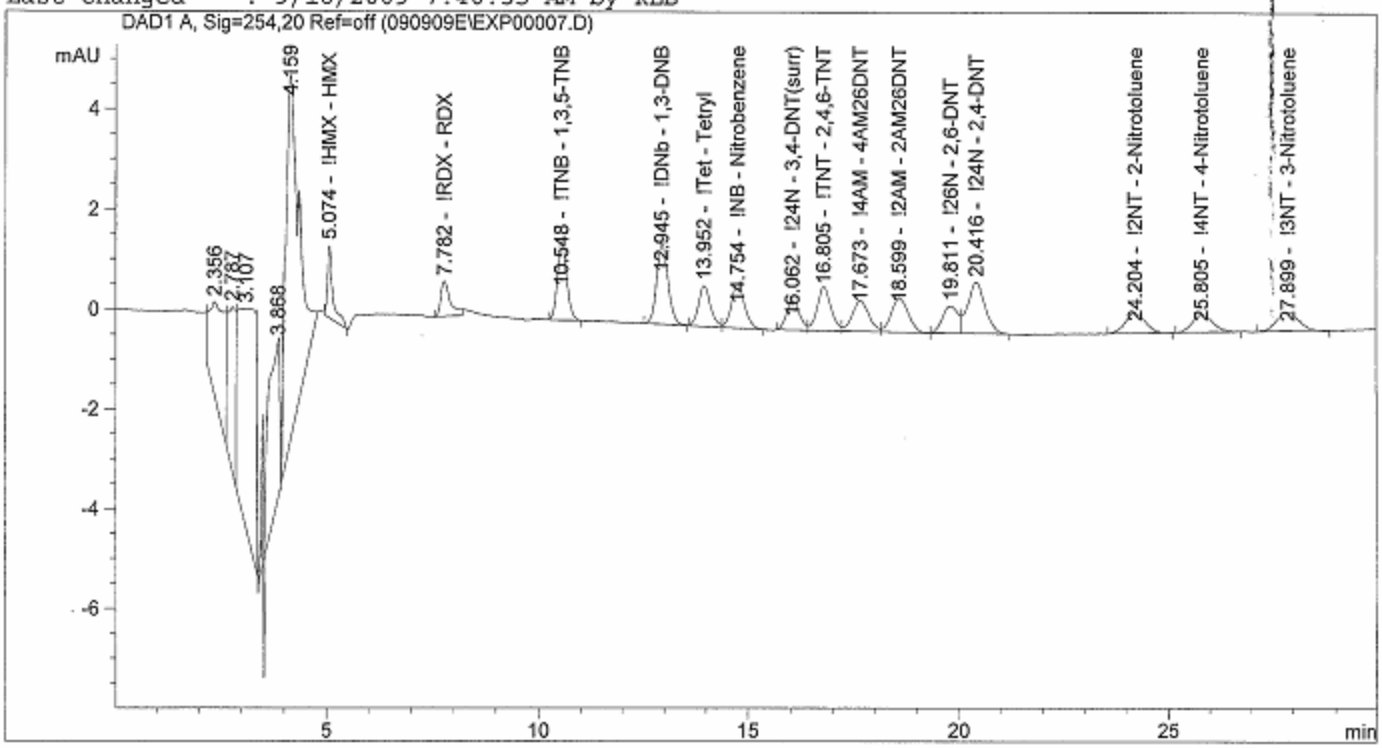
Injection Date : 9/9/2009 8:24:27 PM Seq. Line : 7
Sample Name : 25 PPB EXP Location : Vial 5
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/9/2009 8:54:23 PM by KLB
(modified after loading)
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 7:40:55 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074	BP	12.82665	3.25839	41.79420		!HMX - HMX
7.782	PB	11.10980	0.00000	0.00000		!RDX - RDX
10.548	BB	24.53720	1.44054	35.34683		!TNB - 1,3,5-TNB
12.945	BB	30.85867	1.11220	34.32108		!DNb - 1,3-DNB
13.952	BV	16.28469	1.99914	32.55540		!Tet - Tetryl
14.754	VP	19.64218	1.61233	31.66959		!NB - Nitrobenzene
16.062	BV	12.99434	2.24495	29.17158		!24N - 3,4-DNT(surr)
16.805	VV	20.03268	1.58274	31.70649		!TNT - 2,4,6-TNT
17.673	VV	16.76455	1.93359	32.41571		!4AM - 4AM26DNT
18.599	VP	18.85807	1.66059	31.31556		!2AM - 2AM26DNT
19.811	BV	13.80882	2.30084	31.77190		!26N - 2,6-DNT
20.416	VP	29.24904	1.23328	36.07222		!24N - 2,4-DNT

00121731

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00007.D Sample Name: 25 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
24.204	BB	13.45800	2.56720	34.54934		!2NT - 2-Nitrotoluene
25.805	BB	12.48523	2.71710	33.92355		!4NT - 4-Nitrotoluene
27.899	PB	13.85663	3.04287	42.16388		!3NT - 3-Nitrotoluene
Totals :				478.77735		

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept), (!RDX - RDX)

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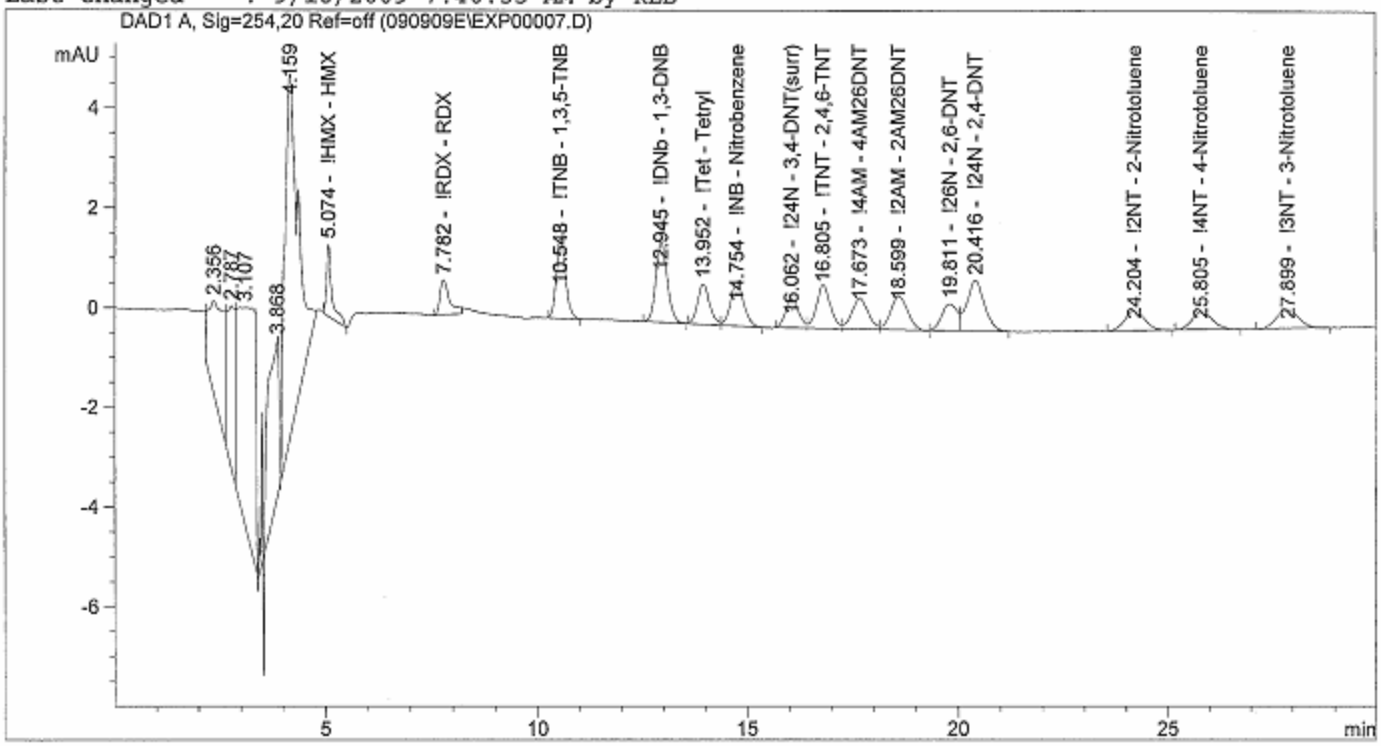
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00007.D Sample Name: 25 PPB EXP

P5830EXP

==========

Injection Date : 9/9/2009 8:24:27 PM Seq. Line : 7
Sample Name : 25 PPB EXP Location : Vial 5
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/9/2009 8:54:23 PM by KLB
(modified after loading)
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 7:40:55 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074	BP	12.82665	3.25839	41.79420		!HMX - HMX
7.782	PB	11.10980	0.00000	0.00000		!RDX - RDX
10.548	BB	24.53720	1.44054	35.34683		!TNB - 1,3,5-TNB
12.945	BB	30.85867	1.11220	34.32108		!DNb - 1,3-DNB
13.952	BV	16.28469	1.99914	32.55540		!Tet - Tetryl
14.754	VP	19.64218	1.61233	31.66959		!NB - Nitrobenzene
16.062	BV	12.99434	2.24495	29.17158		!24N - 3,4-DNT(surr)
16.805	VV	20.03268	1.58274	31.70649		!TNT - 2,4,6-TNT
17.673	VV	16.76455	1.93359	32.41571		!4AM - 4AM26DNT
18.599	VP	18.85807	1.66059	31.31556		!2AM - 2AM26DNT
19.811	BV	13.80882	2.30084	31.77190		!26N - 2,6-DNT
20.416	VP	29.24904	1.23328	36.07222		!24N - 2,4-DNT

00121735

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00007.D Sample Name: 25 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
24.204	BB	13.45800	2.56720	34.54934		!2NT - 2-Nitrotoluene
25.805	BB	12.48523	2.71710	33.92355		!4NT - 4-Nitrotoluene
27.899	PB	13.85663	3.04287	42.16388		!3NT - 3-Nitrotoluene

Totals : 478.77735

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Negative results set to zero (cal. curve intercept), (!RDX - RDX)

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*** End of Report ***

00121737

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00008.D Sample Name: 500 PPB ICV EXP

P5401EXP

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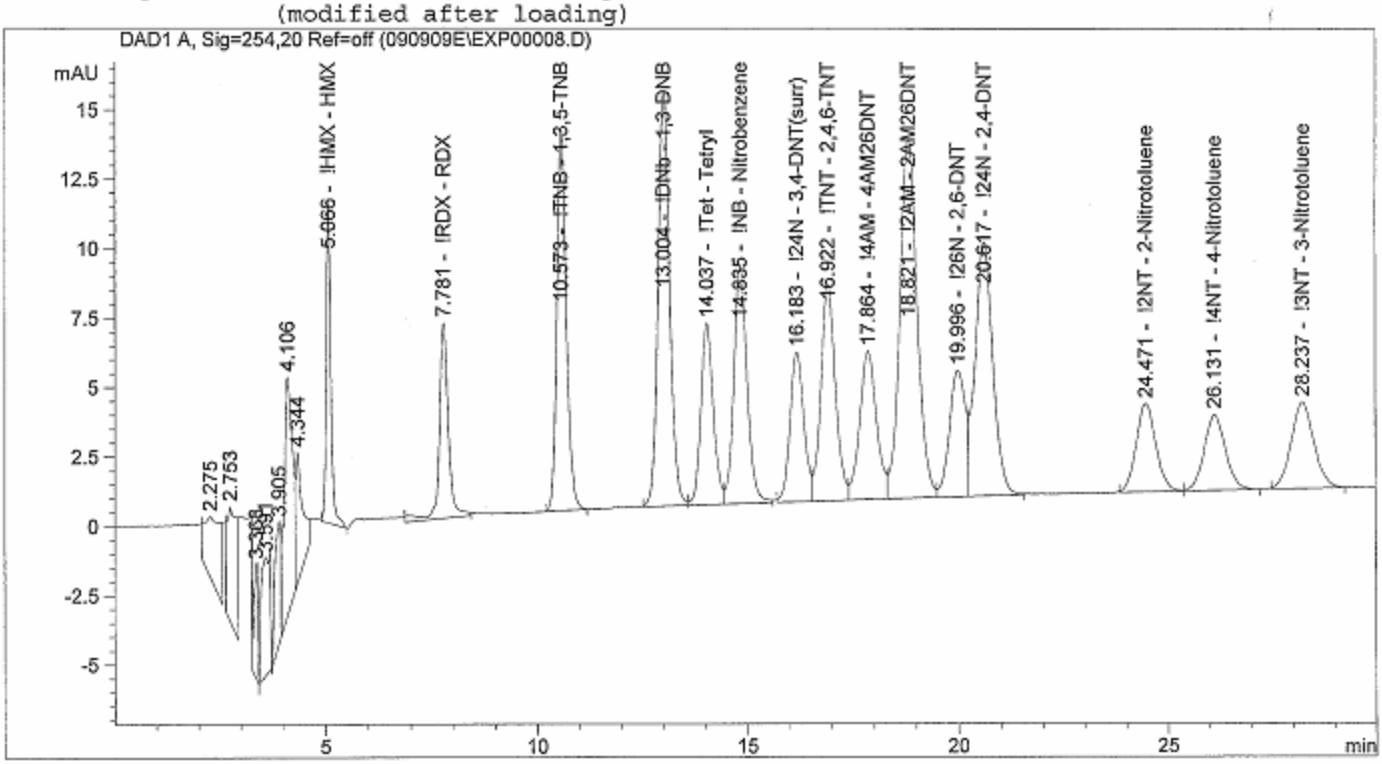
Injection Date : 9/9/2009 8:58:12 PM Seq. Line : 8
Sample Name : 500 PPB ICV EXP Location : Vial 6
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/9/2009 9:04:55 PM by KLB
(modified after loading)
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 7:44:53 AM by KLB
(modified after loading)



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : Wednesday, September 16, 2009 7:39:30 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.066	BP	83.37801	6.66122	555.39890		!HMX - HMX
7.781	BB	105.54620	5.52235	582.86306		!RDX - RDX
10.573	BB	216.19559	2.57332	556.34095		!TNB - 1,3,5-TNB
13.004	BV	287.61081	2.00836	577.62728		!DNb - 1,3-DNB
14.037	VV	134.52408	3.71553	499.82790		!Tet - Tetryl
14.835	VB	188.00539	3.02835	569.34646		!NB - Nitrobenzene
16.183	BV	123.04739	4.49544	553.15238		!24N - 3,4-DNT(surr)
16.922	VV	185.63054	3.05333	566.79122		!TNT - 2,4,6-TNT
17.864	VV	147.84695	3.67562	543.42944		!4AM - 4AM26DNT
18.821	VV	370.46597	3.21864	1192.39690		!2AM - 2AM26DNT
19.996	VV	120.44144	4.37835	527.33472		!26N - 2,6-DNT

00121739

Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00008.D Sample Name: 500 PPB ICV EXP

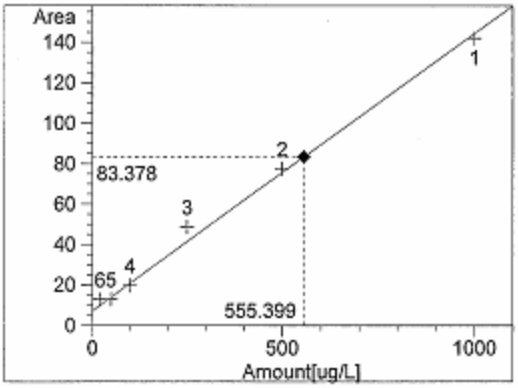
RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
20.617	VB	264.21017	2.15416	569.15042		!24N - 2,4-DNT
24.471	BB	106.01408	4.77385	506.09517		!2NT - 2-Nitrotoluene
26.131	BB	97.33338	5.27052	512.99795		!4NT - 4-Nitrotoluene
28.237	BB	117.34077	4.42523	519.25996		!3NT - 3-Nitrotoluene

Totals : 8832.01273

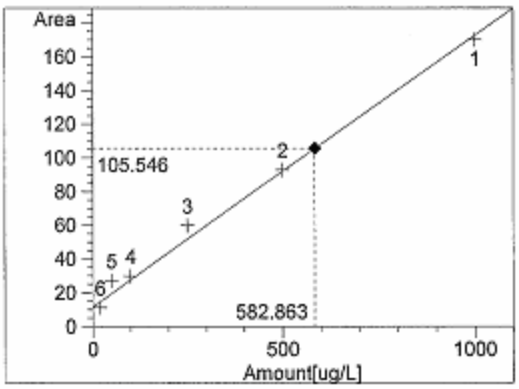
Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

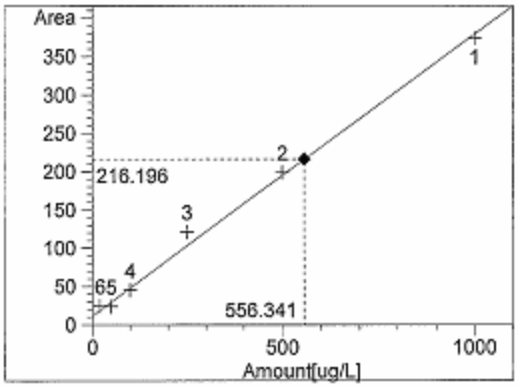
Calibration Curves



!HMX - HMX at exp. RT: 5.074
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99596
Residual Std. Dev.: 4.95293
Formula: y = mx + b
m: 1.37365e-1
b: 7.08558
x: Amount [ug/L]
y: Area

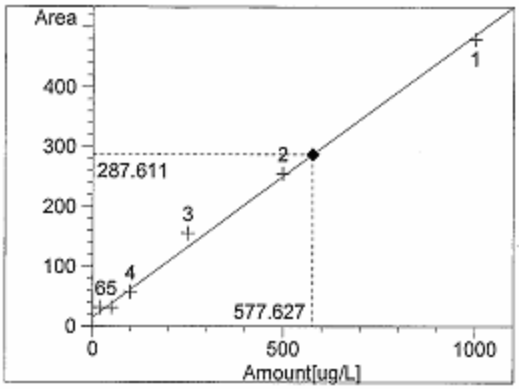


!RDX - RDX at exp. RT: 7.782
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99348
Residual Std. Dev.: 7.39856
Formula: y = mx + b
m: 1.61317e-1
b: 11.52057
x: Amount [ug/L]
y: Area

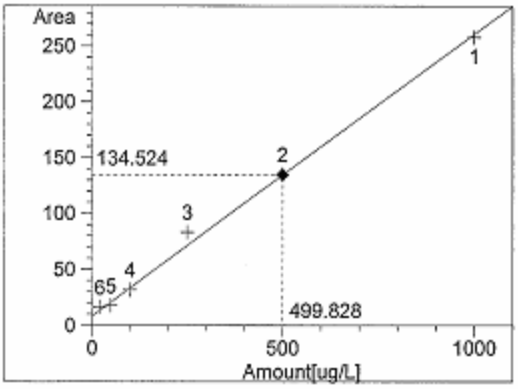


!TNB - 1,3,5-TNB at exp. RT: 10.548
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99737
Residual Std. Dev.: 10.68532
Formula: y = mx + b
m: 3.67871e-1
b: 11.53414
x: Amount [ug/L]
y: Area

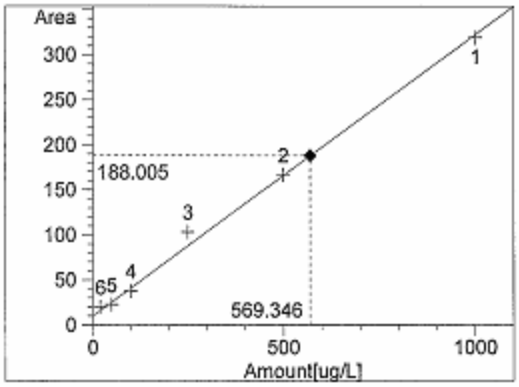
Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00008.D Sample Name: 500 PPB ICV EXP



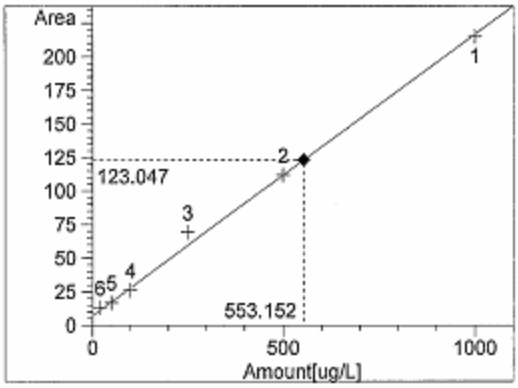
!DNb - 1,3-DNB at exp. RT: 12.945
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99745
Residual Std. Dev.: 13.52648
Formula: y = mx + b
m: 4.72574e-1
b: 14.63944
x: Amount[ug/L]
y: Area



!Tet - Tetryl at exp. RT: 13.952
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99769
Residual Std. Dev.: 6.89324
Formula: y = mx + b
m: 2.53042e-1
b: 8.04682
x: Amount[ug/L]
y: Area

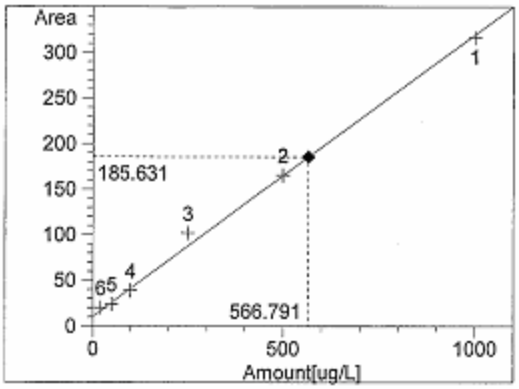


!NB - Nitrobenzene at exp. RT: 14.754
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99763
Residual Std. Dev.: 8.62677
Formula: y = mx + b
m: 3.13131e-1
b: 9.72546
x: Amount[ug/L]
y: Area

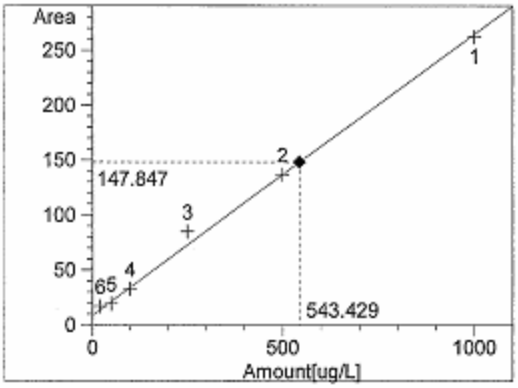


!24N - 3,4-DNT(surr) at exp. RT: 16.062
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99783
Residual Std. Dev.: 5.53437
Formula: y = mx + b
m: 2.10033e-1
b: 6.86736
x: Amount[ug/L]
y: Area

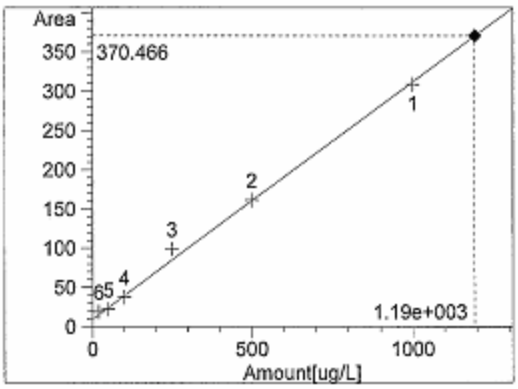
Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00008.D Sample Name: 500 PPB ICV EXP



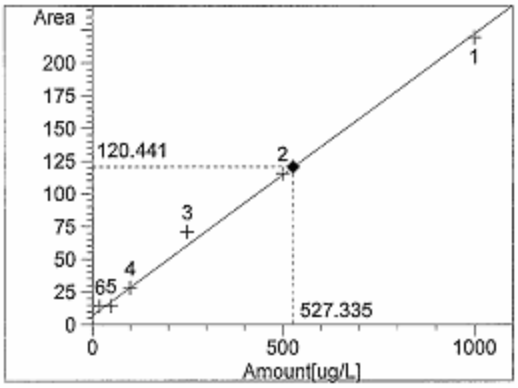
!TNT - 2,4,6-TNT at exp. RT: 16.805
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99781
Residual Std. Dev.: 8.20622
Formula: y = mx + b
m: 3.09480e-1
b: 10.22017
x: Amount [ug/L]
y: Area



!4AM - 4AM26DNT at exp. RT: 17.673
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99774
Residual Std. Dev.: 6.89987
Formula: y = mx + b
m: 2.56514e-1
b: 8.44946
x: Amount [ug/L]
y: Area

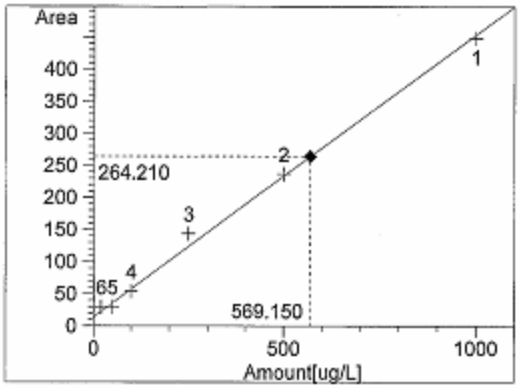


!2AM - 2AM26DNT at exp. RT: 18.599
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99787
Residual Std. Dev.: 7.91820
Formula: y = mx + b
m: 3.02828e-1
b: 9.37484
x: Amount [ug/L]
y: Area

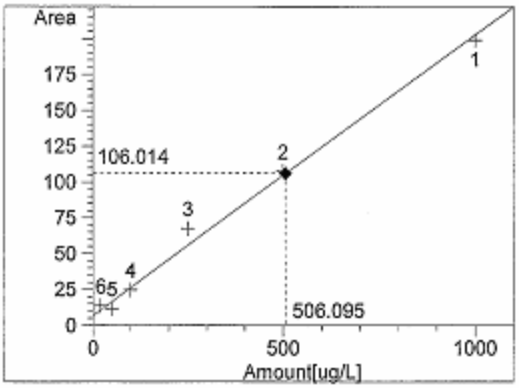


!26N - 2,6-DNT at exp. RT: 19.811
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99764
Residual Std. Dev.: 5.92436
Formula: y = mx + b
m: 2.15175e-1
b: 6.97231
x: Amount [ug/L]
y: Area

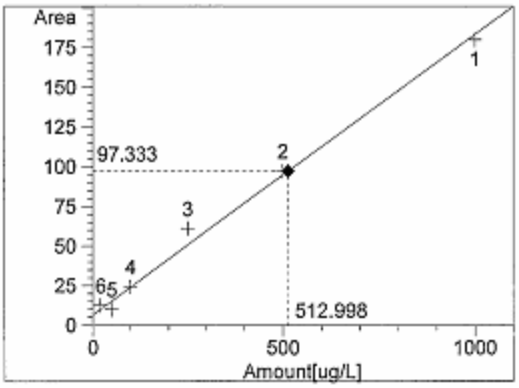
Data File C:\HPLCDATA\3M_1090\DATA\090909E\EXP00008.D Sample Name: 500 PPB ICV EXP



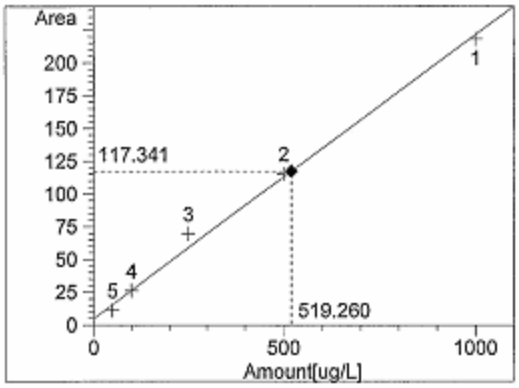
!24N - 2,4-DNT at exp. RT: 20.416
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99776
Residual Std. Dev.: 11.82143
Formula: y = mx + b
m: 4.40763e-1
b: 13.34975
x: Amount[ug/L]
y: Area



!2NT - 2-Nitrotoluene at exp. RT: 24.204
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99618
Residual Std. Dev.: 6.87926
Formula: y = mx + b
m: 1.96282e-1
b: 6.67658
x: Amount[ug/L]
y: Area



!4NT - 4-Nitrotoluene at exp. RT: 25.805
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99600
Residual Std. Dev.: 6.35167
Formula: y = mx + b
m: 1.77109e-1
b: 6.47708
x: Amount[ug/L]
y: Area



!3NT - 3-Nitrotoluene at exp. RT: 27.899
DAD1 A, Sig=254,20 Ref=off
Correlation: 0.99748
Residual Std. Dev.: 6.55765
Formula: y = mx + b
m: 2.16904e-1
b: 4.71111
x: Amount[ug/L]
y: Area

==========

*** End of Report ***

00121747

Sequence: C:\HPLCDATA\3M_1090\SEQUENCE\090916.S

334825

Sequence Table:

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 0	500 PPB EXP	8330OLD	1	Sample		
2	Vial 0	CCV 500 PPB EXP	8330OLD	1	Sample		

00121749

Sequence: C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S

Sequence Table:

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	333598 BLK0908	8330OLD	1	Sample		
2	Vial 2	333598 LCS	8330OLD	1	Sample		
3	Vial 3	129609-02X2	8330OLD	1	Sample		
4	Vial 4	129610-02X2	8330OLD	1	Sample		
5	Vial 5	129611-02X2	8330OLD	1	Sample		
6	Vial 6	129612-02X2	8330OLD	1	Sample		
7	Vial 7	129613-02X2	8330OLD	1	Sample		
8	Vial 8	129614-02X2	8330OLD	1	Sample		
9	Vial 9	129615-02X2	8330OLD	1	Sample		
10	Vial 10	129616-02X2	8330OLD	1	Sample		
11	Vial 11	129617-02X2	8330OLD	1	Sample		
12	Vial 12	129618-02X2	8330OLD	1	Sample		
13	Vial 13	CCV 1000 PPB EXP	8330OLD	1	Sample		
14	Vial 14	129619-07X2	8330OLD	1	Sample		
15	Vial 15	129620-02X2	8330OLD	1	Sample		
16	Vial 16	130228-06X2	8330OLD	1	Sample		
17	Vial 17	130228-07S1X2	8330OLD	1	Sample		
18	Vial 18	130228-08S2X2	8330OLD	1	Sample		
19	Vial 19	130230-06X2	8330OLD	1	Sample		
20	Vial 20	130231-07X2	8330OLD	1	Sample		
21	Vial 21	130232-06X2	8330OLD	1	Sample		
22	Vial 22	130233-06X2	8330OLD	1	Sample		
23	Vial 23	130234-06X2	8330OLD	1	Sample		
24	Vial 24	130235-06X2	8330OLD	1	Sample		
25	Vial 25	130236-07X2	8330OLD	1	Sample		
26	Vial 0	CCV 500 PPB EXP	8330OLD	1	Sample		

Level 2 Peer Review

Test Code: EXP QC group: 334832

Please answer the following to the best of your knowledge.

Prep/Analysis Tests	Yes	No	Comments
1. Was the SOP followed?	N/A		
2. Was the holding time met?	↓		

Preparatory Tests[1]:	Yes	No	Comments
1. Is the following sample prep information complete and correct on your bench sheet and in LDS?			
a. Bottle type	N/A		
b. Bottle number	↓		
2. Were there any special sample prep requirements?			
a. If so were they met?	↓		

Analysis Tests[1]:	Yes	No	Comments
1. If required by the analysis (SOP):			
a. Is the calibration data complete?			
b. Are the appropriate calibration points used?			
c. Is calibration data sound?			
2. Are QC samples within established control limits?			
3. Is the analysis data correct?			
a. Raw readings			
b. Calculations			
c. Dilution factors applied			
d. Integrations			
4. If needed, are the data flags appropriate?			
5. Are the analysis results complete, i.e. all of the required documentation present?			
6. Are the results correct?			
7. Were there any special analysis requirements?			
a. If so were they met?			

Note 1.
If the test is prep only, please complete the Preparatory Test section and write "N/A" for the Analysis Test section.
If the test is the analysis only, please N/A the Preparatory Test section and complete the Analysis Test section.
If the test includes the prep and analysis, please complete all sections.

____ problems were found with this data set. Errors, if present are noted in the Level 2 Peer Review checklist.

Corrections, if necessary, include:
LCS/LCSD Recovery >LCL - Samples ND
CCV " " " "
MS/MSD Matrix interference

Weldon H. McFarland, Ph.D. — Printed Name
WHMcFarland — Signature
9/17/09 1112 — Date/Time

C:\Documents and Settings\weldon\My Documents_Level 2 Peer Review Inst-WHM.doc
One page document

Level 1 Analyst Review Checklist

Test Code: !EXP

QC group: 334832

Please answer the following to the best of your knowledge.

Preparatory Tests[1]:	Yes	No	Comments
1. Is the following sample prep information correct on your bench sheet and in LDS?			N/A
a. Bottle type			
b. Bottle number			
c. Holding time met			
2. Were there any special sample prep requirements?			
a. If so were they met?			
3. Is sample prep documentation complete on your bench sheet and in LDS?			
4. Was the SOP followed?			

Analysis Tests[1]:	Yes	No	Comments
1. Is the analysis data correct?			
a. Raw readings	✓		
b. Calculations	✓		
c. Dilution factors applied	✓		
d. Integrations	✓		
2. Was raw data correctly interpreted?	✓		
3. Are the analysis results complete, i.e. all of the required documentation present?	✓		
4. Are QC samples within established control limits?		✓	
5. Were there any special analysis requirements?		✓	
a. If so were they met?			

Kathy Brown — Printed Name

[signature] — Signature

9-17-09 1110 — Date/Time

Note 1:
If your test is prep only, please complete the Preparatory Test section and write "N/A" for the Analysis Test section.
If your test is the analysis only, please N/A the Preparatory Test section and complete the Analysis Test section.
If your test includes the prep and analysis, please complete both sections.

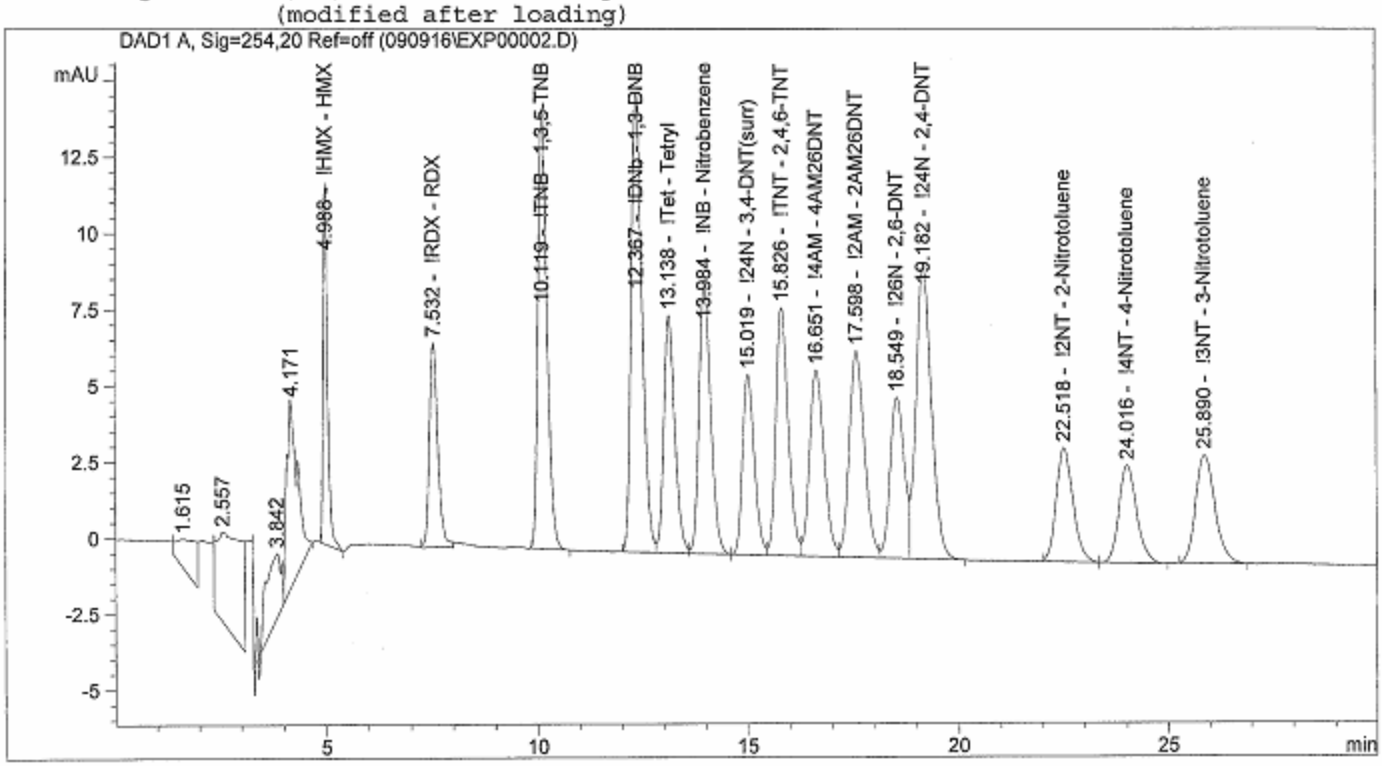
EXPLOSIVE QC

Data File C:\HPLCDATA\3M_1090\DATA\090916\EXP00002.D Sample Name: CCV 500 PPB EXP

P5830EXP

==========

Injection Date : 9/16/2009 8:30:27 AM Seq. Line : 2
Sample Name : CCV 500 PPB EXP Location : Vial 0
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 8:31:15 AM by KLB
(modified after loading)
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/17/2009 8:43:31 AM by KLB
(modified after loading)



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 9/17/2009 8:41:46 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.988	BP	82.69794	6.65613	550.44809		!HMX - HMX
7.532	BB	93.03997	5.43140	505.33720		!RDX - RDX
10.119	BP	213.74718	2.57166	549.68532		!TNB - 1,3,5-TNB
12.367	BV	269.90796	2.00130	540.16676		!DNb - 1,3-DNB
13.138	VV	140.95052	3.72631	525.22466		!Tet - Tetryl
13.984	VV	172.25827	3.01325	519.05720		!NB - Nitrobenzene
15.019	VV	115.68566	4.47853	518.10195		!24N - 3,4-DNT(surr)
15.826	VV	166.65410	3.03307	505.47398		!TNT - 2,4,6-TNT
16.651	VV	146.51025	3.67359	538.21843		!4AM - 4AM26DNT
17.598	VV	167.77776	3.11769	523.07888		!2AM - 2AM26DNT
18.549	VV	122.65884	4.38321	537.63983		!26N - 2,6-DNT

00121759

Data File C:\HPLCDATA\3M_1090\DATA\090916\EXP00002.D Sample Name: CCV 500 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
19.182	VB	245.40408	2.14537	526.48329		!24N - 2,4-DNT
22.518	BP	104.67596	4.76975	499.27789		!2NT - 2-Nitrotoluene
24.016	VP	95.10568	5.26172	500.41979		!4NT - 4-Nitrotoluene
25.890	BB	116.05156	4.42317	513.31625		!3NT - 3-Nitrotoluene

Totals : 7851.92954

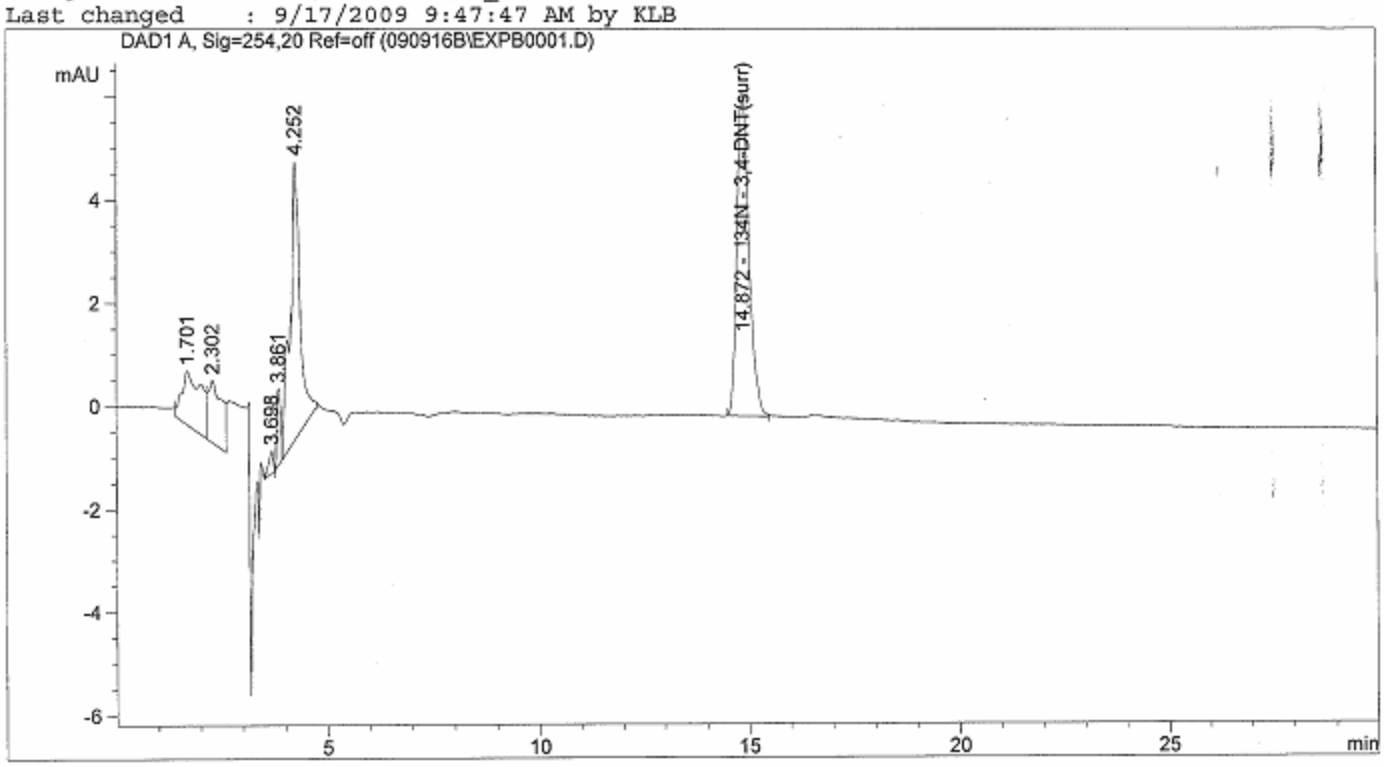
Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0001.D Sample Name: 333598 BLK0908

```
==================================================================
Injection Date  : 9/16/2009 9:09:51 AM          Seq. Line :   1
Sample Name     : 333598 BLK0908                 Location : Vial 1
Acq. Operator   : KLB                                 Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.872	BB	123.75625	4.49696	556.52735		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121763

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0001.D Sample Name: 333598 BLK0908

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 556.52735

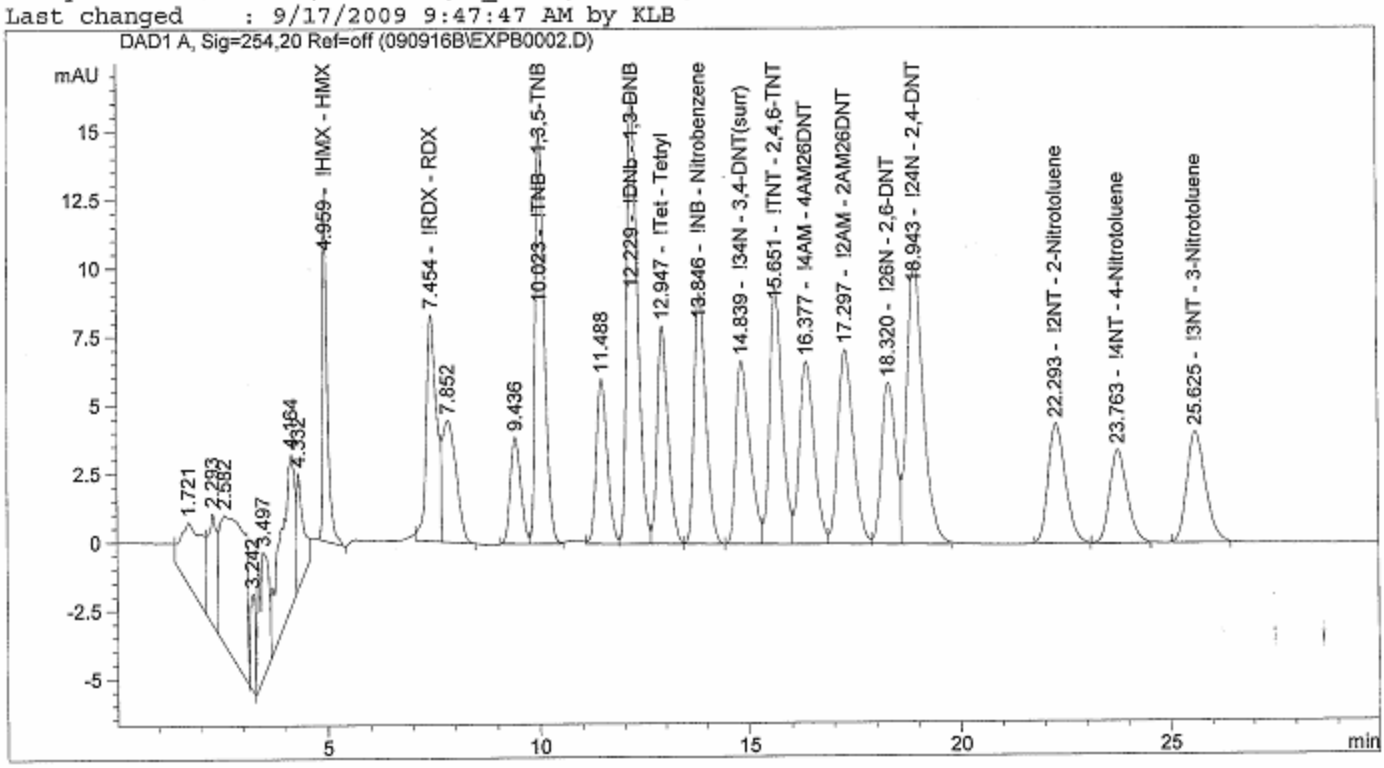
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0002.D Sample Name: 333598 LCS

Injection Date	: 9/16/2009 9:43:36 AM	Seq. Line :	2
Sample Name	: 333598 LCS	Location :	Vial 2
Acq. Operator	: KLB	Inj :	1
Acq. Instrument	: 3M_1090	Inj Volume :	10 µl
Sequence File	: C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S		
Acq. Method	: C:\HPLCDATA\3M_1090\METHODS\8330OLD.M		
Last changed	: 9/16/2009 9:08:57 AM by KLB		
Analysis Method	: C:\HPLCDATA\3M_1090\METHODS\8330OLD.M		
Last changed	: 9/17/2009 9:47:47 AM by KLB		



External Standard Report

Sorted By	:	Signal
Calib. Data Modified	:	9/17/2009 9:47:19 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.959	BP	93.33655	6.72722	627.89572		!HMX - HMX
7.454	BV	140.00046	5.68887	796.44438		!RDX - RDX
10.023	VB	224.51981	2.57870	578.96907		!TNB - 1,3,5-TNB
12.229	VV	299.15652	2.01252	602.05886		!DNb - 1,3-DNB
12.947	VV	144.67427	3.73211	539.94064		!Tet - Tetryl
13.846	VP	179.62761	3.02065	542.59158		!NB - Nitrobenzene
14.839	VV	156.84885	4.55271	714.08669		!34N - 3,4-DNT(surr)
15.651	VV	193.98511	3.06099	593.78675		!TNT - 2,4,6-TNT
16.377	VV	163.88681	3.69743	605.95947		!4AM - 4AM26DNT
17.297	VV	180.93344	3.13111	566.52165		!2AM - 2AM26DNT
18.320	VV	136.18207	4.40945	600.48746		!26N - 2,6-DNT
18.943	VB	276.75827	2.15936	597.61945		!24N - 2,4-DNT
22.293	BB	129.07019	4.83116	623.55926		!2NT - 2-Nitrotoluene
23.763	BB	100.84772	5.28362	532.84079		!4NT - 4-Nitrotoluene

00121767

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0002.D Sample Name: 333598 LCS

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.625	BB	128.62479	4.44147	571.28298		!3NT - 3-Nitrotoluene

Totals : 9094.04476

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

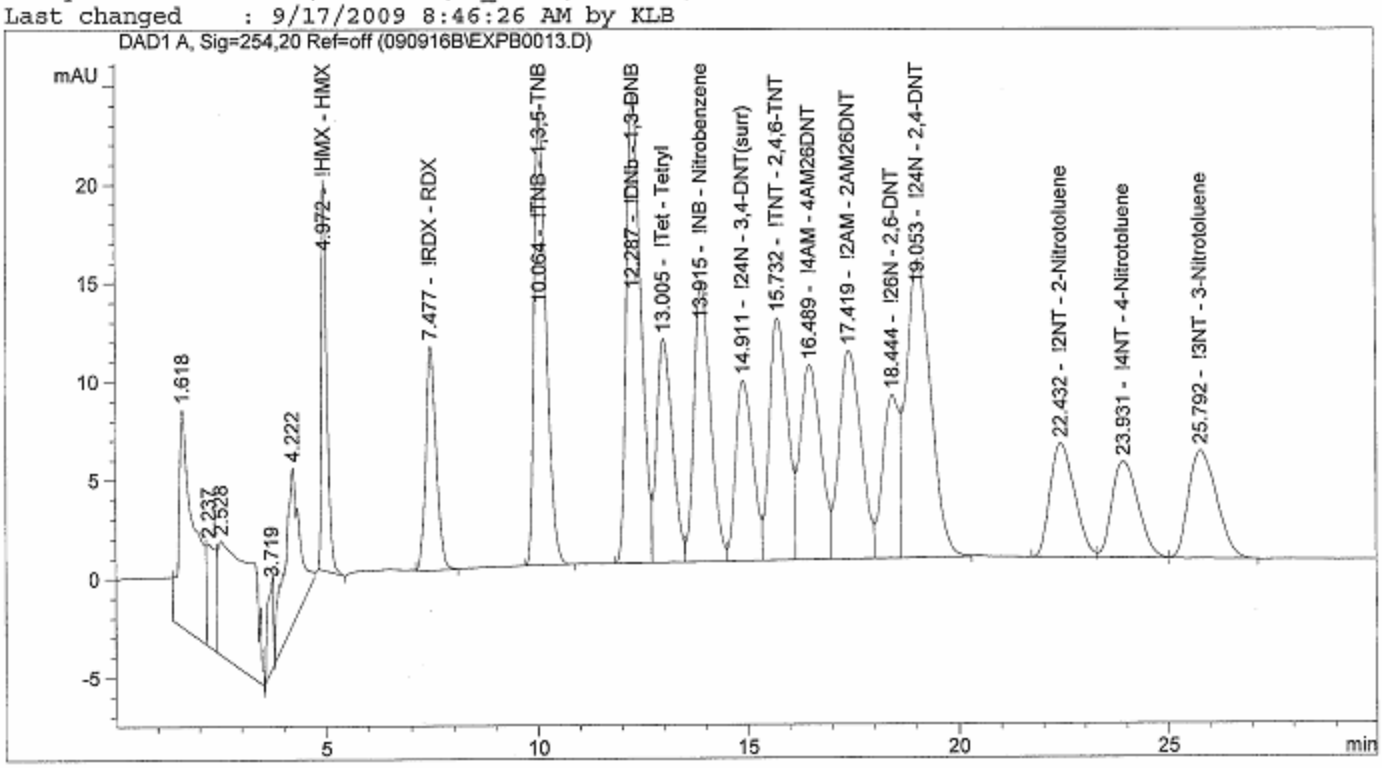
==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0013.D Sample Name: CCV 1000 PPB EXP

P5830EXP

==========

Injection Date : 9/16/2009 3:54:57 PM Seq. Line : 13
Sample Name : CCV 1000 PPB EXP Location : Vial 13
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Sequence File : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/17/2009 8:46:26 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 9/17/2009 8:41:46 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.972	BP	167.08406	6.97115	1164.76795		!HMX - HMX
7.477	BB	192.75725	5.82848	1123.48273		!RDX - RDX
10.064	BB	458.32904	2.64994	1214.54386		!TNB - 1,3,5-TNB
12.287	PV	573.03711	2.06201	1181.61010		!DNb - 1,3-DNB
13.005	VV	297.04504	3.84486	1142.09760		!Tet - Tetryl
13.915	VV	389.65594	3.11385	1213.32825		!NB - Nitrobenzene
14.911	VV	262.54462	4.63663	1217.32173		!24N - 3,4-DNT(surr)
15.732	VV	368.64258	3.14165	1158.14518		!TNT - 2,4,6-TNT
16.489	VV	335.47775	3.80023	1274.89236		!4AM - 4AM26DNT
17.419	VV	382.62506	3.22130	1232.54870		!2AM - 2AM26DNT
18.444	VV	225.78726	4.50387	1016.91726		!26N - 2,6-DNT
19.053	VB	605.38409	2.21876	1343.20347		!24N - 2,4-DNT

00121771

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0013.D Sample Name: CCV 1000 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
22.432	BV	236.62120	4.95095	1171.49986		!2NT - 2-Nitrotoluene
23.931	VV	215.68250	5.47670	1181.22734		!4NT - 4-Nitrotoluene
25.792	VP	257.33826	4.52593	1164.69458		!3NT - 3-Nitrotoluene

Totals : 1.78003e4

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

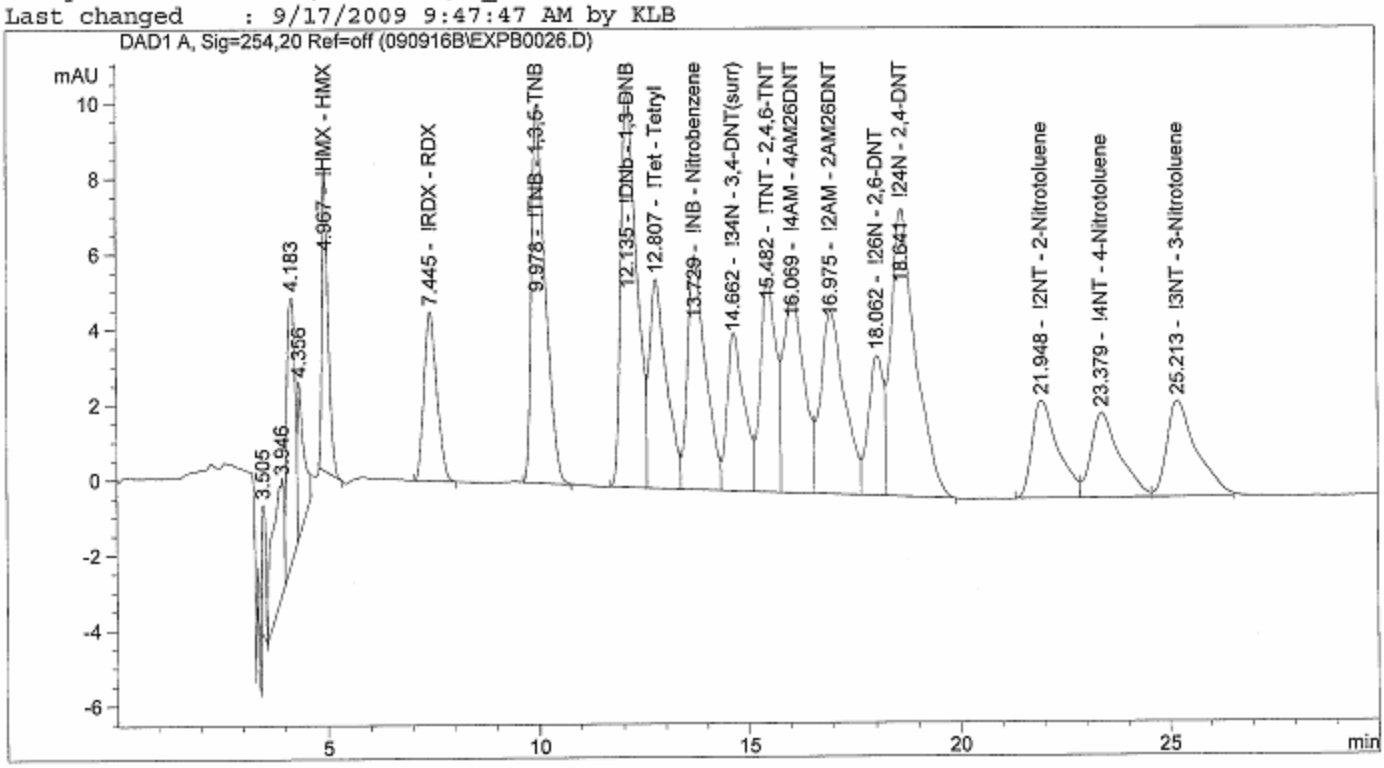
==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0026.D Sample Name: CCV 500 PPB EXP

P5830EXP

==========

Injection Date : 9/16/2009 11:13:46 PM Seq. Line : 26
Sample Name : CCV 500 PPB EXP Location : Vial 0
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Sequence File : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/17/2009 9:47:47 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 9/17/2009 9:47:19 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
4.967	BP	80.03540	6.63538	531.06512		!HMX - HMX
7.445	PP	94.81281	5.44575	516.32697		!RDX - RDX
9.978	BB	228.81450	2.58132	590.64354		!TNB - 1,3,5-TNB
12.135	BV	275.02502	2.00344	550.99485		!DNb - 1,3-DNB
12.807	VV	157.04935	3.74943	588.84594		!Tet - Tetryl
13.729	VV	186.64307	3.02715	564.99581		!NB - Nitrobenzene
14.662	VV	121.08938	4.49114	543.82994		!34N - 3,4-DNT(surr)
15.482	VV	148.21855	3.00843	445.90449		!TNT - 2,4,6-TNT
16.069	VV	182.94275	3.71836	680.24745		!4AM - 4AM26DNT
16.975	VV	190.61720	3.13980	598.49942		!2AM - 2AM26DNT
18.062	VV	92.59241	4.29743	397.90954		!26N - 2,6-DNT
18.641	VP	306.22107	2.16988	664.46445		!24N - 2,4-DNT

00121775

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0026.D Sample Name: CCV 500 PPB EXP

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
21.948	PV	112.28524	4.79177	538.04490		!2NT - 2-Nitrotoluene
23.379	VV	107.20588	5.30513	568.74060		!4NT - 4-Nitrotoluene
25.213	VB	126.99835	4.43931	563.78458		!3NT - 3-Nitrotoluene

Totals : 8344.29760

Results obtained with enhanced integrator!
1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

==========
*** End of Report ***

EXPLOSIVE SAMPLES

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0003.D Sample Name: 129609-02X2

```
==================================================================
Injection Date  : 9/16/2009 10:17:20 AM          Seq. Line :   3
Sample Name     : 129609-02X2                     Location : Vial 3
Acq. Operator   : KLB                                  Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
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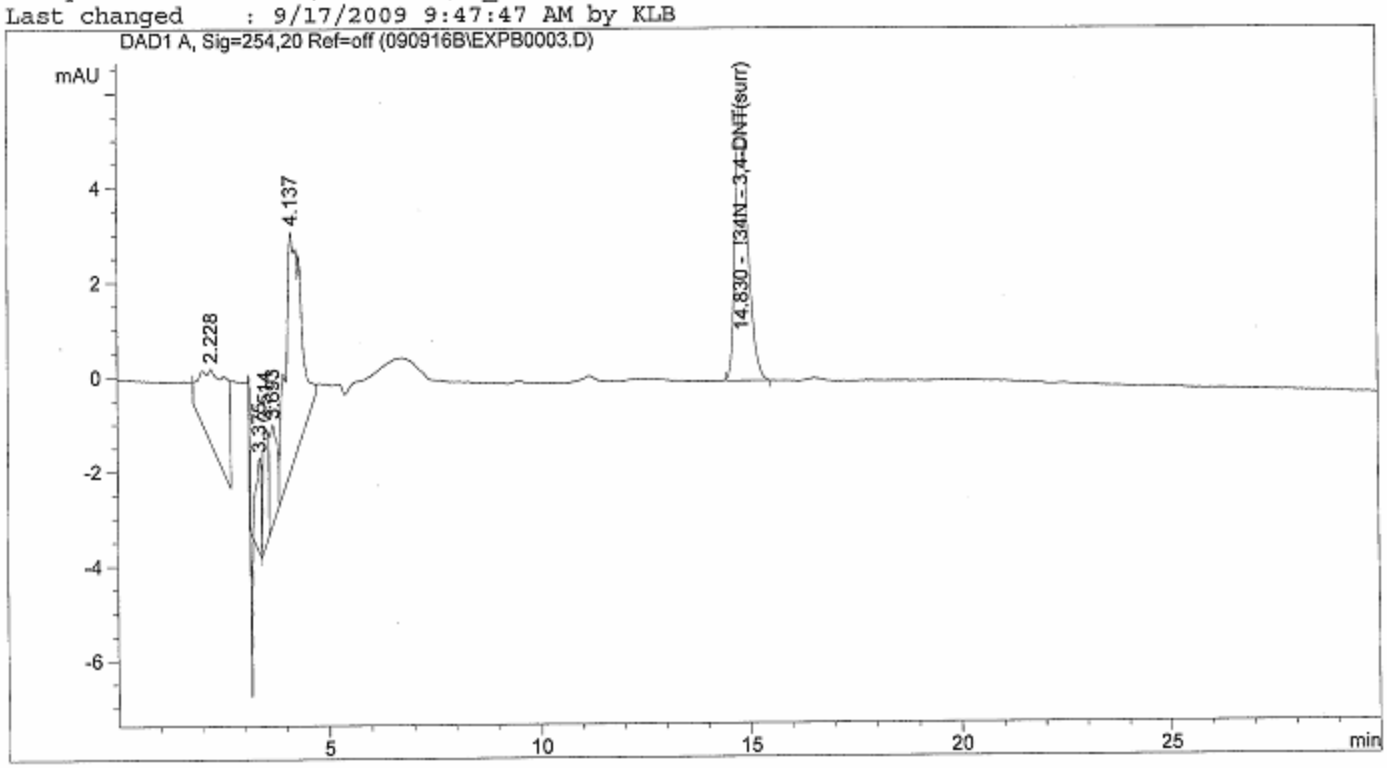



```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.830	BB	122.67159	4.49463	551.36313		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121781

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0003.D Sample Name: 129609-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 551.36313

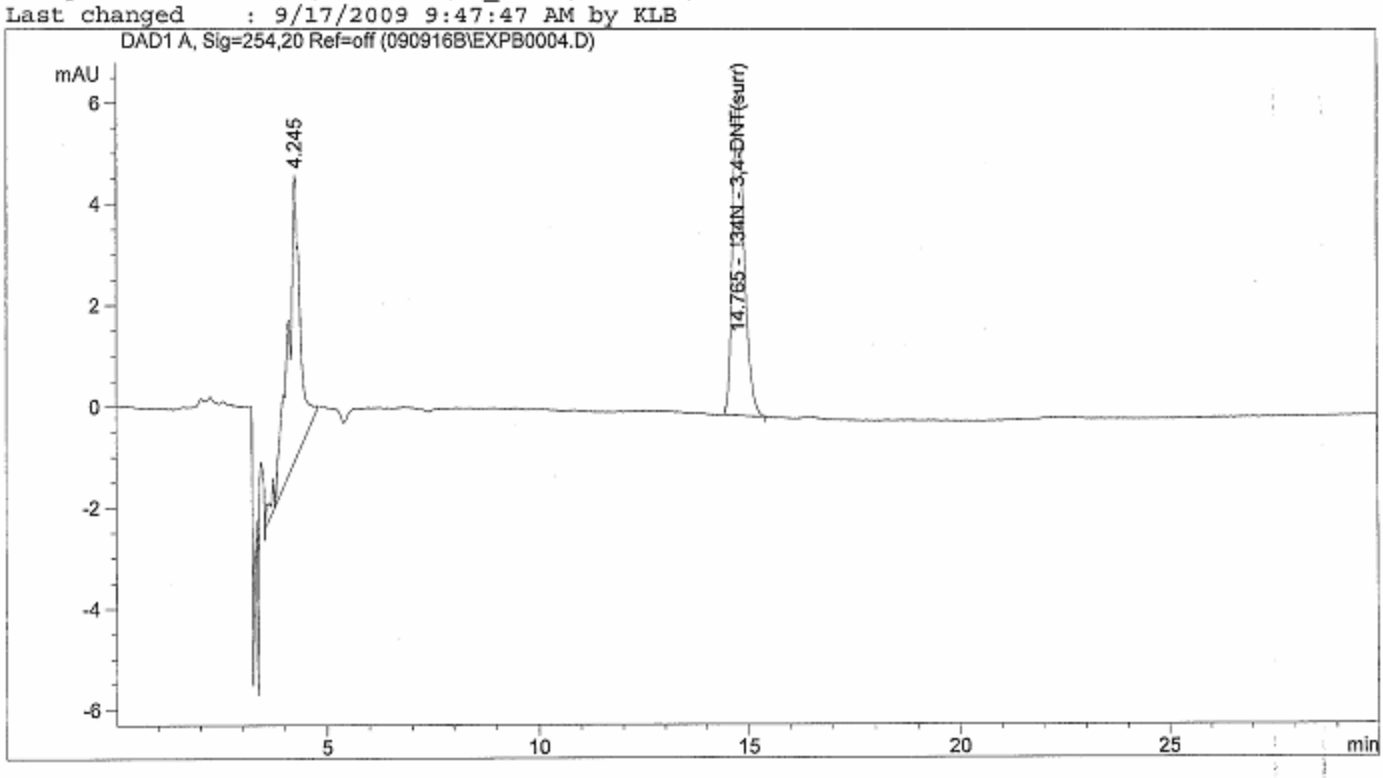
Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0004.D Sample Name: 129610-02X2

```
==================================================================
Injection Date  : 9/16/2009 10:51:06 AM        Seq. Line :   4
Sample Name     : 129610-02X2                   Location : Vial 4
Acq. Operator   : KLB                                Inj :   1
Acq. Instrument : 3M_1090                     Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
```




```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.765	BB	120.34599	4.48948	540.29053		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121785

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0004.D Sample Name: 129610-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 540.29053

Results obtained with enhanced integrator!
2 Warnings or Errors :

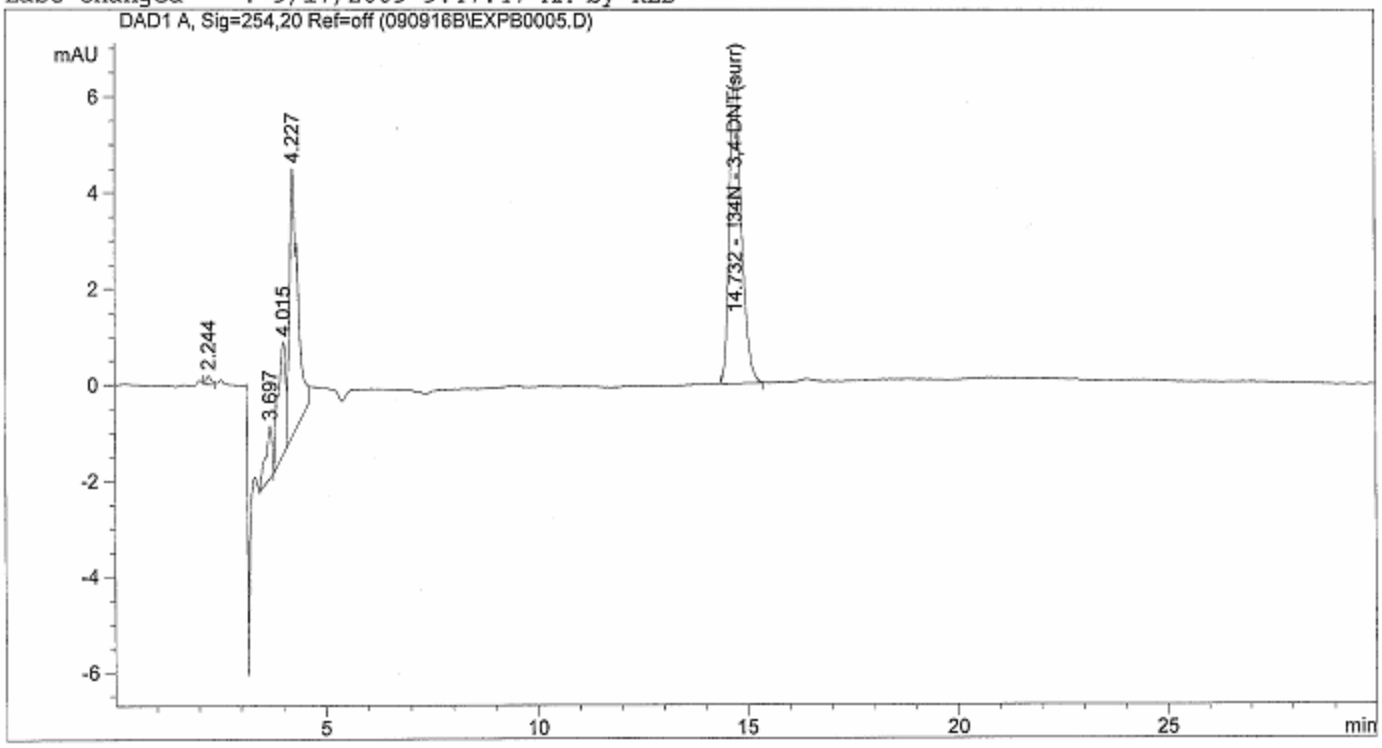
Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0005.D Sample Name: 129611-02X2

==========

Injection Date : 9/16/2009 11:24:52 AM Seq. Line : 5
Sample Name : 129611-02X2 Location : Vial 5
Acq. Operator : KLB Inj : 1
Acq. Instrument : 3M_1090 Inj Volume : 10 µl
Sequence File : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed : 9/17/2009 9:47:47 AM by KLB



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 9/17/2009 9:47:19 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.732	BP	129.02379	4.50775	581.60698		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0005.D Sample Name: 129611-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 581.60698

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0006.D Sample Name: 129612-02X2

```
==================================================================
Injection Date  : 9/16/2009 11:58:38 AM          Seq. Line :   6
Sample Name     : 129612-02X2                     Location : Vial 6
Acq. Operator   : KLB                                  Inj :   1
Acq. Instrument : 3M_1090                       Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
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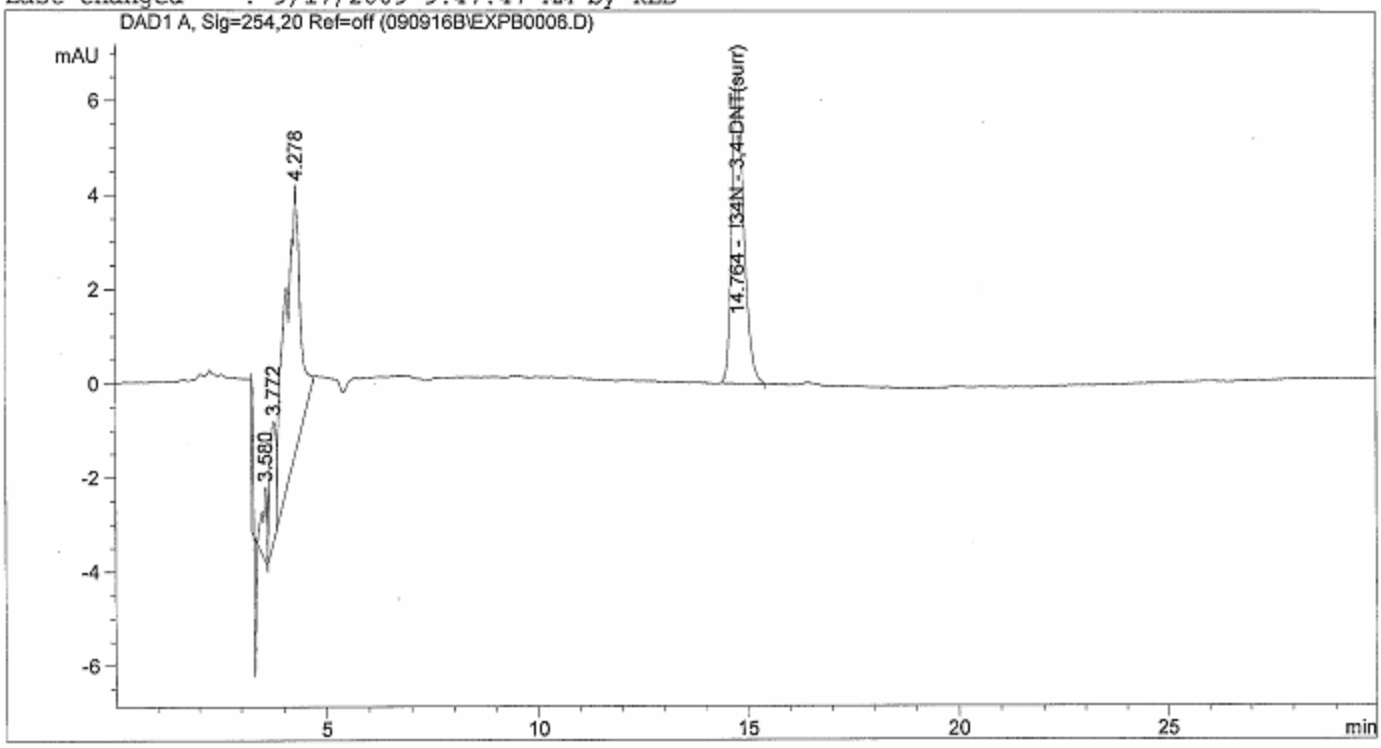


```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.947		-	-	-		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.764	BB	130.89384	4.51137	590.51063		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

00121793

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0006.D Sample Name: 129612-02X2

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
25.620		-	-	-		!3NT - 3-Nitrotoluene

Totals : 590.51063

Results obtained with enhanced integrator!
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

==========
*** End of Report ***

Data File C:\HPLCDATA\3M_1090\DATA\090916B\EXPB0007.D Sample Name: 129613-02X2

```
==================================================================
Injection Date  : 9/16/2009 12:32:24 PM        Seq. Line :   7
Sample Name     : 129613-02X2                   Location : Vial 7
Acq. Operator   : KLB                                Inj :   1
Acq. Instrument : 3M_1090                     Inj Volume : 10 µl
Sequence File   : C:\HPLCDATA\3M_1090\SEQUENCE\090916B.S
Acq. Method     : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/16/2009 9:08:57 AM by KLB
Analysis Method : C:\HPLCDATA\3M_1090\METHODS\8330OLD.M
Last changed    : 9/17/2009 9:47:47 AM by KLB
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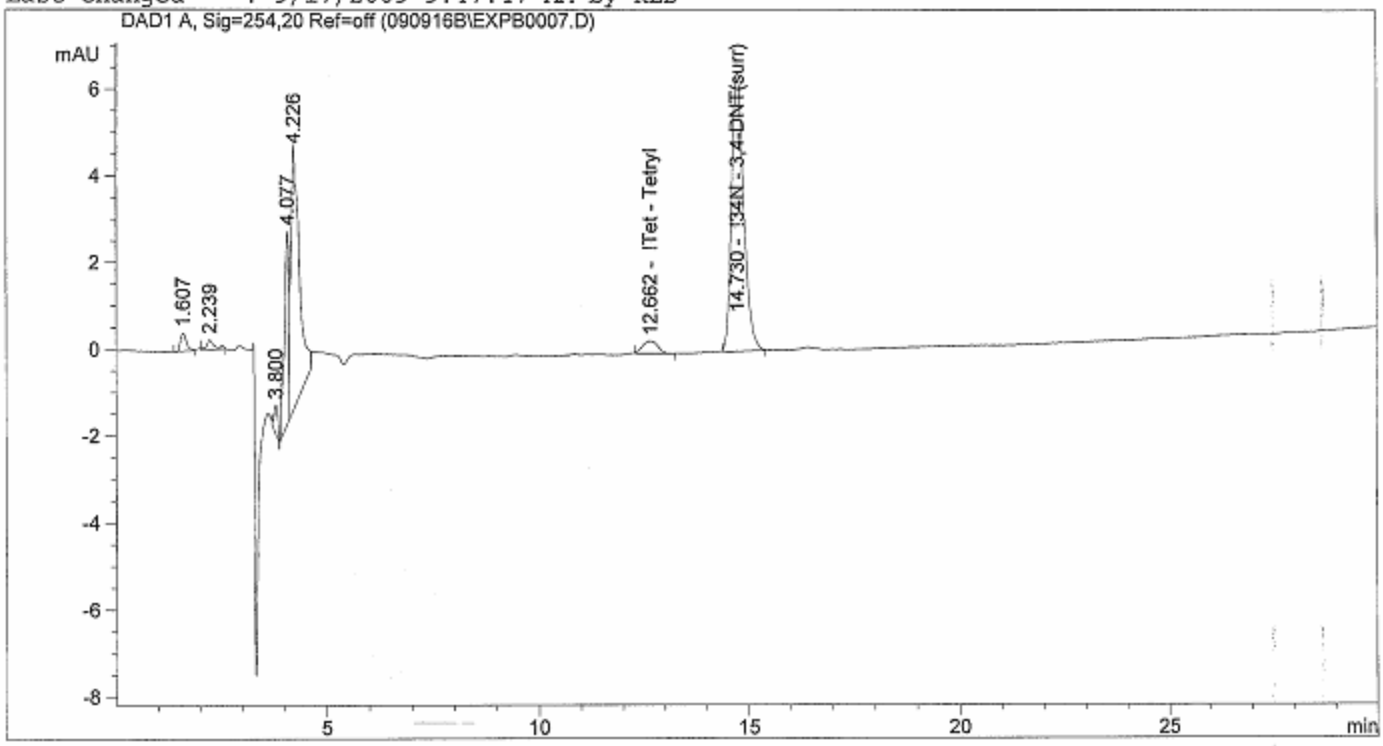


```
==================================================================
                      External Standard Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      9/17/2009 9:47:19 AM
Multiplier             :      1.0000
Dilution               :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=254,20 Ref=off
```

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount [ug/L]	Grp	Name
5.074		-	-	-		!HMX - HMX
7.450		-	-	-		!RDX - RDX
10.100		-	-	-		!TNB - 1,3,5-TNB
12.220		-	-	-		!DNb - 1,3-DNB
12.662	BP	7.41180	0.00000	0.00000		!Tet - Tetryl
14.000		-	-	-		!NB - Nitrobenzene
14.730	BB	129.31943	4.50833	583.01457		!34N - 3,4-DNT(surr)
15.650		-	-	-		!TNT - 2,4,6-TNT
16.370		-	-	-		!4AM - 4AM26DNT
17.290		-	-	-		!2AM - 2AM26DNT
18.060		-	-	-		!26N - 2,6-DNT
18.640		-	-	-		!24N - 2,4-DNT
22.280		-	-	-		!2NT - 2-Nitrotoluene
23.760		-	-	-		!4NT - 4-Nitrotoluene

APPENDIX 7

GROUNDWATER DATA SUMMARY TABLE BASED ON RESIDENTIAL & COMMERCIAL/INDUSTRIAL LAND USE

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Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

1,1,1,2-Tetrachloroethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	630-20-6	SW8260B	9/8/2009	0	0	1.50E-03	U	1.50E-03	2.00E-03	3.3E-02	1.1E-01				
EQB2	630-20-6	SW8260B	9/9/2009	0	0	1.50E-03	U	1.50E-03	2.00E-03	3.3E-02	1.1E-01				
MW1	630-20-6	SW8260B	9/9/2009	-20	-30	1.50E-03	U	1.50E-03	2.00E-03	3.3E-02	1.1E-01				
MW2	630-20-6	SW8260B	9/8/2009	-16	-28	1.50E-03	U	1.50E-03	2.00E-03	3.3E-02	1.1E-01				
MW3	630-20-6	SW8260B	9/9/2009	-20	-30	1.50E-03	U	1.50E-03	2.00E-03	3.3E-02	1.1E-01				
MW3F	630-20-6	SW8260B	9/9/2009	-20	-30	1.50E-03	U	1.50E-03	2.00E-03	3.3E-02	1.1E-01				
TB	630-20-6	SW8260B	9/8/2009	0	0	1.50E-03	U	1.50E-03	2.00E-03	3.3E-02	1.1E-01				
TB	630-20-6	SW-846 8260B	9/8/2009	0	0	2.20E-04	U	2.20E-04	1.00E-03	3.3E-02	1.1E-01				
TB1	630-20-6	SW8260B	11/9/2009	0	0	1.23E-03	U	1.23E-03	5.00E-03	3.3E-02	1.1E-01				

1,1,1-Trichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	71-55-6	SW8260B	9/8/2009	0	0	2.31E-03	U	2.31E-03	2.00E-03	2.0E-01	2.0E-01				
EQB2	71-55-6	SW8260B	9/9/2009	0	0	2.31E-03	U	2.31E-03	2.00E-03	2.0E-01	2.0E-01				
MW1	71-55-6	SW8260B	9/9/2009	-20	-30	2.31E-03	U	2.31E-03	2.00E-03	2.0E-01	2.0E-01				
MW2	71-55-6	SW8260B	9/8/2009	-16	-28	2.31E-03	U	2.31E-03	2.00E-03	2.0E-01	2.0E-01				
MW3	71-55-6	SW8260B	9/9/2009	-20	-30	2.31E-03	U	2.31E-03	2.00E-03	2.0E-01	2.0E-01				
MW3F	71-55-6	SW8260B	9/9/2009	-20	-30	2.31E-03	U	2.31E-03	2.00E-03	2.0E-01	2.0E-01				
TB	71-55-6	SW8260B	9/8/2009	0	0	2.31E-03	U	2.31E-03	2.00E-03	2.0E-01	2.0E-01				
TB	71-55-6	SW-846 8260B	9/8/2009	0	0	2.28E-04	U	2.28E-04	1.00E-03	2.0E-01	2.0E-01				
TB1	71-55-6	SW8260B	11/9/2009	0	0	2.31E-03	U	2.31E-03	5.00E-03	2.0E-01	2.0E-01				

1,1,2,2-Tetrachloroethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	79-34-5	SW8260B	9/8/2009	0	0	1.64E-03	U	1.64E-03	2.00E-03	4.3E-03	1.4E-02				
EQB2	79-34-5	SW8260B	9/9/2009	0	0	1.64E-03	U	1.64E-03	2.00E-03	4.3E-03	1.4E-02				
MW1	79-34-5	SW8260B	9/9/2009	-20	-30	1.64E-03	U	1.64E-03	2.00E-03	4.3E-03	1.4E-02				
MW2	79-34-5	SW8260B	9/8/2009	-16	-28	1.64E-03	U	1.64E-03	2.00E-03	4.3E-03	1.4E-02				

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

1,1,2,2-Tetrachloroethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3	79-34-5	SW8260B	9/9/2009	-20	-30	1.64E-03	U	1.64E-03	2.00E-03	4.3E-03	1.4E-02				
MW3F	79-34-5	SW8260B	9/9/2009	-20	-30	1.64E-03	U	1.64E-03	2.00E-03	4.3E-03	1.4E-02				
TB	79-34-5	SW8260B	9/8/2009	0	0	1.64E-03	U	1.64E-03	2.00E-03	4.3E-03	1.4E-02				
TB	79-34-5	SW-846 8260B	9/8/2009	0	0	2.96E-04	U	2.96E-04	1.00E-03	4.3E-03	1.4E-02				
TB1	79-34-5	SW8260B	11/9/2009	0	0	8.74E-04	U	8.74E-04	5.00E-03	4.3E-03	1.4E-02				

1,1,2-Trichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	79-00-5	SW8260B	9/8/2009	0	0	1.40E-03	U	1.40E-03	2.00E-03	5.0E-03	5.0E-03				
EQB2	79-00-5	SW8260B	9/9/2009	0	0	1.40E-03	U	1.40E-03	2.00E-03	5.0E-03	5.0E-03				
MW1	79-00-5	SW8260B	9/9/2009	-20	-30	1.40E-03	U	1.40E-03	2.00E-03	5.0E-03	5.0E-03				
MW2	79-00-5	SW8260B	9/8/2009	-16	-28	1.40E-03	U	1.40E-03	2.00E-03	5.0E-03	5.0E-03				
MW3	79-00-5	SW8260B	9/9/2009	-20	-30	1.40E-03	U	1.40E-03	2.00E-03	5.0E-03	5.0E-03				
MW3F	79-00-5	SW8260B	9/9/2009	-20	-30	1.40E-03	U	1.40E-03	2.00E-03	5.0E-03	5.0E-03				
TB	79-00-5	SW8260B	9/8/2009	0	0	1.40E-03	U	1.40E-03	2.00E-03	5.0E-03	5.0E-03				
TB	79-00-5	SW-846 8260B	9/8/2009	0	0	1.41E-04	U	1.41E-04	1.00E-03	5.0E-03	5.0E-03				
TB1	79-00-5	SW8260B	11/9/2009	0	0	1.56E-03	U	1.56E-03	5.00E-03	5.0E-03	5.0E-03				

1,1-Dichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	75-34-3	SW8260B	9/8/2009	0	0	1.97E-03	U	1.97E-03	2.00E-03	3.6E+00	1.0E+01				
EQB2	75-34-3	SW8260B	9/9/2009	0	0	1.97E-03	U	1.97E-03	2.00E-03	3.6E+00	1.0E+01				
MW1	75-34-3	SW8260B	9/9/2009	-20	-30	1.97E-03	U	1.97E-03	2.00E-03	3.6E+00	1.0E+01				
MW2	75-34-3	SW8260B	9/8/2009	-16	-28	1.97E-03	U	1.97E-03	2.00E-03	3.6E+00	1.0E+01				
MW3	75-34-3	SW8260B	9/9/2009	-20	-30	1.97E-03	U	1.97E-03	2.00E-03	3.6E+00	1.0E+01				
MW3F	75-34-3	SW8260B	9/9/2009	-20	-30	1.97E-03	U	1.97E-03	2.00E-03	3.6E+00	1.0E+01				
TB	75-34-3	SW-846 8260B	9/8/2009	0	0	1.71E-04	U	1.71E-04	1.00E-03	3.6E+00	1.0E+01				
TB	75-34-3	SW8260B	9/8/2009	0	0	1.97E-03	U	1.97E-03	2.00E-03	3.6E+00	1.0E+01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

1,1-Dichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB1	74-34-3	SW8260B	11/9/2009	0	0	1.04E-03	U	1.04E-03	5.00E-03						

1,1-Dichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	75-35-4	SW8260B	9/8/2009	0	0	1.10E-03	U	1.10E-03	2.00E-03	7.0E-03	7.0E-03				
EQB2	75-35-4	SW8260B	9/9/2009	0	0	1.10E-03	U	1.10E-03	2.00E-03	7.0E-03	7.0E-03				
MW1	75-35-4	SW8260B	9/9/2009	-20	-30	1.10E-03	U	1.10E-03	2.00E-03	7.0E-03	7.0E-03				
MW2	75-35-4	SW8260B	9/8/2009	-16	-28	1.10E-03	U	1.10E-03	2.00E-03	7.0E-03	7.0E-03				
MW3	75-35-4	SW8260B	9/9/2009	-20	-30	1.10E-03	U	1.10E-03	2.00E-03	7.0E-03	7.0E-03				
MW3F	75-35-4	SW8260B	9/9/2009	-20	-30	1.10E-03	U	1.10E-03	2.00E-03	7.0E-03	7.0E-03				
TB	75-35-4	SW8260B	9/8/2009	0	0	1.10E-03	U	1.10E-03	2.00E-03	7.0E-03	7.0E-03				
TB1	75-35-4	SW8260B	11/9/2009	0	0	1.10E-03	U	1.10E-03	5.00E-03	7.0E-03	7.0E-03				

1,1-Dichloroethylene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB	75-35-4	SW-846 8260B	9/8/2009	0	0	2.23E-04	U	2.23E-04	1.00E-03	7.0E-03	7.0E-03				

1,1-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	563-58-6	SW8260B	9/8/2009	0	0	1.46E-03	U	1.46E-03	2.00E-03	8.5E-04	2.9E-03				
EQB1	563-58-6	SW8260B	9/8/2009	0	0	4.50E-04	U	4.50E-04	2.00E-03	8.5E-04	2.9E-03				
EQB2	563-58-6	SW8260B	9/9/2009	0	0	4.50E-04	U	4.50E-04	2.00E-03	8.5E-04	2.9E-03				
EQB2	563-58-6	SW8260B	9/9/2009	0	0	1.46E-03	U	1.46E-03	2.00E-03	8.5E-04	2.9E-03				
MW1	563-58-6	SW8260B	9/9/2009	-20	-30	1.46E-03	U	1.46E-03	2.00E-03	8.5E-04	2.9E-03				
MW1	563-58-6	SW8260B	9/9/2009	-20	-30	4.50E-04	U	4.50E-04	2.00E-03	8.5E-04	2.9E-03				
MW2	563-58-6	SW8260B	9/8/2009	-16	-28	4.50E-04	U	4.50E-04	2.00E-03	8.5E-04	2.9E-03				
MW2	563-58-6	SW8260B	9/8/2009	-16	-28	1.46E-03	U	1.46E-03	2.00E-03	8.5E-04	2.9E-03				
MW3	563-58-6	SW8260B	9/9/2009	-20	-30	1.46E-03	U	1.46E-03	2.00E-03	8.5E-04	2.9E-03				
MW3	563-58-6	SW8260B	9/9/2009	-20	-30	4.50E-04	U	4.50E-04	2.00E-03	8.5E-04	2.9E-03				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

1,1-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3F	563-58-6	SW8260B	9/9/2009	-20	-30	4.50E-04	U	4.50E-04	2.00E-03	8.5E-04	2.9E-03				
MW3F	563-58-6	SW8260B	9/9/2009	-20	-30	1.46E-03	U	1.46E-03	2.00E-03	8.5E-04	2.9E-03				
TB	563-58-6	SW8260B	9/8/2009	0	0	1.46E-03	U	1.46E-03	2.00E-03	8.5E-04	2.9E-03				
TB	563-58-6	SW8260B	9/8/2009	0	0	4.50E-04	U	4.50E-04	2.00E-03	8.5E-04	2.9E-03				
TB	563-58-6	SW-846 8260B	9/8/2009	0	0	1.95E-04	U	1.95E-04	1.00E-03	8.5E-04	2.9E-03				
TB1	563-58-6	SW8260B	11/9/2009	0	0	4.50E-04	U	4.50E-04	5.00E-03	8.5E-04	2.9E-03				

1,2,3-Trichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	87-61-6	SW8260B	9/8/2009	0	0	4.95E-03	U	4.95E-03	2.00E-03	1.1E-01	3.1E-01				
EQB2	87-61-6	SW8260B	9/9/2009	0	0	4.95E-03	U	4.95E-03	2.00E-03	1.1E-01	3.1E-01				
MW1	87-61-6	SW8260B	9/9/2009	-20	-30	4.95E-03	U	4.95E-03	2.00E-03	1.1E-01	3.1E-01				
MW2	87-61-6	SW8260B	9/8/2009	-16	-28	4.95E-03	U	4.95E-03	2.00E-03	1.1E-01	3.1E-01				
MW3	87-61-6	SW8260B	9/9/2009	-20	-30	4.95E-03	U	4.95E-03	2.00E-03	1.1E-01	3.1E-01				
MW3F	87-61-6	SW8260B	9/9/2009	-20	-30	4.95E-03	U	4.95E-03	2.00E-03	1.1E-01	3.1E-01				
TB	87-61-6	SW8260B	9/8/2009	0	0	4.95E-03	U	4.95E-03	2.00E-03	1.1E-01	3.1E-01				
TB	87-61-6	SW-846 8260B	9/8/2009	0	0	2.45E-03	U	2.45E-03	3.00E-03	1.1E-01	3.1E-01				
TB1	87-61-6	SW8260B	11/9/2009	0	0	1.09E-03	U	1.09E-03	5.00E-03	1.1E-01	3.1E-01				

1,2,3-Trichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	96-18-4	SW8260B	9/8/2009	0	0	1.35E-03	U	1.35E-03	2.00E-03	1.2E-05	4.1E-05				
EQB1	96-18-4	SW8260B	9/8/2009	0	0	5.50E-05	U	5.50E-05	2.00E-03	1.2E-05	4.1E-05				
EQB2	96-18-4	SW8260B	9/9/2009	0	0	5.50E-05	U	5.50E-05	2.00E-03	1.2E-05	4.1E-05				
EQB2	96-18-4	SW8260B	9/9/2009	0	0	1.35E-03	U	1.35E-03	2.00E-03	1.2E-05	4.1E-05				
MW1	96-18-4	SW8260B	9/9/2009	-20	-30	1.35E-03	U	1.35E-03	2.00E-03	1.2E-05	4.1E-05				
MW1	96-18-4	SW8260B	9/9/2009	-20	-30	5.50E-05	U	5.50E-05	2.00E-03	1.2E-05	4.1E-05				
MW2	96-18-4	SW8260B	9/8/2009	-16	-28	5.50E-05	U	5.50E-05	2.00E-03	1.2E-05	4.1E-05				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

1,2,3-Trichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW2	96-18-4	SW8260B	9/8/2009	-16	-28	1.35E-03	U	1.35E-03	2.00E-03	1.2E-05	4.1E-05				
MW3	96-18-4	SW8260B	9/9/2009	-20	-30	5.50E-05	U	5.50E-05	2.00E-03	1.2E-05	4.1E-05				
MW3	96-18-4	SW8260B	9/9/2009	-20	-30	1.35E-03	U	1.35E-03	2.00E-03	1.2E-05	4.1E-05				
MW3F	96-18-4	SW8260B	9/9/2009	-20	-30	1.35E-03	U	1.35E-03	2.00E-03	1.2E-05	4.1E-05				
MW3F	96-18-4	SW8260B	9/9/2009	-20	-30	5.50E-05	U	5.50E-05	2.00E-03	1.2E-05	4.1E-05				
TB	96-18-4	SW8260B	9/8/2009	0	0	1.35E-03	U	1.35E-03	2.00E-03	1.2E-05	4.1E-05				
TB	96-18-4	SW8260B	9/8/2009	0	0	5.50E-05	U	5.50E-05	2.00E-03	1.2E-05	4.1E-05				
TB	96-18-4	SW-846 8260B	9/8/2009	0	0	1.53E-03	U	1.53E-03	2.00E-03	1.2E-05	4.1E-05				
TB1	96-18-4	SW8260B	11/9/2009	0	0	5.50E-05	U	5.50E-05	5.00E-03	1.2E-05	4.1E-05				

1,2,4,5-Tetrachlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	95-94-3	SW8270C	9/8/2009	0	0	6.24E-04	U	6.24E-04	2.00E-03	1.1E-02	3.1E-02				
EQB2	95-94-3	SW8270C	9/9/2009	0	0	6.24E-04	U	6.24E-04	2.00E-03	1.1E-02	3.1E-02				
MW1	95-94-3	SW8270C	9/9/2009	-20	-30	6.24E-04	U	6.24E-04	2.00E-03	1.1E-02	3.1E-02				
MW2	95-94-3	SW8270C	9/8/2009	-16	-28	6.24E-04	U	6.24E-04	2.00E-03	1.1E-02	3.1E-02				
MW3	95-94-3	SW8270C	9/9/2009	-20	-30	6.24E-04	U	6.24E-04	2.00E-03	1.1E-02	3.1E-02				
MW3F	95-94-3	SW8270C	9/9/2009	-20	-30	6.24E-04	U	6.24E-04	2.00E-03	1.1E-02	3.1E-02				

1,2,4-Trichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	120-82-1	SW8270C	9/8/2009	0	0	5.62E-04	U	5.62E-04	2.00E-03	7.0E-02	7.0E-02				
EQB1	120-82-1	SW8260B	9/8/2009	0	0	4.74E-03	U	4.74E-03	2.00E-03	7.0E-02	7.0E-02				
EQB2	120-82-1	SW8270C	9/9/2009	0	0	5.62E-04	U	5.62E-04	2.00E-03	7.0E-02	7.0E-02				
EQB2	120-82-1	SW8260B	9/9/2009	0	0	4.74E-03	U	4.74E-03	2.00E-03	7.0E-02	7.0E-02				
MW1	120-82-1	SW8260B	9/9/2009	-20	-30	4.74E-03	U	4.74E-03	2.00E-03	7.0E-02	7.0E-02				
MW1	120-82-1	SW8270C	9/9/2009	-20	-30	5.62E-04	U	5.62E-04	2.00E-03	7.0E-02	7.0E-02				
MW2	120-82-1	SW8260B	9/8/2009	-16	-28	4.74E-03	U	4.74E-03	2.00E-03	7.0E-02	7.0E-02				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

1,2,4-Trichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW2	120-82-1	SW8270C	9/8/2009	-16	-28	5.62E-04	U	5.62E-04	2.00E-03	7.0E-02	7.0E-02				
MW3	120-82-1	SW8260B	9/9/2009	-20	-30	4.74E-03	U	4.74E-03	2.00E-03	7.0E-02	7.0E-02				
MW3	120-82-1	SW8270C	9/9/2009	-20	-30	5.62E-04	U	5.62E-04	2.00E-03	7.0E-02	7.0E-02				
MW3F	120-82-1	SW8260B	9/9/2009	-20	-30	4.74E-03	U	4.74E-03	2.00E-03	7.0E-02	7.0E-02				
MW3F	120-82-1	SW8270C	9/9/2009	-20	-30	5.62E-04	U	5.62E-04	2.00E-03	7.0E-02	7.0E-02				
TB	120-82-1	SW-846 8260B	9/8/2009	0	0	1.16E-03	U	1.16E-03	2.00E-03	7.0E-02	7.0E-02				
TB	120-82-1	SW8260B	9/8/2009	0	0	4.74E-03	U	4.74E-03	2.00E-03	7.0E-02	7.0E-02				
TB1	120-82-1	SW8260B	11/9/2009	0	0	7.64E-04	U	7.64E-04	5.00E-03	7.0E-02	7.0E-02				

1,2,4-Trimethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	95-63-6	SW8260B	9/8/2009	0	0	1.89E-03	U	1.89E-03	2.00E-03	1.8E+00	5.1E+00				
EQB2	95-63-6	SW8260B	9/9/2009	0	0	1.89E-03	U	1.89E-03	2.00E-03	1.8E+00	5.1E+00				
MW1	95-63-6	SW8260B	9/9/2009	-20	-30	1.89E-03	U	1.89E-03	2.00E-03	1.8E+00	5.1E+00				
MW2	95-63-6	SW8260B	9/8/2009	-16	-28	1.89E-03	U	1.89E-03	2.00E-03	1.8E+00	5.1E+00				
MW3	95-63-6	SW8260B	9/9/2009	-20	-30	1.89E-03	U	1.89E-03	2.00E-03	1.8E+00	5.1E+00				
MW3F	95-63-6	SW8260B	9/9/2009	-20	-30	1.89E-03	U	1.89E-03	2.00E-03	1.8E+00	5.1E+00				
TB	95-63-6	SW8260B	9/8/2009	0	0	1.89E-03	U	1.89E-03	2.00E-03	1.8E+00	5.1E+00				
TB	95-63-6	SW-846 8260B	9/8/2009	0	0	1.95E-04	U	1.95E-04	1.00E-03	1.8E+00	5.1E+00				
TB1	95-63-6	SW8260B	11/9/2009	0	0	1.03E-03	U	1.03E-03	5.00E-03	1.8E+00	5.1E+00				

1,2-Dibromo-3-chloropropane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	96-12-8	SW8260B	9/8/2009	0	0	6.50E-05	U	6.50E-05	2.00E-03	2.0E-04	2.0E-04				
EQB1	96-12-8	SW8260B	9/8/2009	0	0	1.37E-03	U	1.37E-03	2.00E-03	2.0E-04	2.0E-04				
EQB2	96-12-8	SW8260B	9/9/2009	0	0	1.37E-03	U	1.37E-03	2.00E-03	2.0E-04	2.0E-04				
EQB2	96-12-8	SW8260B	9/9/2009	0	0	6.50E-05	U	6.50E-05	2.00E-03	2.0E-04	2.0E-04				
MW1	96-12-8	SW8260B	9/9/2009	-20	-30	6.50E-05	U	6.50E-05	2.00E-03	2.0E-04	2.0E-04				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

1,2-Dibromo-3-chloropropane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW1	96-12-8	SW8260B	9/9/2009	-20	-30	1.37E-03	U	1.37E-03	2.00E-03	2.0E-04	2.0E-04				
MW2	96-12-8	SW8260B	9/8/2009	-16	-28	6.50E-05	U	6.50E-05	2.00E-03	2.0E-04	2.0E-04				
MW2	96-12-8	SW8260B	9/8/2009	-16	-28	1.37E-03	U	1.37E-03	2.00E-03	2.0E-04	2.0E-04				
MW3	96-12-8	SW8260B	9/9/2009	-20	-30	1.37E-03	U	1.37E-03	2.00E-03	2.0E-04	2.0E-04				
MW3	96-12-8	SW8260B	9/9/2009	-20	-30	6.50E-05	U	6.50E-05	2.00E-03	2.0E-04	2.0E-04				
MW3F	96-12-8	SW8260B	9/9/2009	-20	-30	6.50E-05	U	6.50E-05	2.00E-03	2.0E-04	2.0E-04				
MW3F	96-12-8	SW8260B	9/9/2009	-20	-30	1.37E-03	U	1.37E-03	2.00E-03	2.0E-04	2.0E-04				
TB	96-12-8	SW-846 8260B	9/8/2009	0	0	2.35E-03	U	2.35E-03	2.00E-03	2.0E-04	2.0E-04				
TB	96-12-8	SW8260B	9/8/2009	0	0	6.50E-05	U	6.50E-05	2.00E-03	2.0E-04	2.0E-04				
TB	96-12-8	SW8260B	9/8/2009	0	0	1.37E-03	U	1.37E-03	2.00E-03	2.0E-04	2.0E-04				
TB1	96-12-8	SW8260B	11/9/2009	0	0	6.50E-06	U	6.50E-06	5.00E-03	2.0E-04	2.0E-04				

1,2-Dibromoethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	106-93-4	SW8260B	9/8/2009	0	0	4.20E-05	U	4.20E-05	2.00E-03	5.0E-05	5.0E-05				
EQB1	106-93-4	SW8260B	9/8/2009	0	0	1.28E-03	U	1.28E-03	2.00E-03	5.0E-05	5.0E-05				
EQB2	106-93-4	SW8260B	9/9/2009	0	0	1.28E-03	U	1.28E-03	2.00E-03	5.0E-05	5.0E-05				
EQB2	106-93-4	SW8260B	9/9/2009	0	0	4.20E-05	U	4.20E-05	2.00E-03	5.0E-05	5.0E-05				
MW1	106-93-4	SW8260B	9/9/2009	-20	-30	1.28E-03	U	1.28E-03	2.00E-03	5.0E-05	5.0E-05				
MW1	106-93-4	SW8260B	9/9/2009	-20	-30	4.20E-05	U	4.20E-05	2.00E-03	5.0E-05	5.0E-05				
MW2	106-93-4	SW8260B	9/8/2009	-16	-28	1.28E-03	U	1.28E-03	2.00E-03	5.0E-05	5.0E-05				
MW2	106-93-4	SW8260B	9/8/2009	-16	-28	4.20E-05	U	4.20E-05	2.00E-03	5.0E-05	5.0E-05				
MW3	106-93-4	SW8260B	9/9/2009	-20	-30	1.28E-03	U	1.28E-03	2.00E-03	5.0E-05	5.0E-05				
MW3	106-93-4	SW8260B	9/9/2009	-20	-30	4.20E-05	U	4.20E-05	2.00E-03	5.0E-05	5.0E-05				
MW3F	106-93-4	SW8260B	9/9/2009	-20	-30	1.28E-03	U	1.28E-03	2.00E-03	5.0E-05	5.0E-05				
MW3F	106-93-4	SW8260B	9/9/2009	-20	-30	4.20E-05	U	4.20E-05	2.00E-03	5.0E-05	5.0E-05				
TB	106-93-4	SW8260B	9/8/2009	0	0	1.28E-03	U	1.28E-03	2.00E-03	5.0E-05	5.0E-05				
TB	106-93-4	SW8260B	9/8/2009	0	0	4.20E-05	U	4.20E-05	2.00E-03	5.0E-05	5.0E-05				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

1,2-Dibromoethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB	106-93-4	SW-846 8260B	9/8/2009	0	0	2.96E-04	U	2.96E-04	1.00E-03	5.0E-05	5.0E-05				
TB1	106-93-4	SW8260B	11/9/2009	0	0	4.20E-05	U	4.20E-05	5.00E-03	5.0E-05	5.0E-05				

1,2-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	95-50-1	SW8270C	9/8/2009	0	0	5.56E-04	U	5.56E-04	2.00E-03	6.0E-01	6.0E-01				
EQB1	95-50-1	SW8260B	9/8/2009	0	0	7.98E-04	U	7.98E-04	2.00E-03	6.0E-01	6.0E-01				
EQB2	95-50-1	SW8270C	9/9/2009	0	0	5.56E-04	U	5.56E-04	2.00E-03	6.0E-01	6.0E-01				
EQB2	95-50-1	SW8260B	9/9/2009	0	0	7.98E-04	U	7.98E-04	2.00E-03	6.0E-01	6.0E-01				
MW1	95-50-1	SW8260B	9/9/2009	-20	-30	7.98E-04	U	7.98E-04	2.00E-03	6.0E-01	6.0E-01				
MW1	95-50-1	SW8270C	9/9/2009	-20	-30	5.56E-04	U	5.56E-04	2.00E-03	6.0E-01	6.0E-01				
MW2	95-50-1	SW8260B	9/8/2009	-16	-28	7.98E-04	U	7.98E-04	2.00E-03	6.0E-01	6.0E-01				
MW2	95-50-1	SW8270C	9/8/2009	-16	-28	5.56E-04	U	5.56E-04	2.00E-03	6.0E-01	6.0E-01				
MW3	95-50-1	SW8270C	9/9/2009	-20	-30	5.56E-04	U	5.56E-04	2.00E-03	6.0E-01	6.0E-01				
MW3	95-50-1	SW8260B	9/9/2009	-20	-30	7.98E-04	U	7.98E-04	2.00E-03	6.0E-01	6.0E-01				
MW3F	95-50-1	SW8260B	9/9/2009	-20	-30	7.98E-04	U	7.98E-04	2.00E-03	6.0E-01	6.0E-01				
MW3F	95-50-1	SW8270C	9/9/2009	-20	-30	5.56E-04	U	5.56E-04	2.00E-03	6.0E-01	6.0E-01				
TB	95-50-1	SW-846 8260B	9/8/2009	0	0	1.40E-04	U	1.40E-04	1.00E-03	6.0E-01	6.0E-01				
TB	95-50-1	SW8260B	9/8/2009	0	0	7.98E-04	U	7.98E-04	2.00E-03	6.0E-01	6.0E-01				
TB1	95-50-1	SW8260B	11/9/2009	0	0	7.98E-04	U	7.98E-04	5.00E-03	6.0E-01	6.0E-01				

1,2-Dichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	107-06-2	SW8260B	9/8/2009	0	0	1.73E-03	U	1.73E-03	2.00E-03	5.0E-03	5.0E-03				
EQB2	107-06-2	SW8260B	9/9/2009	0	0	1.73E-03	U	1.73E-03	2.00E-03	5.0E-03	5.0E-03				
MW1	107-06-2	SW8260B	9/9/2009	-20	-30	1.73E-03	U	1.73E-03	2.00E-03	5.0E-03	5.0E-03				
MW2	107-06-2	SW8260B	9/8/2009	-16	-28	1.73E-03	U	1.73E-03	2.00E-03	5.0E-03	5.0E-03				
MW3	107-06-2	SW8260B	9/9/2009	-20	-30	1.73E-03	U	1.73E-03	2.00E-03	5.0E-03	5.0E-03				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

1,2-Dichloroethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3F	107-06-2	SW8260B	9/9/2009	-20	-30	1.73E-03	U	1.73E-03	2.00E-03	5.0E-03	5.0E-03				
TB	107-06-2	SW-846 8260B	9/8/2009	0	0	1.64E-04	U	1.64E-04	1.00E-03	5.0E-03	5.0E-03				
TB	107-06-2	SW8260B	9/8/2009	0	0	1.73E-03	U	1.73E-03	2.00E-03	5.0E-03	5.0E-03				
TB1	107-06-2	SW8260B	11/9/2009	0	0	9.83E-04	U	9.83E-04	5.00E-03	5.0E-03	5.0E-03				

1,2-Dichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	78-87-5	SW8260B	9/8/2009	0	0	1.26E-03	U	1.26E-03	2.00E-03	5.0E-03	5.0E-03				
EQB2	78-87-5	SW8260B	9/9/2009	0	0	1.26E-03	U	1.26E-03	2.00E-03	5.0E-03	5.0E-03				
MW1	78-87-5	SW8260B	9/9/2009	-20	-30	1.26E-03	U	1.26E-03	2.00E-03	5.0E-03	5.0E-03				
MW2	78-87-5	SW8260B	9/8/2009	-16	-28	1.26E-03	U	1.26E-03	2.00E-03	5.0E-03	5.0E-03				
MW3	78-87-5	SW8260B	9/9/2009	-20	-30	1.26E-03	U	1.26E-03	2.00E-03	5.0E-03	5.0E-03				
MW3F	78-87-5	SW8260B	9/9/2009	-20	-30	1.26E-03	U	1.26E-03	2.00E-03	5.0E-03	5.0E-03				
TB	78-87-5	SW8260B	9/8/2009	0	0	1.26E-03	U	1.26E-03	2.00E-03	5.0E-03	5.0E-03				
TB	78-87-5	SW-846 8260B	9/8/2009	0	0	2.62E-04	U	2.62E-04	1.00E-03	5.0E-03	5.0E-03				
TB1	78-87-5	SW8260B	11/9/2009	0	0	6.26E-04	U	6.26E-04	5.00E-03	5.0E-03	5.0E-03				

1,2-Diphenylhydrazine

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	122-66-7	8270C	9/8/2009	0	0	8.60E-05	U	8.60E-05	2.00E-03	1.1E-04	3.6E-04				
EQB1	122-66-7	SW8270C	9/8/2009	0	0	1.02E-03	U	1.02E-03	2.00E-03	1.1E-04	3.6E-04				
EQB2	122-66-7	8270C	9/9/2009	0	0	8.60E-05	U	8.60E-05	2.00E-03	1.1E-04	3.6E-04				
EQB2	122-66-7	SW8270C	9/9/2009	0	0	1.02E-03	U	1.02E-03	2.00E-03	1.1E-04	3.6E-04				
MW1	122-66-7	8270C	9/9/2009	-20	-30	8.60E-05	U	8.60E-05	2.00E-03	1.1E-04	3.6E-04				
MW1	122-66-7	SW8270C	9/9/2009	-20	-30	1.02E-03	U	1.02E-03	2.00E-03	1.1E-04	3.6E-04				
MW2	122-66-7	8270C	9/8/2009	-16	-28	8.60E-05	U	8.60E-05	2.00E-03	1.1E-04	3.6E-04				
MW2	122-66-7	SW8270C	9/8/2009	-16	-28	1.02E-03	U	1.02E-03	2.00E-03	1.1E-04	3.6E-04				
MW3	122-66-7	8270C	9/9/2009	-20	-30	8.60E-05	U	8.60E-05	2.00E-03	1.1E-04	3.6E-04				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

1,2-Diphenylhydrazine

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3	122-66-7	SW8270C	9/9/2009	-20	-30	1.02E-03	U	1.02E-03	2.00E-03	1.1E-04	3.6E-04				
MW3F	122-66-7	8270C	9/9/2009	-20	-30	8.60E-05	U	8.60E-05	2.00E-03	1.1E-04	3.6E-04				
MW3F	122-66-7	SW8270C	9/9/2009	-20	-30	1.02E-03	U	1.02E-03	2.00E-03	1.1E-04	3.6E-04				

1,3,5 Trinitrobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	99-35-4	SW-846 8330	9/8/2009	0	0	4.78E-05	U	4.78E-05	5.00E-02	1.1E+00	3.1E+00				
EQB2	99-35-4	SW-846 8330	9/9/2009	0	0	4.34E-05	U	4.34E-05	5.00E-02	1.1E+00	3.1E+00				
MW1	99-35-4	SW-846 8330	9/9/2009	-20	-30	4.34E-05	U	4.34E-05	5.00E-02	1.1E+00	3.1E+00				
MW2	99-35-4	SW-846 8330	9/8/2009	-16	-28	3.92E-05	U	3.92E-05	5.00E-02	1.1E+00	3.1E+00				
MW3	99-35-4	SW-846 8330	9/9/2009	-20	-30	4.78E-05	U	4.78E-05	5.00E-02	1.1E+00	3.1E+00				

1,3,5-Trimethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	108-67-8	SW8260B	9/8/2009	0	0	1.66E-03	U	1.66E-03	2.00E-03	1.8E+00	5.1E+00				
EQB2	108-67-8	SW8260B	9/9/2009	0	0	1.66E-03	U	1.66E-03	2.00E-03	1.8E+00	5.1E+00				
MW1	108-67-8	SW8260B	9/9/2009	-20	-30	1.66E-03	U	1.66E-03	2.00E-03	1.8E+00	5.1E+00				
MW2	108-67-8	SW8260B	9/8/2009	-16	-28	1.66E-03	U	1.66E-03	2.00E-03	1.8E+00	5.1E+00				
MW3	108-67-8	SW8260B	9/9/2009	-20	-30	1.66E-03	U	1.66E-03	2.00E-03	1.8E+00	5.1E+00				
MW3F	108-67-8	SW8260B	9/9/2009	-20	-30	1.66E-03	U	1.66E-03	2.00E-03	1.8E+00	5.1E+00				
TB	108-67-8	SW-846 8260B	9/8/2009	0	0	1.42E-04	U	1.42E-04	1.00E-03	1.8E+00	5.1E+00				
TB	108-67-8	SW8260B	9/8/2009	0	0	1.66E-03	U	1.66E-03	2.00E-03	1.8E+00	5.1E+00				
TB1	108-67-8	SW8260B	11/9/2009	0	0	9.26E-04	U	9.26E-04	5.00E-03	1.8E+00	5.1E+00				

1,3-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	541-73-1	SW8260B	9/8/2009	0	0	1.09E-03	U	1.09E-03	2.00E-03	1.1E+00	3.1E+00				
EQB1	541-73-1	SW8270C	9/8/2009	0	0	5.44E-04	U	5.44E-04	2.00E-03	1.1E+00	3.1E+00				
EQB2	541-73-1	SW8260B	9/9/2009	0	0	1.09E-03	U	1.09E-03	2.00E-03	1.1E+00	3.1E+00				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

1,3-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB2	541-73-1	SW8270C	9/9/2009	0	0	5.44E-04	U	5.44E-04	2.00E-03	1.1E+00	3.1E+00				
MW1	541-73-1	SW8260B	9/9/2009	-20	-30	1.09E-03	U	1.09E-03	2.00E-03	1.1E+00	3.1E+00				
MW1	541-73-1	SW8270C	9/9/2009	-20	-30	5.44E-04	U	5.44E-04	2.00E-03	1.1E+00	3.1E+00				
MW2	541-73-1	SW8270C	9/8/2009	-16	-28	5.44E-04	U	5.44E-04	2.00E-03	1.1E+00	3.1E+00				
MW2	541-73-1	SW8260B	9/8/2009	-16	-28	1.09E-03	U	1.09E-03	2.00E-03	1.1E+00	3.1E+00				
MW3	541-73-1	SW8260B	9/9/2009	-20	-30	1.09E-03	U	1.09E-03	2.00E-03	1.1E+00	3.1E+00				
MW3	541-73-1	SW8270C	9/9/2009	-20	-30	5.44E-04	U	5.44E-04	2.00E-03	1.1E+00	3.1E+00				
MW3F	541-73-1	SW8260B	9/9/2009	-20	-30	1.09E-03	U	1.09E-03	2.00E-03	1.1E+00	3.1E+00				
MW3F	541-73-1	SW8270C	9/9/2009	-20	-30	5.44E-04	U	5.44E-04	2.00E-03	1.1E+00	3.1E+00				
TB	541-73-1	SW8260B	9/8/2009	0	0	1.09E-03	U	1.09E-03	2.00E-03	1.1E+00	3.1E+00				
TB	541-73-1	SW-846 8260B	9/8/2009	0	0	1.03E-04	U	1.03E-04	1.00E-03	1.1E+00	3.1E+00				
TB1	541-73-1	SW8260B	11/9/2009	0	0	1.32E-03	U	1.32E-03	5.00E-03	1.1E+00	3.1E+00				

1,3-Dichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	142-28-9	SW8260B	9/8/2009	0	0	1.32E-03	U	1.32E-03	2.00E-03	8.5E-03	2.9E-02				
EQB2	142-28-9	SW8260B	9/9/2009	0	0	1.32E-03	U	1.32E-03	2.00E-03	8.5E-03	2.9E-02				
MW1	142-28-9	SW8260B	9/9/2009	-20	-30	1.32E-03	U	1.32E-03	2.00E-03	8.5E-03	2.9E-02				
MW2	142-28-9	SW8260B	9/8/2009	-16	-28	1.32E-03	U	1.32E-03	2.00E-03	8.5E-03	2.9E-02				
MW3	142-28-9	SW8260B	9/9/2009	-20	-30	1.32E-03	U	1.32E-03	2.00E-03	8.5E-03	2.9E-02				
MW3F	142-28-9	SW8260B	9/9/2009	-20	-30	1.32E-03	U	1.32E-03	2.00E-03	8.5E-03	2.9E-02				
TB	142-28-9	SW-846 8260B	9/8/2009	0	0	1.82E-04	U	1.82E-04	1.00E-03	8.5E-03	2.9E-02				
TB	142-28-9	SW8260B	9/8/2009	0	0	1.32E-03	U	1.32E-03	2.00E-03	8.5E-03	2.9E-02				
TB1	142-28-9	SW8260B	11/9/2009	0	0	5.97E-04	U	5.97E-04	5.00E-03	8.5E-03	2.9E-02				

1,3-Dinitrobenzene (DNB)

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	99-65-0	SW-846 8330	9/8/2009	0	0	9.59E-05	U	9.59E-05	5.00E-02	3.6E-03	1.0E-02				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

1,3-Dinitrobenzene (DNB)

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB2	99-65-0	SW-846 8330	9/9/2009	0	0	8.72E-05	U	8.72E-05	5.00E-02	3.6E-03	1.0E-02				
MW1	99-65-0	SW-846 8330	9/9/2009	-20	-30	8.72E-05	U	8.72E-05	5.00E-02	3.6E-03	1.0E-02				
MW2	99-65-0	SW-846 8330	9/8/2009	-16	-28	7.86E-05	U	7.86E-05	5.00E-02	3.6E-03	1.0E-02				
MW3	99-65-0	SW-846 8330	9/9/2009	-20	-30	9.59E-05	U	9.59E-05	5.00E-02	3.6E-03	1.0E-02				

1,4-Dichlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	106-46-7	SW8260B	9/8/2009	0	0	1.34E-03	U	1.34E-03	2.00E-03	7.5E-02	7.5E-02				
EQB1	106-46-7	SW8270C	9/8/2009	0	0	6.01E-04	U	6.01E-04	2.00E-03	7.5E-02	7.5E-02				
EQB2	106-46-7	SW8260B	9/9/2009	0	0	1.34E-03	U	1.34E-03	2.00E-03	7.5E-02	7.5E-02				
EQB2	106-46-7	SW8270C	9/9/2009	0	0	6.01E-04	U	6.01E-04	2.00E-03	7.5E-02	7.5E-02				
MW1	106-46-7	SW8260B	9/9/2009	-20	-30	1.34E-03	U	1.34E-03	2.00E-03	7.5E-02	7.5E-02				
MW1	106-46-7	SW8270C	9/9/2009	-20	-30	6.01E-04	U	6.01E-04	2.00E-03	7.5E-02	7.5E-02				
MW2	106-46-7	SW8260B	9/8/2009	-16	-28	1.34E-03	U	1.34E-03	2.00E-03	7.5E-02	7.5E-02				
MW2	106-46-7	SW8270C	9/8/2009	-16	-28	6.01E-04	U	6.01E-04	2.00E-03	7.5E-02	7.5E-02				
MW3	106-46-7	SW8260B	9/9/2009	-20	-30	1.34E-03	U	1.34E-03	2.00E-03	7.5E-02	7.5E-02				
MW3	106-46-7	SW8270C	9/9/2009	-20	-30	6.01E-04	U	6.01E-04	2.00E-03	7.5E-02	7.5E-02				
MW3F	106-46-7	SW8260B	9/9/2009	-20	-30	1.34E-03	U	1.34E-03	2.00E-03	7.5E-02	7.5E-02				
MW3F	106-46-7	SW8270C	9/9/2009	-20	-30	6.01E-04	U	6.01E-04	2.00E-03	7.5E-02	7.5E-02				
TB	106-46-7	SW-846 8260B	9/8/2009	0	0	1.75E-04	U	1.75E-04	1.00E-03	7.5E-02	7.5E-02				
TB	106-46-7	SW8260B	9/8/2009	0	0	1.34E-03	U	1.34E-03	2.00E-03	7.5E-02	7.5E-02				
TB1	106-46-7	SW8260B	11/9/2009	0	0	1.09E-03	U	1.09E-03	5.00E-03	7.5E-02	7.5E-02				

2,2-Dichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	594-20-7	SW8260B	9/8/2009	0	0	1.32E-03	U	1.32E-03	2.00E-03	1.3E-02	4.2E-02				
EQB2	594-20-7	SW8260B	9/9/2009	0	0	1.32E-03	U	1.32E-03	2.00E-03	1.3E-02	4.2E-02				
MW1	594-20-7	SW8260B	9/9/2009	-20	-30	1.32E-03	U	1.32E-03	2.00E-03	1.3E-02	4.2E-02				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

2,2-Dichloropropane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW2	594-20-7	SW8260B	9/8/2009	-16	-28	1.32E-03	U	1.32E-03	2.00E-03	1.3E-02	4.2E-02				
MW3	594-20-7	SW8260B	9/9/2009	-20	-30	1.32E-03	U	1.32E-03	2.00E-03	1.3E-02	4.2E-02				
MW3F	594-20-7	SW8260B	9/9/2009	-20	-30	1.32E-03	U	1.32E-03	2.00E-03	1.3E-02	4.2E-02				
TB	594-20-7	SW-846 8260B	9/8/2009	0	0	7.29E-04	U	7.29E-04	1.00E-03	1.3E-02	4.2E-02				
TB	594-20-7	SW8260B	9/8/2009	0	0	1.32E-03	U	1.32E-03	2.00E-03	1.3E-02	4.2E-02				
TB1	590-20-7	SW8260B	11/9/2009	0	0	1.32E-03	U	1.32E-03	5.00E-03						

2,3,4,6-Tetrachlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	58-90-2	SW8270C	9/8/2009	0	0	8.58E-04	U	8.58E-04	2.00E-03	1.1E+00	3.1E+00				
EQB2	58-90-2	SW8270C	9/9/2009	0	0	8.58E-04	U	8.58E-04	2.00E-03	1.1E+00	3.1E+00				
MW1	58-90-2	SW8270C	9/9/2009	-20	-30	8.58E-04	U	8.58E-04	2.00E-03	1.1E+00	3.1E+00				
MW2	58-90-2	SW8270C	9/8/2009	-16	-28	8.58E-04	U	8.58E-04	2.00E-03	1.1E+00	3.1E+00				
MW3	58-90-2	SW8270C	9/9/2009	-20	-30	8.58E-04	U	8.58E-04	2.00E-03	1.1E+00	3.1E+00				
MW3F	58-90-2	SW8270C	9/9/2009	-20	-30	8.58E-04	U	8.58E-04	2.00E-03	1.1E+00	3.1E+00				

2,4,5-Trichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	95-95-4	SW8270C	9/8/2009	0	0	7.59E-04	U	7.59E-04	2.00E-03	3.6E+00	1.0E+01				
EQB2	95-95-4	SW8270C	9/9/2009	0	0	7.59E-04	U	7.59E-04	2.00E-03	3.6E+00	1.0E+01				
MW1	95-95-4	SW8270C	9/9/2009	-20	-30	7.59E-04	U	7.59E-04	2.00E-03	3.6E+00	1.0E+01				
MW2	95-95-4	SW8270C	9/8/2009	-16	-28	7.59E-04	U	7.59E-04	2.00E-03	3.6E+00	1.0E+01				
MW3	95-95-4	SW8270C	9/9/2009	-20	-30	7.59E-04	U	7.59E-04	2.00E-03	3.6E+00	1.0E+01				
MW3F	95-95-4	SW8270C	9/9/2009	-20	-30	7.59E-04	U	7.59E-04	2.00E-03	3.6E+00	1.0E+01				

2,4,6-Trichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	88-06-2	SW8270C	9/8/2009	0	0	7.40E-04	U	7.40E-04	2.00E-03	7.7E-03	2.6E-02				
EQB2	88-06-2	SW8270C	9/9/2009	0	0	7.40E-04	U	7.40E-04	2.00E-03	7.7E-03	2.6E-02				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

2,4,6-Trichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW1	88-06-2	SW8270C	9/9/2009	-20	-30	7.40E-04	U	7.40E-04	2.00E-03	7.7E-03	2.6E-02				
MW2	88-06-2	SW8270C	9/8/2009	-16	-28	7.40E-04	U	7.40E-04	2.00E-03	7.7E-03	2.6E-02				
MW3	88-06-2	SW8270C	9/9/2009	-20	-30	7.40E-04	U	7.40E-04	2.00E-03	7.7E-03	2.6E-02				
MW3F	88-06-2	SW8270C	9/9/2009	-20	-30	7.40E-04	U	7.40E-04	2.00E-03	7.7E-03	2.6E-02				

2,4,6-Trinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	118-96-7	SW-846 8330	9/8/2009	0	0	6.34E-05	U	6.34E-05	5.00E-02	1.8E-02	5.1E-02				
EQB2	118-96-7	SW-846 8330	9/9/2009	0	0	5.76E-05	U	5.76E-05	5.00E-02	1.8E-02	5.1E-02				
MW1	118-96-7	SW-846 8330	9/9/2009	-20	-30	5.76E-05	U	5.76E-05	5.00E-02	1.8E-02	5.1E-02				
MW2	118-96-7	SW-846 8330	9/8/2009	-16	-28	5.19E-05	U	5.19E-05	5.00E-02	1.8E-02	5.1E-02				
MW3	118-96-7	SW-846 8330	9/9/2009	-20	-30	6.34E-05	U	6.34E-05	5.00E-02	1.8E-02	5.1E-02				

2,4-Dichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	120-83-2	SW8270C	9/8/2009	0	0	6.65E-04	U	6.65E-04	2.00E-03	1.1E-01	3.1E-01				
EQB2	120-83-2	SW8270C	9/9/2009	0	0	6.65E-04	U	6.65E-04	2.00E-03	1.1E-01	3.1E-01				
MW1	120-83-2	SW8270C	9/9/2009	-20	-30	6.65E-04	U	6.65E-04	2.00E-03	1.1E-01	3.1E-01				
MW2	120-83-2	SW8270C	9/8/2009	-16	-28	6.65E-04	U	6.65E-04	2.00E-03	1.1E-01	3.1E-01				
MW3	120-83-2	SW8270C	9/9/2009	-20	-30	6.65E-04	U	6.65E-04	2.00E-03	1.1E-01	3.1E-01				
MW3F	120-83-2	SW8270C	9/9/2009	-20	-30	6.65E-04	U	6.65E-04	2.00E-03	1.1E-01	3.1E-01				

2,4-Dimethylphenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	105-67-9	SW8270C	9/8/2009	0	0	6.97E-04	U	6.97E-04	2.00E-03	7.3E-01	2.0E+00				
EQB2	105-67-9	SW8270C	9/9/2009	0	0	6.97E-04	U	6.97E-04	2.00E-03	7.3E-01	2.0E+00				
MW1	105-67-9	SW8270C	9/9/2009	-20	-30	6.97E-04	U	6.97E-04	2.00E-03	7.3E-01	2.0E+00				
MW2	105-67-9	SW8270C	9/8/2009	-16	-28	6.97E-04	U	6.97E-04	2.00E-03	7.3E-01	2.0E+00				
MW3	105-67-9	SW8270C	9/9/2009	-20	-30	6.97E-04	U	6.97E-04	2.00E-03	7.3E-01	2.0E+00				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

2,4-Dimethylphenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3F	105-67-9	SW8270C	9/9/2009	-20	-30	6.97E-04	U	6.97E-04	2.00E-03	7.3E-01	2.0E+00				

2,4-Dinitrophenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	51-28-5	SW8270C	9/8/2009	0	0	2.15E-03	U	2.15E-03	2.00E-03	7.3E-02	2.0E-01				
EQB2	51-28-5	SW8270C	9/9/2009	0	0	2.15E-03	U	2.15E-03	2.00E-03	7.3E-02	2.0E-01				
MW1	51-28-5	SW8270C	9/9/2009	-20	-30	2.15E-03	U	2.15E-03	2.00E-03	7.3E-02	2.0E-01				
MW2	51-28-5	SW8270C	9/8/2009	-16	-28	2.15E-03	U	2.15E-03	2.00E-03	7.3E-02	2.0E-01				
MW3	51-28-5	SW8270C	9/9/2009	-20	-30	2.15E-03	U	2.15E-03	2.00E-03	7.3E-02	2.0E-01				
MW3F	51-28-5	SW8270C	9/9/2009	-20	-30	2.15E-03	U	2.15E-03	2.00E-03	7.3E-02	2.0E-01				

2,4-Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	121-14-2	SW-846 8330	9/8/2009	0	0	4.25E-05	U	4.25E-05	5.00E-02	1.3E-04	4.2E-04				
EQB1	121-14-2	SW8270C	9/8/2009	0	0	6.63E-04	U	6.63E-04	2.00E-03	1.3E-04	4.2E-04				
EQB1	121-14-2	8270C	9/8/2009	0	0	2.10E-04	U	2.10E-04	2.00E-03	1.3E-04	4.2E-04				
EQB2	121-14-2	SW8270C	9/9/2009	0	0	6.63E-04	U	6.63E-04	2.00E-03	1.3E-04	4.2E-04				
EQB2	121-14-2	SW-846 8330	9/9/2009	0	0	3.86E-05	U	3.86E-05	5.00E-02	1.3E-04	4.2E-04				
EQB2	121-14-2	8270C	9/9/2009	0	0	2.10E-04	U	2.10E-04	2.00E-03	1.3E-04	4.2E-04				
MW1	121-14-2	8270C	9/9/2009	-20	-30	2.10E-04	U	2.10E-04	2.00E-03	1.3E-04	4.2E-04				
MW1	121-14-2	SW-846 8330	9/9/2009	-20	-30	3.86E-05	U	3.86E-05	5.00E-02	1.3E-04	4.2E-04				
MW1	121-14-2	SW8270C	9/9/2009	-20	-30	6.63E-04	U	6.63E-04	2.00E-03	1.3E-04	4.2E-04				
MW2	121-14-2	SW8270C	9/8/2009	-16	-28	6.63E-04	U	6.63E-04	2.00E-03	1.3E-04	4.2E-04				
MW2	121-14-2	8270C	9/8/2009	-16	-28	2.10E-04	U	2.10E-04	2.00E-03	1.3E-04	4.2E-04				
MW2	121-14-2	SW-846 8330	9/8/2009	-16	-28	3.48E-05	U	3.48E-05	5.00E-02	1.3E-04	4.2E-04				
MW3	121-14-2	8270C	9/9/2009	-20	-30	2.10E-04	U	2.10E-04	2.00E-03	1.3E-04	4.2E-04				
MW3	121-14-2	SW8270C	9/9/2009	-20	-30	6.63E-04	U	6.63E-04	2.00E-03	1.3E-04	4.2E-04				
MW3	121-14-2	SW-846 8330	9/9/2009	-20	-30	4.25E-05	U	4.25E-05	5.00E-02	1.3E-04	4.2E-04				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

2,4-Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3F	121-14-2	8270C	9/9/2009	-20	-30	2.10E-04	U	2.10E-04	2.00E-03	1.3E-04	4.2E-04				
MW3F	121-14-2	SW8270C	9/9/2009	-20	-30	6.63E-04	U	6.63E-04	2.00E-03	1.3E-04	4.2E-04				

2,6 Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	606-20-2	SW-846 8330	9/8/2009	0	0	6.85E-05	U	6.85E-05	5.00E-02	1.3E-04	4.2E-04				
EQB2	606-20-2	SW-846 8330	9/9/2009	0	0	6.23E-05	U	6.23E-05	5.00E-02	1.3E-04	4.2E-04				
MW1	606-20-2	SW-846 8330	9/9/2009	-20	-30	6.23E-05	U	6.23E-05	5.00E-02	1.3E-04	4.2E-04				
MW2	606-20-2	SW-846 8330	9/8/2009	-16	-28	5.62E-05	U	5.62E-05	5.00E-02	1.3E-04	4.2E-04				
MW3	606-20-2	SW-846 8330	9/9/2009	-20	-30	6.85E-05	U	6.85E-05	5.00E-02	1.3E-04	4.2E-04				

2,6-Dichlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	87-65-0	SW8270C	9/8/2009	0	0	6.65E-04	U	6.65E-04	2.00E-03	3.6E-02	1.0E-01				
EQB2	87-65-0	SW8270C	9/9/2009	0	0	6.65E-04	U	6.65E-04	2.00E-03	3.6E-02	1.0E-01				
MW1	87-65-0	SW8270C	9/9/2009	-20	-30	6.65E-04	U	6.65E-04	2.00E-03	3.6E-02	1.0E-01				
MW2	87-65-0	SW8270C	9/8/2009	-16	-28	6.65E-04	U	6.65E-04	2.00E-03	3.6E-02	1.0E-01				
MW3	87-65-0	SW8270C	9/9/2009	-20	-30	6.65E-04	U	6.65E-04	2.00E-03	3.6E-02	1.0E-01				
MW3F	87-65-0	SW8270C	9/9/2009	-20	-30	6.65E-04	U	6.65E-04	2.00E-03	3.6E-02	1.0E-01				

2,6-Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	606-20-2	SW8270C	9/8/2009	0	0	7.96E-04	U	7.96E-04	2.00E-03	1.3E-04	4.2E-04				
EQB1	606-20-2	8270C	9/8/2009	0	0	2.10E-04	U	2.10E-04	2.00E-03	1.3E-04	4.2E-04				
EQB2	606-20-2	8270C	9/9/2009	0	0	2.10E-04	U	2.10E-04	2.00E-03	1.3E-04	4.2E-04				
EQB2	606-20-2	SW8270C	9/9/2009	0	0	7.96E-04	U	7.96E-04	2.00E-03	1.3E-04	4.2E-04				
MW1	606-20-2	SW8270C	9/9/2009	-20	-30	7.96E-04	U	7.96E-04	2.00E-03	1.3E-04	4.2E-04				
MW1	606-20-2	8270C	9/9/2009	-20	-30	2.10E-04	U	2.10E-04	2.00E-03	1.3E-04	4.2E-04				
MW2	606-20-2	SW8270C	9/8/2009	-16	-28	7.96E-04	U	7.96E-04	2.00E-03	1.3E-04	4.2E-04				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

2,6-Dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW2	606-20-2	8270C	9/8/2009	-16	-28	2.10E-04	U	2.10E-04	2.00E-03	1.3E-04	4.2E-04				
MW3	606-20-2	SW8270C	9/9/2009	-20	-30	7.96E-04	U	7.96E-04	2.00E-03	1.3E-04	4.2E-04				
MW3	606-20-2	8270C	9/9/2009	-20	-30	2.10E-04	U	2.10E-04	2.00E-03	1.3E-04	4.2E-04				
MW3F	606-20-2	SW8270C	9/9/2009	-20	-30	7.96E-04	U	7.96E-04	2.00E-03	1.3E-04	4.2E-04				
MW3F	606-20-2	8270C	9/9/2009	-20	-30	2.10E-04	U	2.10E-04	2.00E-03	1.3E-04	4.2E-04				

2-Amino-4,6-dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	35572-78-2	SW-846 8330	9/8/2009	0	0	5.05E-05	U	5.05E-05	5.00E-02	6.1E-03	1.7E-02				
EQB2	35572-78-2	SW-846 8330	9/9/2009	0	0	4.59E-05	U	4.59E-05	5.00E-02	6.1E-03	1.7E-02				
MW1	35572-78-2	SW-846 8330	9/9/2009	-20	-30	4.59E-05	U	4.59E-05	5.00E-02	6.1E-03	1.7E-02				
MW2	35572-78-2	SW-846 8330	9/8/2009	-16	-28	4.14E-05	U	4.14E-05	5.00E-02	6.1E-03	1.7E-02				
MW3	35572-78-2	SW-846 8330	9/9/2009	-20	-30	5.05E-05	U	5.05E-05	5.00E-02	6.1E-03	1.7E-02				

2-Butanone

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	78-93-3	SW8260B	9/8/2009	0	0	8.83E-03	U	8.83E-03	2.00E-03	2.2E+01	6.1E+01				
EQB2	78-93-3	SW8260B	9/9/2009	0	0	8.83E-03	U	8.83E-03	2.00E-03	2.2E+01	6.1E+01				
MW1	78-93-3	SW8260B	9/9/2009	-20	-30	8.83E-03	U	8.83E-03	2.00E-03	2.2E+01	6.1E+01				
MW2	78-93-3	SW8260B	9/8/2009	-16	-28	8.83E-03	U	8.83E-03	2.00E-03	2.2E+01	6.1E+01				
MW3	78-93-3	SW8260B	9/9/2009	-20	-30	8.83E-03	U	8.83E-03	2.00E-03	2.2E+01	6.1E+01				
MW3F	78-93-3	SW8260B	9/9/2009	-20	-30	8.83E-03	U	8.83E-03	2.00E-03	2.2E+01	6.1E+01				
TB	78-93-3	SW8260B	9/8/2009	0	0	8.83E-03	U	8.83E-03	2.00E-03	2.2E+01	6.1E+01				
TB1	78-93-3	SW8260B	11/9/2009	0	0	5.63E-03	U	5.63E-03	2.00E-02	2.2E+01	6.1E+01				

2-Chloroethylvinyl ether

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB	110-75-8	SW-846 8260B	9/8/2009	0	0	3.24E-04	U	3.24E-04	1.00E-03	7.7E-04	2.6E-03				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

2-Chloronaphthalene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	91-58-7	SW8270C	9/8/2009	0	0	5.46E-04	U	5.46E-04	2.00E-03	2.9E+00	8.2E+00				
EQB2	91-58-7	SW8270C	9/9/2009	0	0	5.46E-04	U	5.46E-04	2.00E-03	2.9E+00	8.2E+00				
MW1	91-58-7	SW8270C	9/9/2009	-20	-30	5.46E-04	U	5.46E-04	2.00E-03	2.9E+00	8.2E+00				
MW2	91-58-7	SW8270C	9/8/2009	-16	-28	5.46E-04	U	5.46E-04	2.00E-03	2.9E+00	8.2E+00				
MW3	91-58-7	SW8270C	9/9/2009	-20	-30	5.46E-04	U	5.46E-04	2.00E-03	2.9E+00	8.2E+00				
MW3F	91-58-7	SW8270C	9/9/2009	-20	-30	5.46E-04	U	5.46E-04	2.00E-03	2.9E+00	8.2E+00				

2-Chlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	95-57-8	SW8270C	9/8/2009	0	0	7.98E-04	U	7.98E-04	2.00E-03	1.8E-01	5.1E-01				
EQB2	95-57-8	SW8270C	9/9/2009	0	0	7.98E-04	U	7.98E-04	2.00E-03	1.8E-01	5.1E-01				
MW1	95-57-8	SW8270C	9/9/2009	-20	-30	7.98E-04	U	7.98E-04	2.00E-03	1.8E-01	5.1E-01				
MW2	95-57-8	SW8270C	9/8/2009	-16	-28	7.98E-04	U	7.98E-04	2.00E-03	1.8E-01	5.1E-01				
MW3	95-57-8	SW8270C	9/9/2009	-20	-30	7.98E-04	U	7.98E-04	2.00E-03	1.8E-01	5.1E-01				
MW3F	95-57-8	SW8270C	9/9/2009	-20	-30	7.98E-04	U	7.98E-04	2.00E-03	1.8E-01	5.1E-01				

2-Chlorotoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	95-49-8	SW8260B	9/8/2009	0	0	1.19E-03	U	1.19E-03	2.00E-03	7.3E-01	2.0E+00				
EQB2	95-49-8	SW8260B	9/9/2009	0	0	1.19E-03	U	1.19E-03	2.00E-03	7.3E-01	2.0E+00				
MW1	95-49-8	SW8260B	9/9/2009	-20	-30	1.19E-03	U	1.19E-03	2.00E-03	7.3E-01	2.0E+00				
MW2	95-49-8	SW8260B	9/8/2009	-16	-28	1.19E-03	U	1.19E-03	2.00E-03	7.3E-01	2.0E+00				
MW3	95-49-8	SW8260B	9/9/2009	-20	-30	1.19E-03	U	1.19E-03	2.00E-03	7.3E-01	2.0E+00				
MW3F	95-49-8	SW8260B	9/9/2009	-20	-30	1.19E-03	U	1.19E-03	2.00E-03	7.3E-01	2.0E+00				
TB	95-49-8	SW-846 8260B	9/8/2009	0	0	1.98E-04	U	1.98E-04	1.00E-03	7.3E-01	2.0E+00				
TB	95-49-8	SW8260B	9/8/2009	0	0	1.19E-03	U	1.19E-03	2.00E-03	7.3E-01	2.0E+00				
TB1	95-49-8	SW8260B	11/9/2009	0	0	9.89E-04	U	9.89E-04	5.00E-03	7.3E-01	2.0E+00				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

2-Hexanone

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	591-78-6	SW8260B	9/8/2009	0	0	2.05E-03	U	2.05E-03	2.00E-03	2.2E+00	6.1E+00				
EQB2	591-78-6	SW8260B	9/9/2009	0	0	2.05E-03	U	2.05E-03	2.00E-03	2.2E+00	6.1E+00				
MW1	591-78-6	SW8260B	9/9/2009	-20	-30	2.05E-03	U	2.05E-03	2.00E-03	2.2E+00	6.1E+00				
MW2	591-78-6	SW8260B	9/8/2009	-16	-28	2.05E-03	U	2.05E-03	2.00E-03	2.2E+00	6.1E+00				
MW3	591-78-6	SW8260B	9/9/2009	-20	-30	2.05E-03	U	2.05E-03	2.00E-03	2.2E+00	6.1E+00				
MW3F	591-78-6	SW8260B	9/9/2009	-20	-30	2.05E-03	U	2.05E-03	2.00E-03	2.2E+00	6.1E+00				
TB	591-78-6	SW8260B	9/8/2009	0	0	2.05E-03	U	2.05E-03	2.00E-03	2.2E+00	6.1E+00				
TB1	591-78-6	SW8260B	11/9/2009	0	0	2.05E-03	U	2.05E-03	1.00E-02	2.2E+00	6.1E+00				

2-Methylnaphthalene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	91-57-6	SW8270C	9/8/2009	0	0	6.03E-04	U	6.03E-04	2.00E-03	1.5E-01	4.1E-01				
EQB2	91-57-6	SW8270C	9/9/2009	0	0	6.03E-04	U	6.03E-04	2.00E-03	1.5E-01	4.1E-01				
MW1	91-57-6	SW8270C	9/9/2009	-20	-30	6.03E-04	U	6.03E-04	2.00E-03	1.5E-01	4.1E-01				
MW2	91-57-6	SW8270C	9/8/2009	-16	-28	6.03E-04	U	6.03E-04	2.00E-03	1.5E-01	4.1E-01				
MW3	91-57-6	SW8270C	9/9/2009	-20	-30	6.03E-04	U	6.03E-04	2.00E-03	1.5E-01	4.1E-01				
MW3F	91-57-6	SW8270C	9/9/2009	-20	-30	6.03E-04	U	6.03E-04	2.00E-03	1.5E-01	4.1E-01				

2-Methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	95-48-7	SW8270C	9/8/2009	0	0	9.46E-04	U	9.46E-04	2.00E-03	1.8E+00	5.1E+00				
EQB2	95-48-7	SW8270C	9/9/2009	0	0	9.46E-04	U	9.46E-04	2.00E-03	1.8E+00	5.1E+00				
MW1	95-48-7	SW8270C	9/9/2009	-20	-30	9.46E-04	U	9.46E-04	2.00E-03	1.8E+00	5.1E+00				
MW2	95-48-7	SW8270C	9/8/2009	-16	-28	9.46E-04	U	9.46E-04	2.00E-03	1.8E+00	5.1E+00				
MW3	95-48-7	SW8270C	9/9/2009	-20	-30	9.46E-04	U	9.46E-04	2.00E-03	1.8E+00	5.1E+00				
MW3F	95-48-7	SW8270C	9/9/2009	-20	-30	9.46E-04	U	9.46E-04	2.00E-03	1.8E+00	5.1E+00				

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

2-Naphthylamine

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	91-59-8	SW8270C	9/8/2009	0	0	1.60E-03	U	1.60E-03	2.00E-03	4.7E-04	1.6E-03				
EQB1	91-59-8	8270C	9/8/2009	0	0	3.60E-04	U	3.60E-04	2.00E-03	4.7E-04	1.6E-03				
EQB2	91-59-8	8270C	9/9/2009	0	0	3.60E-04	U	3.60E-04	2.00E-03	4.7E-04	1.6E-03				
EQB2	91-59-8	SW8270C	9/9/2009	0	0	1.60E-03	U	1.60E-03	2.00E-03	4.7E-04	1.6E-03				
MW1	91-59-8	SW8270C	9/9/2009	-20	-30	1.60E-03	U	1.60E-03	2.00E-03	4.7E-04	1.6E-03				
MW1	91-59-8	8270C	9/9/2009	-20	-30	3.60E-04	U	3.60E-04	2.00E-03	4.7E-04	1.6E-03				
MW2	91-59-8	SW8270C	9/8/2009	-16	-28	1.60E-03	U	1.60E-03	2.00E-03	4.7E-04	1.6E-03				
MW2	91-59-8	8270C	9/8/2009	-16	-28	3.60E-04	U	3.60E-04	2.00E-03	4.7E-04	1.6E-03				
MW3	91-59-8	SW8270C	9/9/2009	-20	-30	1.60E-03	U	1.60E-03	2.00E-03	4.7E-04	1.6E-03				
MW3	91-59-8	8270C	9/9/2009	-20	-30	3.60E-04	U	3.60E-04	2.00E-03	4.7E-04	1.6E-03				
MW3F	91-59-8	8270C	9/9/2009	-20	-30	3.60E-04	U	3.60E-04	2.00E-03	4.7E-04	1.6E-03				
MW3F	91-59-8	SW8270C	9/9/2009	-20	-30	1.60E-03	U	1.60E-03	2.00E-03	4.7E-04	1.6E-03				

2-Nitroaniline

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	88-74-4	SW8270C	9/8/2009	0	0	1.17E-03	U	1.17E-03	2.00E-03	1.1E-02	3.1E-02				
EQB2	88-74-4	SW8270C	9/9/2009	0	0	1.17E-03	U	1.17E-03	2.00E-03	1.1E-02	3.1E-02				
MW1	88-74-4	SW8270C	9/9/2009	-20	-30	1.17E-03	U	1.17E-03	2.00E-03	1.1E-02	3.1E-02				
MW2	88-74-4	SW8270C	9/8/2009	-16	-28	1.17E-03	U	1.17E-03	2.00E-03	1.1E-02	3.1E-02				
MW3	88-74-4	SW8270C	9/9/2009	-20	-30	1.17E-03	U	1.17E-03	2.00E-03	1.1E-02	3.1E-02				
MW3F	88-74-4	SW8270C	9/9/2009	-20	-30	1.17E-03	U	1.17E-03	2.00E-03	1.1E-02	3.1E-02				

2-Nitrophenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	88-75-5	SW8270C	9/8/2009	0	0	8.24E-04	U	8.24E-04	2.00E-03	7.3E-02	2.0E-01				
EQB2	88-75-5	SW8270C	9/9/2009	0	0	8.24E-04	U	8.24E-04	2.00E-03	7.3E-02	2.0E-01				
MW1	88-75-5	SW8270C	9/9/2009	-20	-30	8.24E-04	U	8.24E-04	2.00E-03	7.3E-02	2.0E-01				
MW2	88-75-5	SW8270C	9/8/2009	-16	-28	8.24E-04	U	8.24E-04	2.00E-03	7.3E-02	2.0E-01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

2-Nitrophenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3	88-75-5	SW8270C	9/9/2009	-20	-30	8.24E-04	U	8.24E-04	2.00E-03	7.3E-02	2.0E-01				
MW3F	88-75-5	SW8270C	9/9/2009	-20	-30	8.24E-04	U	8.24E-04	2.00E-03	7.3E-02	2.0E-01				

2-Nitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	88-72-2	SW-846 8330	9/8/2009	0	0	3.69E-05	U	3.69E-05	5.00E-02	3.6E-01	1.0E+00				
EQB2	88-72-2	SW-846 8330	9/9/2009	0	0	3.36E-05	U	3.36E-05	5.00E-02	3.6E-01	1.0E+00				
MW1	88-72-2	SW-846 8330	9/9/2009	-20	-30	3.36E-05	U	3.36E-05	5.00E-02	3.6E-01	1.0E+00				
MW2	88-72-2	SW-846 8330	9/8/2009	-16	-28	3.03E-05	U	3.03E-05	5.00E-02	3.6E-01	1.0E+00				
MW3	88-72-2	SW-846 8330	9/9/2009	-20	-30	3.69E-05	U	3.69E-05	5.00E-02	3.6E-01	1.0E+00				

3,3´-Dichlorobenzidine

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	91-94-1	8270C	9/8/2009	0	0	3.20E-04	U	3.20E-04	2.00E-03	1.9E-04	6.4E-04				
EQB1	91-94-1	SW8270C	9/8/2009	0	0	1.93E-03	U	1.93E-03	2.00E-03	1.9E-04	6.4E-04				
EQB2	91-94-1	SW8270C	9/9/2009	0	0	1.93E-03	U	1.93E-03	2.00E-03	1.9E-04	6.4E-04				
EQB2	91-94-1	8270C	9/9/2009	0	0	3.20E-04	U	3.20E-04	2.00E-03	1.9E-04	6.4E-04				
MW1	91-94-1	8270C	9/9/2009	-20	-30	3.20E-04	U	3.20E-04	2.00E-03	1.9E-04	6.4E-04				
MW1	91-94-1	SW8270C	9/9/2009	-20	-30	1.93E-03	U	1.93E-03	2.00E-03	1.9E-04	6.4E-04				
MW2	91-94-1	SW8270C	9/8/2009	-16	-28	1.93E-03	U	1.93E-03	2.00E-03	1.9E-04	6.4E-04				
MW2	91-94-1	8270C	9/8/2009	-16	-28	3.20E-04	U	3.20E-04	2.00E-03	1.9E-04	6.4E-04				
MW3	91-94-1	SW8270C	9/9/2009	-20	-30	1.93E-03	U	1.93E-03	2.00E-03	1.9E-04	6.4E-04				
MW3	91-94-1	8270C	9/9/2009	-20	-30	3.20E-04	U	3.20E-04	2.00E-03	1.9E-04	6.4E-04				
MW3F	91-94-1	SW8270C	9/9/2009	-20	-30	1.93E-03	U	1.93E-03	2.00E-03	1.9E-04	6.4E-04				
MW3F	91-94-1	8270C	9/9/2009	-20	-30	3.20E-04	U	3.20E-04	2.00E-03	1.9E-04	6.4E-04				

3-Methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	108-39-4	SW8270C	9/8/2009	0	0	2.23E-03	U	2.23E-03	2.00E-03	1.8E+00	5.1E+00				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

3-Methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB2	108-39-4	SW8270C	9/9/2009	0	0	2.23E-03	U	2.23E-03	2.00E-03	1.8E+00	5.1E+00				
MW1	108-39-4	SW8270C	9/9/2009	-20	-30	2.23E-03	U	2.23E-03	2.00E-03	1.8E+00	5.1E+00				
MW2	108-39-4	SW8270C	9/8/2009	-16	-28	2.23E-03	U	2.23E-03	2.00E-03	1.8E+00	5.1E+00				
MW3	108-39-4	SW8270C	9/9/2009	-20	-30	2.23E-03	U	2.23E-03	2.00E-03	1.8E+00	5.1E+00				
MW3F	108-39-4	SW8270C	9/9/2009	-20	-30	2.23E-03	U	2.23E-03	2.00E-03	1.8E+00	5.1E+00				

3-Nitroaniline

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	99-09-2	SW8270C	9/8/2009	0	0	1.99E-03	U	1.99E-03	2.00E-03	1.1E-02	3.1E-02				
EQB2	99-09-2	SW8270C	9/9/2009	0	0	1.99E-03	U	1.99E-03	2.00E-03	1.1E-02	3.1E-02				
MW1	99-09-2	SW8270C	9/9/2009	-20	-30	1.99E-03	U	1.99E-03	2.00E-03	1.1E-02	3.1E-02				
MW2	99-09-2	SW8270C	9/8/2009	-16	-28	1.99E-03	U	1.99E-03	2.00E-03	1.1E-02	3.1E-02				
MW3	99-09-2	SW8270C	9/9/2009	-20	-30	1.99E-03	U	1.99E-03	2.00E-03	1.1E-02	3.1E-02				
MW3F	99-09-2	SW8270C	9/9/2009	-20	-30	1.99E-03	U	1.99E-03	2.00E-03	1.1E-02	3.1E-02				

3-Nitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	99-08-1	SW-846 8330	9/8/2009	0	0	4.75E-05	U	4.75E-05	5.00E-02	3.6E-01	1.0E+00				
EQB2	99-08-1	SW-846 8330	9/9/2009	0	0	4.31E-05	U	4.31E-05	5.00E-02	3.6E-01	1.0E+00				
MW1	99-08-1	SW-846 8330	9/9/2009	-20	-30	4.31E-05	U	4.31E-05	5.00E-02	3.6E-01	1.0E+00				
MW2	99-08-1	SW-846 8330	9/8/2009	-16	-28	3.89E-05	U	3.89E-05	5.00E-02	3.6E-01	1.0E+00				
MW3	99-08-1	SW-846 8330	9/9/2009	-20	-30	4.75E-05	U	4.75E-05	5.00E-02	3.6E-01	1.0E+00				

4,6-Dinitro-2-methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	534-52-1	SW8270C	9/8/2009	0	0	1.55E-03	U	1.55E-03	2.00E-03	7.3E-02	2.0E-01				
EQB2	534-52-1	SW8270C	9/9/2009	0	0	1.55E-03	U	1.55E-03	2.00E-03	7.3E-02	2.0E-01				
MW1	534-52-1	SW8270C	9/9/2009	-20	-30	1.55E-03	U	1.55E-03	2.00E-03	7.3E-02	2.0E-01				
MW2	534-52-1	SW8270C	9/8/2009	-16	-28	1.55E-03	U	1.55E-03	2.00E-03	7.3E-02	2.0E-01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

4,6-Dinitro-2-methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3	534-52-1	SW8270C	9/9/2009	-20	-30	1.55E-03	U	1.55E-03	2.00E-03	7.3E-02	2.0E-01				
MW3F	534-52-1	SW8270C	9/9/2009	-20	-30	1.55E-03	U	1.55E-03	2.00E-03	7.3E-02	2.0E-01				

4-Amino-2,6-dinitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	19406-51-0	SW-846 8330	9/8/2009	0	0	9.02E-05	U	9.02E-05	5.00E-02	6.1E-03	1.7E-02				
EQB2	19406-51-0	SW-846 8330	9/9/2009	0	0	8.20E-05	U	8.20E-05	5.00E-02	6.1E-03	1.7E-02				
MW1	19406-51-0	SW-846 8330	9/9/2009	-20	-30	8.20E-05	U	8.20E-05	5.00E-02	6.1E-03	1.7E-02				
MW2	19406-51-0	SW-846 8330	9/8/2009	-16	-28	7.39E-05	U	7.39E-05	5.00E-02	6.1E-03	1.7E-02				
MW3	19406-51-0	SW-846 8330	9/9/2009	-20	-30	9.02E-05	U	9.02E-05	5.00E-02	6.1E-03	1.7E-02				

4-Aminobiphenyl

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	92-67-1	SW8270C	9/8/2009	0	0	5.25E-03	U	5.25E-03	2.00E-03	1.4E-05	4.7E-05				
EQB1 R	92-67-1	SW8270C	9/8/2009	0	0	4.60E-05	U	4.60E-05	2.00E-04	1.4E-05	4.7E-05				
EQB2	92-67-1	SW8270C	9/9/2009	0	0	5.25E-03	U	5.25E-03	2.00E-03	1.4E-05	4.7E-05				
EQB2 R	92-67-1	SW8270C	9/9/2009	0	0	4.60E-05	U	4.60E-05	2.00E-04	1.4E-05	4.7E-05				
MW1	92-67-1	SW8270C	9/9/2009	-20	-30	5.25E-03	U	5.25E-03	2.00E-03	1.4E-05	4.7E-05				
MW1 R	92-67-1	SW8270C	9/9/2009	-20	-30	4.60E-05	U	4.60E-05	2.00E-04	1.4E-05	4.7E-05				
MW2	92-67-1	SW8270C	9/8/2009	-16	-28	5.25E-03	U	5.25E-03	2.00E-03	1.4E-05	4.7E-05				
MW2 R	92-67-1	SW8270C	9/8/2009	-16	-28	4.60E-05	U	4.60E-05	2.00E-04	1.4E-05	4.7E-05				
MW3	92-67-1	SW8270C	9/9/2009	-20	-30	5.25E-03	U	5.25E-03	2.00E-03	1.4E-05	4.7E-05				
MW3 R	92-67-1	SW8270C	9/9/2009	-20	-30	4.60E-05	U	4.60E-05	2.00E-04	1.4E-05	4.7E-05				
MW3F	92-67-1	SW8270C	9/9/2009	-20	-30	5.25E-03	U	5.25E-03	2.00E-03	1.4E-05	4.7E-05				
MW3F R	92-67-1	SW8270C	9/9/2009	-20	-30	4.60E-05	U	4.60E-05	2.00E-04	1.4E-05	4.7E-05				

4-Bromophenyl phenyl ether

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	101-55-3	SW8270C	9/8/2009	0	0	5.93E-04	U	5.93E-04	2.00E-03	5.7E-05	1.9E-04				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

4-Bromophenyl phenyl ether

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB2	101-55-3	SW8270C	9/9/2009	0	0	5.93E-04	U	5.93E-04	2.00E-03	5.7E-05	1.9E-04				
MW1	101-55-3	SW8270C	9/9/2009	-20	-30	5.93E-04	U	5.93E-04	2.00E-03	5.7E-05	1.9E-04				
MW2	101-55-3	SW8270C	9/8/2009	-16	-28	5.93E-04	U	5.93E-04	2.00E-03	5.7E-05	1.9E-04				
MW3	101-55-3	SW8270C	9/9/2009	-20	-30	5.93E-04	U	5.93E-04	2.00E-03	5.7E-05	1.9E-04				
MW3F	101-55-3	SW8270C	9/9/2009	-20	-30	5.93E-04	U	5.93E-04	2.00E-03	5.7E-05	1.9E-04				

4-Bromophenylphenylether

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	101-55-3	8270C	9/8/2009	0	0	1.60E-04	U	1.60E-04	2.00E-03	5.7E-05	1.9E-04				
EQB2	101-55-3	8270C	9/9/2009	0	0	1.60E-04	U	1.60E-04	2.00E-03	5.7E-05	1.9E-04				
MW1	101-55-3	8270C	9/9/2009	-20	-30	1.60E-04	U	1.60E-04	2.00E-03	5.7E-05	1.9E-04				
MW2	101-55-3	8270C	9/8/2009	-16	-28	1.60E-04	U	1.60E-04	2.00E-03	5.7E-05	1.9E-04				
MW3	101-55-3	8270C	9/9/2009	-20	-30	1.60E-04	U	1.60E-04	2.00E-03	5.7E-05	1.9E-04				
MW3F	101-55-3	8270C	9/9/2009	-20	-30	1.60E-04	U	1.60E-04	2.00E-03	5.7E-05	1.9E-04				

4-Chloro-3-methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	59-50-7	SW8270C	9/8/2009	0	0	7.75E-04	U	7.75E-04	2.00E-03	1.8E-01	5.1E-01				
EQB2	59-50-7	SW8270C	9/9/2009	0	0	7.75E-04	U	7.75E-04	2.00E-03	1.8E-01	5.1E-01				
MW1	59-50-7	SW8270C	9/9/2009	-20	-30	7.75E-04	U	7.75E-04	2.00E-03	1.8E-01	5.1E-01				
MW2	59-50-7	SW8270C	9/8/2009	-16	-28	7.75E-04	U	7.75E-04	2.00E-03	1.8E-01	5.1E-01				
MW3	59-50-7	SW8270C	9/9/2009	-20	-30	7.75E-04	U	7.75E-04	2.00E-03	1.8E-01	5.1E-01				
MW3F	59-50-7	SW8270C	9/9/2009	-20	-30	1.36E-03		7.75E-04	2.00E-03	1.8E-01	5.1E-01				

4-Chloroaniline

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	106-47-8	SW8270C	9/8/2009	0	0	4.06E-03	U	4.06E-03	2.00E-03	1.5E-01	4.1E-01				
EQB2	106-47-8	SW8270C	9/9/2009	0	0	4.06E-03	U	4.06E-03	2.00E-03	1.5E-01	4.1E-01				
MW1	106-47-8	SW8270C	9/9/2009	-20	-30	4.06E-03	U	4.06E-03	2.00E-03	1.5E-01	4.1E-01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

4-Chloroaniline

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW2	106-47-8	SW8270C	9/8/2009	-16	-28	4.06E-03	U	4.06E-03	2.00E-03	1.5E-01	4.1E-01				
MW3	106-47-8	SW8270C	9/9/2009	-20	-30	4.06E-03	U	4.06E-03	2.00E-03	1.5E-01	4.1E-01				
MW3F	106-47-8	SW8270C	9/9/2009	-20	-30	4.06E-03	U	4.06E-03	2.00E-03	1.5E-01	4.1E-01				

4-Chlorophenyl phenyl ether

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7005-72-3	SW8270C	9/8/2009	0	0	1.03E-03	U	1.03E-03	2.00E-03	5.7E-05	1.9E-04				
EQB2	7005-72-3	SW8270C	9/9/2009	0	0	1.03E-03	U	1.03E-03	2.00E-03	5.7E-05	1.9E-04				
MW1	7005-72-3	SW8270C	9/9/2009	-20	-30	1.03E-03	U	1.03E-03	2.00E-03	5.7E-05	1.9E-04				
MW2	7005-72-3	SW8270C	9/8/2009	-16	-28	1.03E-03	U	1.03E-03	2.00E-03	5.7E-05	1.9E-04				
MW3	7005-72-3	SW8270C	9/9/2009	-20	-30	1.03E-03	U	1.03E-03	2.00E-03	5.7E-05	1.9E-04				
MW3F	7005-72-3	SW8270C	9/9/2009	-20	-30	1.03E-03	U	1.03E-03	2.00E-03	5.7E-05	1.9E-04				

4-Chlorophenylphenylether

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7005-72-3	8270C	9/8/2009	0	0	1.80E-04	U	1.80E-04	2.00E-03	5.7E-05	1.9E-04				
EQB2	7005-72-3	8270C	9/9/2009	0	0	1.80E-04	U	1.80E-04	2.00E-03	5.7E-05	1.9E-04				
MW1	7005-72-3	8270C	9/9/2009	-20	-30	1.80E-04	U	1.80E-04	2.00E-03	5.7E-05	1.9E-04				
MW2	7005-72-3	8270C	9/8/2009	-16	-28	1.80E-04	U	1.80E-04	2.00E-03	5.7E-05	1.9E-04				
MW3	7005-72-3	8270C	9/9/2009	-20	-30	1.80E-04	U	1.80E-04	2.00E-03	5.7E-05	1.9E-04				
MW3F	7005-72-3	8270C	9/9/2009	-20	-30	1.80E-04	U	1.80E-04	2.00E-03	5.7E-05	1.9E-04				

4-Chlorotoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	106-43-4	SW8260B	9/8/2009	0	0	1.70E-03	U	1.70E-03	2.00E-03	7.3E-01	2.0E+00				
EQB2	106-43-4	SW8260B	9/9/2009	0	0	1.70E-03	U	1.70E-03	2.00E-03	7.3E-01	2.0E+00				
MW1	106-43-4	SW8260B	9/9/2009	-20	-30	1.70E-03	U	1.70E-03	2.00E-03	7.3E-01	2.0E+00				
MW2	106-43-4	SW8260B	9/8/2009	-16	-28	1.70E-03	U	1.70E-03	2.00E-03	7.3E-01	2.0E+00				
MW3	106-43-4	SW8260B	9/9/2009	-20	-30	1.70E-03	U	1.70E-03	2.00E-03	7.3E-01	2.0E+00				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

4-Chlorotoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3F	106-43-4	SW8260B	9/9/2009	-20	-30	1.70E-03	U	1.70E-03	2.00E-03	7.3E-01	2.0E+00				
TB	106-43-4	SW-846 8260B	9/8/2009	0	0	2.44E-04	U	2.44E-04	1.00E-03	7.3E-01	2.0E+00				
TB	106-43-4	SW8260B	9/8/2009	0	0	1.70E-03	U	1.70E-03	2.00E-03	7.3E-01	2.0E+00				
TB1	106-43-4	SW8260B	11/9/2009	0	0	9.70E-04	U	9.70E-04	5.00E-03	7.3E-01	2.0E+00				

4-Isopropyltoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	99-87-6	SW8260B	9/8/2009	0	0	1.31E-03	U	1.31E-03	2.00E-03	3.6E+00	1.0E+01				
EQB2	99-87-6	SW8260B	9/9/2009	0	0	1.31E-03	U	1.31E-03	2.00E-03	3.6E+00	1.0E+01				
MW1	99-87-6	SW8260B	9/9/2009	-20	-30	1.31E-03	U	1.31E-03	2.00E-03	3.6E+00	1.0E+01				
MW2	99-87-6	SW8260B	9/8/2009	-16	-28	1.31E-03	U	1.31E-03	2.00E-03	3.6E+00	1.0E+01				
MW3	99-87-6	SW8260B	9/9/2009	-20	-30	1.31E-03	U	1.31E-03	2.00E-03	3.6E+00	1.0E+01				
MW3F	99-87-6	SW8260B	9/9/2009	-20	-30	1.31E-03	U	1.31E-03	2.00E-03	3.6E+00	1.0E+01				
TB	99-87-6	SW8260B	9/8/2009	0	0	1.31E-03	U	1.31E-03	2.00E-03	3.6E+00	1.0E+01				
TB1	99-87-6	SW8260B	11/9/2009	0	0	1.31E-03	U	1.31E-03	5.00E-03	3.6E+00	1.0E+01				

4-Methyl-2-pentanone

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	108-10-1	SW8260B	9/8/2009	0	0	1.47E-03	U	1.47E-03	2.00E-03	2.9E+00	8.2E+00				
EQB2	108-10-1	SW8260B	9/9/2009	0	0	1.47E-03	U	1.47E-03	2.00E-03	2.9E+00	8.2E+00				
MW1	108-10-1	SW8260B	9/9/2009	-20	-30	1.47E-03	U	1.47E-03	2.00E-03	2.9E+00	8.2E+00				
MW2	108-10-1	SW8260B	9/8/2009	-16	-28	1.47E-03	U	1.47E-03	2.00E-03	2.9E+00	8.2E+00				
MW3	108-10-1	SW8260B	9/9/2009	-20	-30	1.47E-03	U	1.47E-03	2.00E-03	2.9E+00	8.2E+00				
MW3F	108-10-1	SW8260B	9/9/2009	-20	-30	1.47E-03	U	1.47E-03	2.00E-03	2.9E+00	8.2E+00				
TB	108-10-1	SW8260B	9/8/2009	0	0	1.47E-03	U	1.47E-03	2.00E-03	2.9E+00	8.2E+00				
TB1	108-10-1	SW8260B	11/9/2009	0	0	1.47E-03	U	1.47E-03	1.00E-02	2.9E+00	8.2E+00				

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

4-Methylphenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	106-44-5	SW8270C	9/8/2009	0	0	7.71E-04	U	7.71E-04	2.00E-03	1.8E-01	5.1E-01				
EQB2	106-44-5	SW8270C	9/9/2009	0	0	7.71E-04	U	7.71E-04	2.00E-03	1.8E-01	5.1E-01				
MW1	106-44-5	SW8270C	9/9/2009	-20	-30	7.71E-04	U	7.71E-04	2.00E-03	1.8E-01	5.1E-01				
MW2	106-44-5	SW8270C	9/8/2009	-16	-28	7.71E-04	U	7.71E-04	2.00E-03	1.8E-01	5.1E-01				
MW3	106-44-5	SW8270C	9/9/2009	-20	-30	7.71E-04	U	7.71E-04	2.00E-03	1.8E-01	5.1E-01				
MW3F	106-44-5	SW8270C	9/9/2009	-20	-30	7.71E-04	U	7.71E-04	2.00E-03	1.8E-01	5.1E-01				

4-Nitroaniline

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	100-01-6	SW8270C	9/8/2009	0	0	2.48E-03	U	2.48E-03	2.00E-03	2.2E-02	7.5E-02				
EQB2	100-01-6	SW8270C	9/9/2009	0	0	2.48E-03	U	2.48E-03	2.00E-03	2.2E-02	7.5E-02				
MW1	100-01-6	SW8270C	9/9/2009	-20	-30	2.48E-03	U	2.48E-03	2.00E-03	2.2E-02	7.5E-02				
MW2	100-01-6	SW8270C	9/8/2009	-16	-28	2.48E-03	U	2.48E-03	2.00E-03	2.2E-02	7.5E-02				
MW3	100-01-6	SW8270C	9/9/2009	-20	-30	2.48E-03	U	2.48E-03	2.00E-03	2.2E-02	7.5E-02				
MW3F	100-01-6	SW8270C	9/9/2009	-20	-30	2.48E-03	U	2.48E-03	2.00E-03	2.2E-02	7.5E-02				

4-Nitrophenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	100-02-7	SW8270C	9/8/2009	0	0	1.29E-03	U	1.29E-03	2.00E-03	7.3E-02	2.0E-01				
EQB2	100-02-7	SW8270C	9/9/2009	0	0	1.29E-03	U	1.29E-03	2.00E-03	7.3E-02	2.0E-01				
MW1	100-02-7	SW8270C	9/9/2009	-20	-30	1.29E-03	U	1.29E-03	2.00E-03	7.3E-02	2.0E-01				
MW2	100-02-7	SW8270C	9/8/2009	-16	-28	1.29E-03	U	1.29E-03	2.00E-03	7.3E-02	2.0E-01				
MW3	100-02-7	SW8270C	9/9/2009	-20	-30	1.29E-03	U	1.29E-03	2.00E-03	7.3E-02	2.0E-01				
MW3F	100-02-7	SW8270C	9/9/2009	-20	-30	1.29E-03	U	1.29E-03	2.00E-03	7.3E-02	2.0E-01				

4-Nitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	99-99-0	SW-846 8330	9/8/2009	0	0	7.82E-05	U	7.82E-05	5.00E-02	3.6E-01	1.0E+00				
EQB2	99-99-0	SW-846 8330	9/9/2009	0	0	7.11E-05	U	7.11E-05	5.00E-02	3.6E-01	1.0E+00				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

4-Nitrotoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW1	99-99-0	SW-846 8330	9/9/2009	-20	-30	7.11E-05	U	7.11E-05	5.00E-02	3.6E-01	1.0E+00				
MW2	99-99-0	SW-846 8330	9/8/2009	-16	-28	6.41E-05	U	6.41E-05	5.00E-02	3.6E-01	1.0E+00				
MW3	99-99-0	SW-846 8330	9/9/2009	-20	-30	7.82E-05	U	7.82E-05	5.00E-02	3.6E-01	1.0E+00				

Acenaphthene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	83-32-9	8270C	9/8/2009	0	0	2.20E-04	U	2.20E-04	2.00E-03	2.2E+00	2.2E+00				
EQB1	83-32-9	SW8270C	9/8/2009	0	0	6.41E-04	U	6.41E-04	2.00E-03	2.2E+00	2.2E+00				
EQB2	83-32-9	SW8270C	9/9/2009	0	0	6.41E-04	U	6.41E-04	2.00E-03	2.2E+00	2.2E+00				
EQB2	83-32-9	8270C	9/9/2009	0	0	2.20E-04	U	2.20E-04	2.00E-03	2.2E+00	2.2E+00				
MW1	83-32-9	8270C	9/9/2009	-20	-30	2.20E-04	U	2.20E-04	2.00E-03	2.2E+00	2.2E+00				
MW1	83-32-9	SW8270C	9/9/2009	-20	-30	6.41E-04	U	6.41E-04	2.00E-03	2.2E+00	2.2E+00				
MW2	83-32-9	SW8270C	9/8/2009	-16	-28	6.41E-04	U	6.41E-04	2.00E-03	2.2E+00	2.2E+00				
MW2	83-32-9	8270C	9/8/2009	-16	-28	2.20E-04	U	2.20E-04	2.00E-03	2.2E+00	2.2E+00				
MW3	83-32-9	SW8270C	9/9/2009	-20	-30	6.41E-04	U	6.41E-04	2.00E-03	2.2E+00	2.2E+00				
MW3	83-32-9	8270C	9/9/2009	-20	-30	2.20E-04	U	2.20E-04	2.00E-03	2.2E+00	2.2E+00				
MW3F	83-32-9	SW8270C	9/9/2009	-20	-30	6.41E-04	U	6.41E-04	2.00E-03	2.2E+00	2.2E+00				
MW3F	83-32-9	8270C	9/9/2009	-20	-30	2.20E-04	U	2.20E-04	2.00E-03	2.2E+00	2.2E+00				

Acenaphthylene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	208-96-8	SW8270C	9/8/2009	0	0	4.91E-04	U	4.91E-04	2.00E-03	2.2E+00	6.1E+00				
EQB2	208-96-8	SW8270C	9/9/2009	0	0	4.91E-04	U	4.91E-04	2.00E-03	2.2E+00	6.1E+00				
MW1	208-96-8	SW8270C	9/9/2009	-20	-30	4.91E-04	U	4.91E-04	2.00E-03	2.2E+00	6.1E+00				
MW2	208-96-8	SW8270C	9/8/2009	-16	-28	4.91E-04	U	4.91E-04	2.00E-03	2.2E+00	6.1E+00				
MW3	208-96-8	SW8270C	9/9/2009	-20	-30	4.91E-04	U	4.91E-04	2.00E-03	2.2E+00	6.1E+00				
MW3F	208-96-8	SW8270C	9/9/2009	-20	-30	4.91E-04	U	4.91E-04	2.00E-03	2.2E+00	6.1E+00				

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Acetone

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	67-64-1	SW8260B	9/8/2009	0	0	1.06E-02	U	1.06E-02	2.00E-03	3.3E+01	9.2E+01				
EQB2	67-64-1	SW8260B	9/9/2009	0	0	1.06E-02	U	1.06E-02	2.00E-03	3.3E+01	9.2E+01				
MW1	67-64-1	SW8260B	9/9/2009	-20	-30	1.06E-02	U	1.06E-02	2.00E-03	3.3E+01	9.2E+01				
MW2	67-64-1	SW8260B	9/8/2009	-16	-28	1.06E-02	U	1.06E-02	2.00E-03	3.3E+01	9.2E+01				
MW3	67-64-1	SW8260B	9/9/2009	-20	-30	1.06E-02	U	1.06E-02	2.00E-03	3.3E+01	9.2E+01				
MW3F	67-64-1	SW8260B	9/9/2009	-20	-30	1.06E-02	U	1.06E-02	2.00E-03	3.3E+01	9.2E+01				
TB	67-64-1	SW-846 8260B	9/8/2009	0	0	1.43E-03	U	1.43E-03	2.00E-03	3.3E+01	9.2E+01				
TB	67-64-1	SW8260B	9/8/2009	0	0	1.06E-02	U	1.06E-02	2.00E-03	3.3E+01	9.2E+01				
TB1	67-64-1	SW8260B	11/9/2009	0	0	4.11E-03	U	4.11E-03	2.00E-02	3.3E+01	9.2E+01				

Acetophenone

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	98-86-2	SW8270C	9/8/2009	0	0	7.70E-04	U	7.70E-04	2.00E-03	3.6E+00	1.0E+01				
EQB2	98-86-2	SW8270C	9/9/2009	0	0	7.70E-04	U	7.70E-04	2.00E-03	3.6E+00	1.0E+01				
MW1	98-86-2	SW8270C	9/9/2009	-20	-30	7.70E-04	U	7.70E-04	2.00E-03	3.6E+00	1.0E+01				
MW2	98-86-2	SW8270C	9/8/2009	-16	-28	7.70E-04	U	7.70E-04	2.00E-03	3.6E+00	1.0E+01				
MW3	98-86-2	SW8270C	9/9/2009	-20	-30	7.70E-04	U	7.70E-04	2.00E-03	3.6E+00	1.0E+01				
MW3F	98-86-2	SW8270C	9/9/2009	-20	-30	7.70E-04	U	7.70E-04	2.00E-03	3.6E+00	1.0E+01				

Acrolein

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB	107-02-8	SW-846 8260B	9/8/2009	0	0	2.35E-03	U	2.35E-03	2.50E-03	1.8E-02	5.1E-02				

Acrylonitrile

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB	107-13-1	SW-846 8260B	9/8/2009	0	0	4.90E-04	U	4.90E-04	1.00E-03	1.6E-04	5.3E-04				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Allyl chloride

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	107-05-1	SW8260B	9/8/2009	0	0	1.24E-03	U	1.24E-03	2.00E-03	3.6E-01	1.0E+00				
EQB2	107-05-1	SW8260B	9/9/2009	0	0	1.24E-03	U	1.24E-03	2.00E-03	3.6E-01	1.0E+00				
MW1	107-05-1	SW8260B	9/9/2009	-20	-30	1.24E-03	U	1.24E-03	2.00E-03	3.6E-01	1.0E+00				
MW2	107-05-1	SW8260B	9/8/2009	-16	-28	1.24E-03	U	1.24E-03	2.00E-03	3.6E-01	1.0E+00				
MW3	107-05-1	SW8260B	9/9/2009	-20	-30	1.24E-03	U	1.24E-03	2.00E-03	3.6E-01	1.0E+00				
MW3F	107-05-1	SW8260B	9/9/2009	-20	-30	1.24E-03	U	1.24E-03	2.00E-03	3.6E-01	1.0E+00				
TB	107-05-1	SW8260B	9/8/2009	0	0	1.24E-03	U	1.24E-03	2.00E-03	3.6E-01	1.0E+00				
TB1	107-05-1	SW8260B	11/9/2009	0	0	1.24E-03	U	1.24E-03	5.00E-03	3.6E-01	1.0E+00				

Aluminum

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7429-90-5	SW6010B	9/8/2009	0	0	2.17E-02	U	2.17E-02	2.00E+00	3.7E+01	1.0E+02	3.72E-01	7.16E-01	1.86E+00	2.68E+00
EQB2	7429-90-5	SW6010B	9/9/2009	0	0	2.17E-02	U	2.17E-02	2.00E+00	3.7E+01	1.0E+02	3.72E-01	7.16E-01	1.86E+00	2.68E+00
MW1	7429-90-5	SW6010B	9/9/2009	-20	-30	2.17E-02	U	2.17E-02	2.00E+00	3.7E+01	1.0E+02	3.72E-01	7.16E-01	1.86E+00	2.68E+00
MW2	7429-90-5	SW6010B	9/8/2009	-16	-28	5.00E-01		2.17E-02	2.00E+00	3.7E+01	1.0E+02	3.72E-01	7.16E-01	1.86E+00	2.68E+00
MW2F	7429-90-5	SW6010B	9/8/2009	-16	-28	2.17E-02	U	2.17E-02	2.00E+00	3.7E+01	1.0E+02	3.72E-01	7.16E-01	1.86E+00	2.68E+00
MW3	7429-90-5	SW6010B	9/9/2009	-20	-30	1.30E-01		2.17E-02	2.00E+00	3.7E+01	1.0E+02	3.72E-01	7.16E-01	1.86E+00	2.68E+00
MW3F	7429-90-5	SW6010B	9/9/2009	-20	-30	2.17E-02	U	2.17E-02	2.00E+00	3.7E+01	1.0E+02	3.72E-01	7.16E-01	1.86E+00	2.68E+00

Aniline

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	62-53-3	SW8270C	9/8/2009	0	0	5.78E-04	U	5.78E-04	2.00E-03	1.5E-02	5.0E-02				
EQB2	62-53-3	SW8270C	9/9/2009	0	0	5.78E-04	U	5.78E-04	2.00E-03	1.5E-02	5.0E-02				
MW1	62-53-3	SW8270C	9/9/2009	-20	-30	5.78E-04	U	5.78E-04	2.00E-03	1.5E-02	5.0E-02				
MW2	62-53-3	SW8270C	9/8/2009	-16	-28	5.78E-04	U	5.78E-04	2.00E-03	1.5E-02	5.0E-02				
MW3	62-53-3	SW8270C	9/9/2009	-20	-30	5.78E-04	U	5.78E-04	2.00E-03	1.5E-02	5.0E-02				
MW3F	62-53-3	SW8270C	9/9/2009	-20	-30	5.78E-04	U	5.78E-04	2.00E-03	1.5E-02	5.0E-02				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Anthracene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	120-12-7	SW8270C	9/8/2009	0	0	7.41E-04	U	7.41E-04	2.00E-03	1.1E+01	3.1E+01				
EQB2	120-12-7	SW8270C	9/9/2009	0	0	7.41E-04	U	7.41E-04	2.00E-03	1.1E+01	3.1E+01				
MW1	120-12-7	SW8270C	9/9/2009	-20	-30	7.41E-04	U	7.41E-04	2.00E-03	1.1E+01	3.1E+01				
MW2	120-12-7	SW8270C	9/8/2009	-16	-28	7.41E-04	U	7.41E-04	2.00E-03	1.1E+01	3.1E+01				
MW3	120-12-7	SW8270C	9/9/2009	-20	-30	7.41E-04	U	7.41E-04	2.00E-03	1.1E+01	3.1E+01				
MW3F	120-12-7	SW8270C	9/9/2009	-20	-30	7.41E-04	U	7.41E-04	2.00E-03	1.1E+01	3.1E+01				

Antimony

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-36-0	SW6010B	9/8/2009	0	0	5.90E-03	U	5.90E-03	2.50E-02	6.0E-03	6.0E-03	7.50E-03	6.50E-03	1.22E-02	1.15E-02
EQB2	7440-36-0	SW6010B	9/9/2009	0	0	5.90E-03	U	5.90E-03	2.50E-02	6.0E-03	6.0E-03	7.50E-03	6.50E-03	1.22E-02	1.15E-02
MW1	7440-36-0	SW6010B	9/9/2009	-20	-30	5.90E-03	U	5.90E-03	2.50E-02	6.0E-03	6.0E-03	7.50E-03	6.50E-03	1.22E-02	1.15E-02
MW2	7440-36-0	SW6010B	9/8/2009	-16	-28	5.90E-03	U	5.90E-03	2.50E-02	6.0E-03	6.0E-03	7.50E-03	6.50E-03	1.22E-02	1.15E-02
MW2F	7440-36-0	SW6010B	9/8/2009	-16	-28	5.90E-03	U	5.90E-03	2.50E-02	6.0E-03	6.0E-03	7.50E-03	6.50E-03	1.22E-02	1.15E-02
MW3	7440-36-0	SW6010B	9/9/2009	-20	-30	5.90E-03	U	5.90E-03	2.50E-02	6.0E-03	6.0E-03	7.50E-03	6.50E-03	1.22E-02	1.15E-02
MW3F	7440-36-0	SW6010B	9/9/2009	-20	-30	5.90E-03	U	5.90E-03	2.50E-02	6.0E-03	6.0E-03	7.50E-03	6.50E-03	1.22E-02	1.15E-02

Arsenic

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-38-2	SW6010B	9/8/2009	0	0	1.00E-02	U	1.00E-02	2.00E+00	1.0E-02	1.0E-02				
EQB2	7440-38-2	SW6010B	9/9/2009	0	0	1.00E-02	U	1.00E-02	2.00E+00	1.0E-02	1.0E-02				
MW1	7440-38-2	SW6010B	9/9/2009	-20	-30	1.00E-02	U	1.00E-02	2.00E+00	1.0E-02	1.0E-02				
MW2	7440-38-2	SW6010B	9/8/2009	-16	-28	1.00E-02	U	1.00E-02	2.00E+00	1.0E-02	1.0E-02				
MW2F	7440-38-2	SW6010B	9/8/2009	-16	-28	1.00E-02	U	1.00E-02	2.00E+00	1.0E-02	1.0E-02				
MW3	7440-38-2	SW6010B	9/9/2009	-20	-30	1.00E-02	U	1.00E-02	2.00E+00	1.0E-02	1.0E-02				
MW3F	7440-38-2	SW6010B	9/9/2009	-20	-30	1.00E-02	U	1.00E-02	2.00E+00	1.0E-02	1.0E-02				

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Barium

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-39-3	SW6010B	9/8/2009	0	0	1.50E-02	U	1.50E-02	2.00E+00	2.0E+00	2.0E+00	5.04E-02	6.07E-02	1.20E-01	1.28E-01
EQB2	7440-39-3	SW6010B	9/9/2009	0	0	1.50E-02	U	1.50E-02	2.00E+00	2.0E+00	2.0E+00	5.04E-02	6.07E-02	1.20E-01	1.28E-01
MW1	7440-39-3	SW6010B	9/9/2009	-20	-30	9.20E-02		1.50E-02	2.00E+00	2.0E+00	2.0E+00	5.04E-02	6.07E-02	1.20E-01	1.28E-01
MW2	7440-39-3	SW6010B	9/8/2009	-16	-28	1.44E-01		1.50E-02	2.00E+00	2.0E+00	2.0E+00	5.04E-02	6.07E-02	1.20E-01	1.28E-01
MW2F	7440-39-3	SW6010B	9/8/2009	-16	-28	1.34E-01		1.50E-02	2.00E+00	2.0E+00	2.0E+00	5.04E-02	6.07E-02	1.20E-01	1.28E-01
MW3	7440-39-3	SW6010B	9/9/2009	-20	-30	9.50E-02		1.50E-02	2.00E+00	2.0E+00	2.0E+00	5.04E-02	6.07E-02	1.20E-01	1.28E-01
MW3F	7440-39-3	SW6010B	9/9/2009	-20	-30	8.60E-02		1.50E-02	2.00E+00	2.0E+00	2.0E+00	5.04E-02	6.07E-02	1.20E-01	1.28E-01

Benzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	71-43-2	SW8260B	9/8/2009	0	0	1.26E-03	U	1.26E-03	2.00E-03	5.0E-03	5.0E-03				
EQB2	71-43-2	SW8260B	9/9/2009	0	0	1.26E-03	U	1.26E-03	2.00E-03	5.0E-03	5.0E-03				
MW1	71-43-2	SW8260B	9/9/2009	-20	-30	1.26E-03	U	1.26E-03	2.00E-03	5.0E-03	5.0E-03				
MW2	71-43-2	SW8260B	9/8/2009	-16	-28	1.26E-03	U	1.26E-03	2.00E-03	5.0E-03	5.0E-03				
MW3	71-43-2	SW8260B	9/9/2009	-20	-30	1.26E-03	U	1.26E-03	2.00E-03	5.0E-03	5.0E-03				
MW3F	71-43-2	SW8260B	9/9/2009	-20	-30	1.26E-03	U	1.26E-03	2.00E-03	5.0E-03	5.0E-03				
TB	71-43-2	SW-846 8260B	9/8/2009	0	0	1.56E-04	U	1.56E-04	1.00E-03	5.0E-03	5.0E-03				
TB	71-43-2	SW8260B	9/8/2009	0	0	1.26E-03	U	1.26E-03	2.00E-03	5.0E-03	5.0E-03				
TB1	71-43-2	SW8260B	11/9/2009	0	0	6.82E-04	U	6.82E-04	5.00E-03	5.0E-03	5.0E-03				

Benzidine

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	92-87-5	SW8270C	9/8/2009	0	0	1.80E-02	U	1.80E-02	2.00E-03	3.7E-07	1.2E-06				
EQB1	92-87-5	8270C	9/8/2009	0	0	2.30E-04	U	2.30E-04	2.00E-03	3.7E-07	1.2E-06				
EQB2	92-87-5	SW8270C	9/9/2009	0	0	1.80E-02	U	1.80E-02	2.00E-03	3.7E-07	1.2E-06				
EQB2	92-87-5	8270C	9/9/2009	0	0	2.30E-04	U	2.30E-04	2.00E-03	3.7E-07	1.2E-06				
MW1	92-87-5	SW8270C	9/9/2009	-20	-30	1.80E-02	U	1.80E-02	2.00E-03	3.7E-07	1.2E-06				
MW1	92-87-5	8270C	9/9/2009	-20	-30	2.30E-04	U	2.30E-04	2.00E-03	3.7E-07	1.2E-06				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Benzidine

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW2	92-87-5	8270C	9/8/2009	-16	-28	2.30E-04	U	2.30E-04	2.00E-03	3.7E-07	1.2E-06				
MW2	92-87-5	SW8270C	9/8/2009	-16	-28	1.80E-02	U	1.80E-02	2.00E-03	3.7E-07	1.2E-06				
MW3	92-87-5	SW8270C	9/9/2009	-20	-30	1.80E-02	U	1.80E-02	2.00E-03	3.7E-07	1.2E-06				
MW3	92-87-5	8270C	9/9/2009	-20	-30	2.30E-04	U	2.30E-04	2.00E-03	3.7E-07	1.2E-06				
MW3F	92-87-5	SW8270C	9/9/2009	-20	-30	1.80E-02	U	1.80E-02	2.00E-03	3.7E-07	1.2E-06				
MW3F	92-87-5	8270C	9/9/2009	-20	-30	2.30E-04	U	2.30E-04	2.00E-03	3.7E-07	1.2E-06				

Benzo(a)anthracene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	56-55-3	8270C	9/8/2009	0	0	1.90E-04	U	1.90E-04	2.00E-03	2.0E-04	3.9E-04				
EQB1	56-55-3	SW8270C	9/8/2009	0	0	7.87E-04	U	7.87E-04	2.00E-03	2.0E-04	3.9E-04				
EQB2	56-55-3	SW8270C	9/9/2009	0	0	7.87E-04	U	7.87E-04	2.00E-03	2.0E-04	3.9E-04				
EQB2	56-55-3	8270C	9/9/2009	0	0	1.90E-04	U	1.90E-04	2.00E-03	2.0E-04	3.9E-04				
MW1	56-55-3	8270C	9/9/2009	-20	-30	1.90E-04	U	1.90E-04	2.00E-03	2.0E-04	3.9E-04				
MW1	56-55-3	SW8270C	9/9/2009	-20	-30	7.87E-04	U	7.87E-04	2.00E-03	2.0E-04	3.9E-04				
MW2	56-55-3	8270C	9/8/2009	-16	-28	1.90E-04	U	1.90E-04	2.00E-03	2.0E-04	3.9E-04				
MW2	56-55-3	SW8270C	9/8/2009	-16	-28	7.87E-04	U	7.87E-04	2.00E-03	2.0E-04	3.9E-04				
MW3	56-55-3	8270C	9/9/2009	-20	-30	1.90E-04	U	1.90E-04	2.00E-03	2.0E-04	3.9E-04				
MW3	56-55-3	SW8270C	9/9/2009	-20	-30	7.87E-04	U	7.87E-04	2.00E-03	2.0E-04	3.9E-04				
MW3F	56-55-3	8270C	9/9/2009	-20	-30	1.90E-04	U	1.90E-04	2.00E-03	2.0E-04	3.9E-04				
MW3F	56-55-3	SW8270C	9/9/2009	-20	-30	7.87E-04	U	7.87E-04	2.00E-03	2.0E-04	3.9E-04				

Benzo(a)pyrene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	50-32-8	8270C	9/8/2009	0	0	1.30E-04	U	1.30E-04	2.00E-03	2.0E-04	2.0E-04				
EQB1	50-32-8	SW8270C	9/8/2009	0	0	8.47E-04	U	8.47E-04	2.00E-03	2.0E-04	2.0E-04				
EQB2	50-32-8	SW8270C	9/9/2009	0	0	8.47E-04	U	8.47E-04	2.00E-03	2.0E-04	2.0E-04				
EQB2	50-32-8	8270C	9/9/2009	0	0	1.30E-04	U	1.30E-04	2.00E-03	2.0E-04	2.0E-04				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Benzo(a)pyrene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW1	50-32-8	8270C	9/9/2009	-20	-30	1.30E-04	U	1.30E-04	2.00E-03	2.0E-04	2.0E-04				
MW1	50-32-8	SW8270C	9/9/2009	-20	-30	8.47E-04	U	8.47E-04	2.00E-03	2.0E-04	2.0E-04				
MW2	50-32-8	8270C	9/8/2009	-16	-28	1.30E-04	U	1.30E-04	2.00E-03	2.0E-04	2.0E-04				
MW2	50-32-8	SW8270C	9/8/2009	-16	-28	8.47E-04	U	8.47E-04	2.00E-03	2.0E-04	2.0E-04				
MW3	50-32-8	8270C	9/9/2009	-20	-30	1.30E-04	U	1.30E-04	2.00E-03	2.0E-04	2.0E-04				
MW3	50-32-8	SW8270C	9/9/2009	-20	-30	8.47E-04	U	8.47E-04	2.00E-03	2.0E-04	2.0E-04				
MW3F	50-32-8	SW8270C	9/9/2009	-20	-30	8.47E-04	U	8.47E-04	2.00E-03	2.0E-04	2.0E-04				
MW3F	50-32-8	8270C	9/9/2009	-20	-30	1.30E-04	U	1.30E-04	2.00E-03	2.0E-04	2.0E-04				

Benzo(b)fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	205-99-2	SW8270C	9/8/2009	0	0	1.12E-03	U	1.12E-03	2.00E-03	2.0E-04	3.9E-04				
EQB1	205-99-2	8270C	9/8/2009	0	0	1.60E-04	U	1.60E-04	2.00E-03	2.0E-04	3.9E-04				
EQB2	205-99-2	8270C	9/9/2009	0	0	1.60E-04	U	1.60E-04	2.00E-03	2.0E-04	3.9E-04				
EQB2	205-99-2	SW8270C	9/9/2009	0	0	1.12E-03	U	1.12E-03	2.00E-03	2.0E-04	3.9E-04				
MW1	205-99-2	8270C	9/9/2009	-20	-30	1.60E-04	U	1.60E-04	2.00E-03	2.0E-04	3.9E-04				
MW1	205-99-2	SW8270C	9/9/2009	-20	-30	1.12E-03	U	1.12E-03	2.00E-03	2.0E-04	3.9E-04				
MW2	205-99-2	8270C	9/8/2009	-16	-28	1.60E-04	U	1.60E-04	2.00E-03	2.0E-04	3.9E-04				
MW2	205-99-2	SW8270C	9/8/2009	-16	-28	1.12E-03	U	1.12E-03	2.00E-03	2.0E-04	3.9E-04				
MW3	205-99-2	SW8270C	9/9/2009	-20	-30	1.12E-03	U	1.12E-03	2.00E-03	2.0E-04	3.9E-04				
MW3	205-99-2	8270C	9/9/2009	-20	-30	1.60E-04	U	1.60E-04	2.00E-03	2.0E-04	3.9E-04				
MW3F	205-99-2	SW8270C	9/9/2009	-20	-30	1.12E-03	U	1.12E-03	2.00E-03	2.0E-04	3.9E-04				
MW3F	205-99-2	8270C	9/9/2009	-20	-30	1.60E-04	U	1.60E-04	2.00E-03	2.0E-04	3.9E-04				

Benzo(g,h,i)perylene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	191-24-2	SW8270C	9/8/2009	0	0	1.17E-03	U	1.17E-03	2.00E-03	1.1E+00	3.1E+00				
EQB2	191-24-2	SW8270C	9/9/2009	0	0	1.17E-03	U	1.17E-03	2.00E-03	1.1E+00	3.1E+00				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Benzo(g,h,i)perylene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW1	191-24-2	SW8270C	9/9/2009	-20	-30	1.17E-03	U	1.17E-03	2.00E-03	1.1E+00	3.1E+00				
MW2	191-24-2	SW8270C	9/8/2009	-16	-28	1.17E-03	U	1.17E-03	2.00E-03	1.1E+00	3.1E+00				
MW3	191-24-2	SW8270C	9/9/2009	-20	-30	1.17E-03	U	1.17E-03	2.00E-03	1.1E+00	3.1E+00				
MW3F	191-24-2	SW8270C	9/9/2009	-20	-30	1.17E-03	U	1.17E-03	2.00E-03	1.1E+00	3.1E+00				

Benzo(k)fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	207-08-9	SW8270C	9/8/2009	0	0	1.16E-03	U	1.16E-03	2.00E-03	1.2E-03	3.9E-03				
EQB2	207-08-9	SW8270C	9/9/2009	0	0	1.16E-03	U	1.16E-03	2.00E-03	1.2E-03	3.9E-03				
MW1	207-08-9	SW8270C	9/9/2009	-20	-30	1.16E-03	U	1.16E-03	2.00E-03	1.2E-03	3.9E-03				
MW2	207-08-9	SW8270C	9/8/2009	-16	-28	1.16E-03	U	1.16E-03	2.00E-03	1.2E-03	3.9E-03				
MW3	207-08-9	SW8270C	9/9/2009	-20	-30	1.16E-03	U	1.16E-03	2.00E-03	1.2E-03	3.9E-03				
MW3F	207-08-9	SW8270C	9/9/2009	-20	-30	1.16E-03	U	1.16E-03	2.00E-03	1.2E-03	3.9E-03				

Benzoic acid

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	65-85-0	SW8270C	9/8/2009	0	0	2.49E-03	U	2.49E-03	2.00E-03	1.5E+02	4.1E+02				
EQB2	65-85-0	SW8270C	9/9/2009	0	0	2.49E-03	U	2.49E-03	2.00E-03	1.5E+02	4.1E+02				
MW1	65-85-0	SW8270C	9/9/2009	-20	-30	2.49E-03	U	2.49E-03	2.00E-03	1.5E+02	4.1E+02				
MW2	65-85-0	SW8270C	9/8/2009	-16	-28	2.49E-03	U	2.49E-03	2.00E-03	1.5E+02	4.1E+02				
MW3	65-85-0	SW8270C	9/9/2009	-20	-30	2.49E-03	U	2.49E-03	2.00E-03	1.5E+02	4.1E+02				
MW3F	65-85-0	SW8270C	9/9/2009	-20	-30	2.49E-03	U	2.49E-03	2.00E-03	1.5E+02	4.1E+02				

Benzyl alcohol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	100-51-6	SW8270C	9/8/2009	0	0	1.27E-03	U	1.27E-03	2.00E-03	1.1E+01	3.1E+01				
EQB2	100-51-6	SW8270C	9/9/2009	0	0	1.27E-03	U	1.27E-03	2.00E-03	1.1E+01	3.1E+01				
MW1	100-51-6	SW8270C	9/9/2009	-20	-30	1.27E-03	U	1.27E-03	2.00E-03	1.1E+01	3.1E+01				
MW2	100-51-6	SW8270C	9/8/2009	-16	-28	1.27E-03	U	1.27E-03	2.00E-03	1.1E+01	3.1E+01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Benzyl alcohol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3	100-51-6	SW8270C	9/9/2009	-20	-30	1.27E-03	U	1.27E-03	2.00E-03	1.1E+01	3.1E+01				
MW3F	100-51-6	SW8270C	9/9/2009	-20	-30	1.27E-03	U	1.27E-03	2.00E-03	1.1E+01	3.1E+01				

Beryllium

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-41-7	SW6010B	9/8/2009	0	0	8.00E-04	U	8.00E-04	2.00E+00	4.0E-03	4.0E-03				
EQB2	7440-41-7	SW6010B	9/9/2009	0	0	8.00E-04	U	8.00E-04	2.00E+00	4.0E-03	4.0E-03				
MW1	7440-41-7	SW6010B	9/9/2009	-20	-30	8.00E-04	U	8.00E-04	2.00E+00	4.0E-03	4.0E-03				
MW2	7440-41-7	SW6010B	9/8/2009	-16	-28	8.00E-04	U	8.00E-04	2.00E+00	4.0E-03	4.0E-03				
MW2F	7440-41-7	SW6010B	9/8/2009	-16	-28	8.00E-04	U	8.00E-04	2.00E+00	4.0E-03	4.0E-03				
MW3	7440-41-7	SW6010B	9/9/2009	-20	-30	8.00E-04	U	8.00E-04	2.00E+00	4.0E-03	4.0E-03				
MW3F	7440-41-7	SW6010B	9/9/2009	-20	-30	8.00E-04	U	8.00E-04	2.00E+00	4.0E-03	4.0E-03				

Bis(2-chloroethoxy)methane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	111-91-1	SW8270C	9/8/2009	0	0	8.22E-04	U	8.22E-04	2.00E-03	7.7E-05	2.6E-04				
EQB1	111-91-1	8270C	9/8/2009	0	0	6.80E-05	U	6.80E-05	2.00E-03	7.7E-05	2.6E-04				
EQB2	111-91-1	8270C	9/9/2009	0	0	6.80E-05	U	6.80E-05	2.00E-03	7.7E-05	2.6E-04				
EQB2	111-91-1	SW8270C	9/9/2009	0	0	8.22E-04	U	8.22E-04	2.00E-03	7.7E-05	2.6E-04				
MW1	111-91-1	8270C	9/9/2009	-20	-30	6.80E-05	U	6.80E-05	2.00E-03	7.7E-05	2.6E-04				
MW1	111-91-1	SW8270C	9/9/2009	-20	-30	8.22E-04	U	8.22E-04	2.00E-03	7.7E-05	2.6E-04				
MW2	111-91-1	8270C	9/8/2009	-16	-28	6.80E-05	U	6.80E-05	2.00E-03	7.7E-05	2.6E-04				
MW2	111-91-1	SW8270C	9/8/2009	-16	-28	8.22E-04	U	8.22E-04	2.00E-03	7.7E-05	2.6E-04				
MW3	111-91-1	SW8270C	9/9/2009	-20	-30	8.22E-04	U	8.22E-04	2.00E-03	7.7E-05	2.6E-04				
MW3	111-91-1	8270C	9/9/2009	-20	-30	6.80E-05	U	6.80E-05	2.00E-03	7.7E-05	2.6E-04				
MW3F	111-91-1	8270C	9/9/2009	-20	-30	6.80E-05	U	6.80E-05	2.00E-03	7.7E-05	2.6E-04				
MW3F	111-91-1	SW8270C	9/9/2009	-20	-30	8.22E-04	U	8.22E-04	2.00E-03	7.7E-05	2.6E-04				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Bis(2-chloroethyl)ether

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	111-44-4	8270C	9/8/2009	0	0	7.20E-05	U	7.20E-05	2.00E-03	7.7E-05	2.6E-04				
EQB1	111-44-4	SW8270C	9/8/2009	0	0	5.55E-04	U	5.55E-04	2.00E-03	7.7E-05	2.6E-04				
EQB2	111-44-4	8270C	9/9/2009	0	0	7.20E-05	U	7.20E-05	2.00E-03	7.7E-05	2.6E-04				
EQB2	111-44-4	SW8270C	9/9/2009	0	0	5.55E-04	U	5.55E-04	2.00E-03	7.7E-05	2.6E-04				
MW1	111-44-4	SW8270C	9/9/2009	-20	-30	5.55E-04	U	5.55E-04	2.00E-03	7.7E-05	2.6E-04				
MW1	111-44-4	8270C	9/9/2009	-20	-30	7.20E-05	U	7.20E-05	2.00E-03	7.7E-05	2.6E-04				
MW2	111-44-4	8270C	9/8/2009	-16	-28	7.20E-05	U	7.20E-05	2.00E-03	7.7E-05	2.6E-04				
MW2	111-44-4	SW8270C	9/8/2009	-16	-28	5.55E-04	U	5.55E-04	2.00E-03	7.7E-05	2.6E-04				
MW3	111-44-4	8270C	9/9/2009	-20	-30	7.20E-05	U	7.20E-05	2.00E-03	7.7E-05	2.6E-04				
MW3	111-44-4	SW8270C	9/9/2009	-20	-30	5.55E-04	U	5.55E-04	2.00E-03	7.7E-05	2.6E-04				
MW3F	111-44-4	8270C	9/9/2009	-20	-30	7.20E-05	U	7.20E-05	2.00E-03	7.7E-05	2.6E-04				
MW3F	111-44-4	SW8270C	9/9/2009	-20	-30	5.55E-04	U	5.55E-04	2.00E-03	7.7E-05	2.6E-04				

Bis(2-chloroisopropyl)ether

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	108-60-1	SW8270C	9/8/2009	0	0	6.07E-04	U	6.07E-04	2.00E-03	1.2E-02	4.1E-02				
EQB2	108-60-1	SW8270C	9/9/2009	0	0	6.07E-04	U	6.07E-04	2.00E-03	1.2E-02	4.1E-02				
MW1	108-60-1	SW8270C	9/9/2009	-20	-30	6.07E-04	U	6.07E-04	2.00E-03	1.2E-02	4.1E-02				
MW2	108-60-1	SW8270C	9/8/2009	-16	-28	6.07E-04	U	6.07E-04	2.00E-03	1.2E-02	4.1E-02				
MW3	108-60-1	SW8270C	9/9/2009	-20	-30	6.07E-04	U	6.07E-04	2.00E-03	1.2E-02	4.1E-02				
MW3F	108-60-1	SW8270C	9/9/2009	-20	-30	6.07E-04	U	6.07E-04	2.00E-03	1.2E-02	4.1E-02				

Bis(2-ethylhexyl)phthalate

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	117-81-7	SW8270C	9/8/2009	0	0	2.58E-03	U	2.58E-03	2.00E-03	6.0E-03	6.0E-03				
EQB2	117-81-7	SW8270C	9/9/2009	0	0	2.58E-03	U	2.58E-03	2.00E-03	6.0E-03	6.0E-03				
MW1	117-81-7	SW8270C	9/9/2009	-20	-30	2.58E-03	U	2.58E-03	2.00E-03	6.0E-03	6.0E-03				
MW2	117-81-7	SW8270C	9/8/2009	-16	-28	2.58E-03	U	2.58E-03	2.00E-03	6.0E-03	6.0E-03				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Bis(2-ethylhexyl)phthalate

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3	117-81-7	SW8270C	9/9/2009	-20	-30	2.58E-03	U	2.58E-03	2.00E-03	6.0E-03	6.0E-03				
MW3F	117-81-7	SW8270C	9/9/2009	-20	-30	2.58E-03	U	2.58E-03	2.00E-03	6.0E-03	6.0E-03				

Bromobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	108-86-1	SW8260B	9/8/2009	0	0	1.00E-03	U	1.00E-03	2.00E-03	7.3E-01	2.0E+00				
EQB2	108-86-1	SW8260B	9/9/2009	0	0	1.00E-03	U	1.00E-03	2.00E-03	7.3E-01	2.0E+00				
MW1	108-86-1	SW8260B	9/9/2009	-20	-30	1.00E-03	U	1.00E-03	2.00E-03	7.3E-01	2.0E+00				
MW2	108-86-1	SW8260B	9/8/2009	-16	-28	1.00E-03	U	1.00E-03	2.00E-03	7.3E-01	2.0E+00				
MW3	108-86-1	SW8260B	9/9/2009	-20	-30	1.00E-03	U	1.00E-03	2.00E-03	7.3E-01	2.0E+00				
MW3F	108-86-1	SW8260B	9/9/2009	-20	-30	1.00E-03	U	1.00E-03	2.00E-03	7.3E-01	2.0E+00				
TB	108-86-1	SW-846 8260B	9/8/2009	0	0	1.86E-04	U	1.86E-04	1.00E-03	7.3E-01	2.0E+00				
TB	108-86-1	SW8260B	9/8/2009	0	0	1.00E-03	U	1.00E-03	2.00E-03	7.3E-01	2.0E+00				
TB1	108-86-1	SW8260B	11/9/2009	0	0	5.51E-04	U	5.51E-04	5.00E-03	7.3E-01	2.0E+00				

Bromochloromethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	74-97-5	SW8260B	9/8/2009	0	0	1.45E-03	U	1.45E-03	2.00E-03	1.5E+00	4.1E+00				
EQB2	74-97-5	SW8260B	9/9/2009	0	0	1.45E-03	U	1.45E-03	2.00E-03	1.5E+00	4.1E+00				
MW1	74-97-5	SW8260B	9/9/2009	-20	-30	1.45E-03	U	1.45E-03	2.00E-03	1.5E+00	4.1E+00				
MW2	74-97-5	SW8260B	9/8/2009	-16	-28	1.45E-03	U	1.45E-03	2.00E-03	1.5E+00	4.1E+00				
MW3	74-97-5	SW8260B	9/9/2009	-20	-30	1.45E-03	U	1.45E-03	2.00E-03	1.5E+00	4.1E+00				
MW3F	74-97-5	SW8260B	9/9/2009	-20	-30	1.45E-03	U	1.45E-03	2.00E-03	1.5E+00	4.1E+00				
TB	74-97-5	SW8260B	9/8/2009	0	0	1.45E-03	U	1.45E-03	2.00E-03	1.5E+00	4.1E+00				
TB	74-97-5	SW-846 8260B	9/8/2009	0	0	2.34E-04	U	2.34E-04	1.00E-03	1.5E+00	4.1E+00				
TB1	74-97-5	SW8260B	11/9/2009	0	0	8.44E-04	U	8.44E-04	5.00E-03	1.5E+00	4.1E+00				

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Bromodichloromethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	75-27-4	SW8260B	9/8/2009	0	0	1.61E-03	U	1.61E-03	2.00E-03	1.4E-03	4.6E-03				
EQB1 R	75-27-4	SW8260B	9/8/2009	0	0	9.91E-04	U	9.91E-04	5.00E-03	1.4E-03	4.6E-03				
EQB2	75-27-4	SW8260B	9/9/2009	0	0	1.61E-03	U	1.61E-03	2.00E-03	1.4E-03	4.6E-03				
EQB2 R	75-27-4	SW8260B	9/9/2009	0	0	9.91E-04	U	9.91E-04	5.00E-03	1.4E-03	4.6E-03				
MW1	75-27-4	SW8260B	9/9/2009	-20	-30	1.61E-03	U	1.61E-03	2.00E-03	1.4E-03	4.6E-03				
MW1 R	75-27-4	SW8260B	9/9/2009	-20	-30	9.91E-04	U	9.91E-04	5.00E-03	1.4E-03	4.6E-03				
MW2	75-27-4	SW8260B	9/8/2009	-16	-28	1.61E-03	U	1.61E-03	2.00E-03	1.4E-03	4.6E-03				
MW2 R	75-27-4	SW8260B	9/8/2009	-16	-28	9.91E-04	U	9.91E-04	5.00E-03	1.4E-03	4.6E-03				
MW3	75-27-4	SW8260B	9/9/2009	-20	-30	1.61E-03	U	1.61E-03	2.00E-03	1.4E-03	4.6E-03				
MW3 R	75-27-4	SW8260B	9/9/2009	-20	-30	9.91E-04	U	9.91E-04	5.00E-03	1.4E-03	4.6E-03				
MW3F	75-27-4	SW8260B	9/9/2009	-20	-30	1.61E-03	U	1.61E-03	2.00E-03	1.4E-03	4.6E-03				
MW3F R	75-27-4	SW8260B	9/9/2009	-20	-30	9.91E-04	U	9.91E-04	5.00E-03	1.4E-03	4.6E-03				
TB	75-27-4	SW-846 8260B	9/8/2009	0	0	8.70E-05	U	8.70E-05	1.00E-03	1.4E-03	4.6E-03				
TB	75-27-4	SW8260B	9/8/2009	0	0	1.61E-03	U	1.61E-03	2.00E-03	1.4E-03	4.6E-03				
TB R	75-27-4	SW8260B	9/8/2009	0	0	9.91E-04	U	9.91E-04	5.00E-03	1.4E-03	4.6E-03				
TB1	75-27-4	SW8260B	11/9/2009	0	0	9.91E-04	U	9.91E-04	5.00E-03	1.4E-03	4.6E-03				

Bromoform

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	75-25-2	SW8260B	9/8/2009	0	0	1.47E-03	U	1.47E-03	2.00E-03	1.1E-02	3.6E-02				
EQB2	75-25-2	SW8260B	9/9/2009	0	0	1.47E-03	U	1.47E-03	2.00E-03	1.1E-02	3.6E-02				
MW1	75-25-2	SW8260B	9/9/2009	-20	-30	1.47E-03	U	1.47E-03	2.00E-03	1.1E-02	3.6E-02				
MW2	75-25-2	SW8260B	9/8/2009	-16	-28	1.47E-03	U	1.47E-03	2.00E-03	1.1E-02	3.6E-02				
MW3	75-25-2	SW8260B	9/9/2009	-20	-30	1.47E-03	U	1.47E-03	2.00E-03	1.1E-02	3.6E-02				
MW3F	75-25-2	SW8260B	9/9/2009	-20	-30	1.47E-03	U	1.47E-03	2.00E-03	1.1E-02	3.6E-02				
TB	75-25-2	SW-846 8260B	9/8/2009	0	0	1.25E-03	U	1.25E-03	2.00E-03	1.1E-02	3.6E-02				
TB	75-25-2	SW8260B	9/8/2009	0	0	1.47E-03	U	1.47E-03	2.00E-03	1.1E-02	3.6E-02				
TB1	75-25-2	SW8260B	11/9/2009	0	0	7.74E-04	U	7.74E-04	5.00E-03	1.1E-02	3.6E-02				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Bromomethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	74-83-9	SW8260B	9/8/2009	0	0	2.53E-03	U	2.53E-03	2.00E-03	5.1E-02	1.4E-01				
EQB2	74-83-9	SW8260B	9/9/2009	0	0	2.53E-03	U	2.53E-03	2.00E-03	5.1E-02	1.4E-01				
MW1	74-83-9	SW8260B	9/9/2009	-20	-30	2.53E-03	U	2.53E-03	2.00E-03	5.1E-02	1.4E-01				
MW2	74-83-9	SW8260B	9/8/2009	-16	-28	2.53E-03	U	2.53E-03	2.00E-03	5.1E-02	1.4E-01				
MW3	74-83-9	SW8260B	9/9/2009	-20	-30	2.53E-03	U	2.53E-03	2.00E-03	5.1E-02	1.4E-01				
MW3F	74-83-9	SW8260B	9/9/2009	-20	-30	2.53E-03	U	2.53E-03	2.00E-03	5.1E-02	1.4E-01				
TB	74-83-9	SW8260B	9/8/2009	0	0	2.53E-03	U	2.53E-03	2.00E-03	5.1E-02	1.4E-01				
TB1	74-83-9	SW8260B	11/9/2009	0	0	9.83E-04	U	9.83E-04	5.00E-03	5.1E-02	1.4E-01				

Bromomethane (Methyl Bromi

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB	74-83-9	SW-846 8260B	9/8/2009	0	0	2.67E-04	U	2.67E-04	1.00E-03	5.1E-02	1.4E-01				

Butyl benzyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	85-68-7	SW8270C	9/8/2009	0	0	2.25E-03	U	2.25E-03	2.00E-03	7.3E+00	2.0E+01				
EQB2	85-68-7	SW8270C	9/9/2009	0	0	2.25E-03	U	2.25E-03	2.00E-03	7.3E+00	2.0E+01				
MW1	85-68-7	SW8270C	9/9/2009	-20	-30	2.25E-03	U	2.25E-03	2.00E-03	7.3E+00	2.0E+01				
MW2	85-68-7	SW8270C	9/8/2009	-16	-28	2.25E-03	U	2.25E-03	2.00E-03	7.3E+00	2.0E+01				
MW3	85-68-7	SW8270C	9/9/2009	-20	-30	2.25E-03	U	2.25E-03	2.00E-03	7.3E+00	2.0E+01				
MW3F	85-68-7	SW8270C	9/9/2009	-20	-30	2.25E-03	U	2.25E-03	2.00E-03	7.3E+00	2.0E+01				

Cadmium

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-43-9	SW6010B	9/8/2009	0	0	8.00E-04	U	8.00E-04	2.00E+00	5.0E-03	5.0E-03	1.62E-03	8.67E-04	5.10E-03	2.29E-03
EQB2	7440-43-9	SW6010B	9/9/2009	0	0	8.00E-04	U	8.00E-04	2.00E+00	5.0E-03	5.0E-03	1.62E-03	8.67E-04	5.10E-03	2.29E-03
MW1	7440-43-9	SW6010B	9/9/2009	-20	-30	8.00E-04	U	8.00E-04	2.00E+00	5.0E-03	5.0E-03	1.62E-03	8.67E-04	5.10E-03	2.29E-03
MW2	7440-43-9	SW6010B	9/8/2009	-16	-28	6.00E-03		8.00E-04	2.00E+00	5.0E-03	5.0E-03	1.62E-03	8.67E-04	5.10E-03	2.29E-03
MW2F	7440-43-9	SW6010B	9/8/2009	-16	-28	8.00E-04	U	8.00E-04	2.00E+00	5.0E-03	5.0E-03	1.62E-03	8.67E-04	5.10E-03	2.29E-03

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Cadmium

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3	7440-43-9	SW6010B	9/9/2009	-20	-30	8.00E-04	U	8.00E-04	2.00E+00	5.0E-03	5.0E-03	1.62E-03	8.67E-04	5.10E-03	2.29E-03
MW3F	7440-43-9	SW6010B	9/9/2009	-20	-30	8.00E-04	U	8.00E-04	2.00E+00	5.0E-03	5.0E-03	1.62E-03	8.67E-04	5.10E-03	2.29E-03

Calcium

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-70-2	SW6010B	9/8/2009	0	0	5.00E-01		1.24E-02	2.00E+00			2.03E+02	2.04E+02	3.01E+02	3.02E+02
EQB2	7440-70-2	SW6010B	9/9/2009	0	0	4.00E-01		1.24E-02	2.00E+00			2.03E+02	2.04E+02	3.01E+02	3.02E+02
MW1	7440-70-2	SW6010B	9/9/2009	-20	-30	3.30E+02		1.24E-02	2.00E+00			2.03E+02	2.04E+02	3.01E+02	3.02E+02
MW2	7440-70-2	SW6010B	9/8/2009	-16	-28	4.10E+02		1.24E-02	2.00E+00			2.03E+02	2.04E+02	3.01E+02	3.02E+02
MW2F	7440-70-2	SW6010B	9/8/2009	-16	-28	4.02E+02		1.24E-02	2.00E+00			2.03E+02	2.04E+02	3.01E+02	3.02E+02
MW3	7440-70-2	SW6010B	9/9/2009	-20	-30	3.04E+02		1.24E-02	2.00E+00			2.03E+02	2.04E+02	3.01E+02	3.02E+02
MW3F	7440-70-2	SW6010B	9/9/2009	-20	-30	2.54E+02		1.24E-02	2.00E+00			2.03E+02	2.04E+02	3.01E+02	3.02E+02

Carbazole

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	86-74-8	SW8270C	9/8/2009	0	0	1.55E-03	U	1.55E-03	2.00E-03	4.3E-03	1.4E-02				
EQB2	86-74-8	SW8270C	9/9/2009	0	0	1.55E-03	U	1.55E-03	2.00E-03	4.3E-03	1.4E-02				
MW1	86-74-8	SW8270C	9/9/2009	-20	-30	1.55E-03	U	1.55E-03	2.00E-03	4.3E-03	1.4E-02				
MW2	86-74-8	SW8270C	9/8/2009	-16	-28	1.55E-03	U	1.55E-03	2.00E-03	4.3E-03	1.4E-02				
MW3	86-74-8	SW8270C	9/9/2009	-20	-30	1.55E-03	U	1.55E-03	2.00E-03	4.3E-03	1.4E-02				
MW3F	86-74-8	SW8270C	9/9/2009	-20	-30	1.55E-03	U	1.55E-03	2.00E-03	4.3E-03	1.4E-02				

Carbon disulfide

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	75-15-0	SW8260B	9/8/2009	0	0	1.25E-03	U	1.25E-03	2.00E-03	3.6E+00	1.0E+01				
EQB2	75-15-0	SW8260B	9/9/2009	0	0	1.25E-03	U	1.25E-03	2.00E-03	3.6E+00	1.0E+01				
MW1	75-15-0	SW8260B	9/9/2009	-20	-30	1.25E-03	U	1.25E-03	2.00E-03	3.6E+00	1.0E+01				
MW2	75-15-0	SW8260B	9/8/2009	-16	-28	1.25E-03	U	1.25E-03	2.00E-03	3.6E+00	1.0E+01				
MW3	75-15-0	SW8260B	9/9/2009	-20	-30	1.25E-03	U	1.25E-03	2.00E-03	3.6E+00	1.0E+01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Carbon disulfide

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3F	75-15-0	SW8260B	9/9/2009	-20	-30	1.25E-03	U	1.25E-03	2.00E-03	3.6E+00	1.0E+01				
TB	75-15-0	SW8260B	9/8/2009	0	0	1.25E-03	U	1.25E-03	2.00E-03	3.6E+00	1.0E+01				
TB1	75-15-0	SW8260B	11/9/2009	0	0	1.25E-03	U	1.25E-03	5.00E-03	3.6E+00	1.0E+01				

Carbon tetrachloride

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	56-23-5	SW8260B	9/8/2009	0	0	1.72E-03	U	1.72E-03	2.00E-03	5.0E-03	5.0E-03				
EQB2	56-23-5	SW8260B	9/9/2009	0	0	1.72E-03	U	1.72E-03	2.00E-03	5.0E-03	5.0E-03				
MW1	56-23-5	SW8260B	9/9/2009	-20	-30	1.72E-03	U	1.72E-03	2.00E-03	5.0E-03	5.0E-03				
MW2	56-23-5	SW8260B	9/8/2009	-16	-28	1.72E-03	U	1.72E-03	2.00E-03	5.0E-03	5.0E-03				
MW3	56-23-5	SW8260B	9/9/2009	-20	-30	1.72E-03	U	1.72E-03	2.00E-03	5.0E-03	5.0E-03				
MW3F	56-23-5	SW8260B	9/9/2009	-20	-30	1.72E-03	U	1.72E-03	2.00E-03	5.0E-03	5.0E-03				
TB	56-23-5	SW8260B	9/8/2009	0	0	1.72E-03	U	1.72E-03	2.00E-03	5.0E-03	5.0E-03				
TB	56-23-5	SW-846 8260B	9/8/2009	0	0	3.66E-04	U	3.66E-04	1.00E-03	5.0E-03	5.0E-03				
TB1	56-23-5	SW8260B	11/9/2009	0	0	1.72E-03	U	1.72E-03	5.00E-03	5.0E-03	5.0E-03				

Chlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	108-90-7	SW8260B	9/8/2009	0	0	1.40E-03	U	1.40E-03	2.00E-03	1.0E-01	1.0E-01				
EQB2	108-90-7	SW8260B	9/9/2009	0	0	1.40E-03	U	1.40E-03	2.00E-03	1.0E-01	1.0E-01				
MW1	108-90-7	SW8260B	9/9/2009	-20	-30	1.40E-03	U	1.40E-03	2.00E-03	1.0E-01	1.0E-01				
MW2	108-90-7	SW8260B	9/8/2009	-16	-28	1.40E-03	U	1.40E-03	2.00E-03	1.0E-01	1.0E-01				
MW3	108-90-7	SW8260B	9/9/2009	-20	-30	1.40E-03	U	1.40E-03	2.00E-03	1.0E-01	1.0E-01				
MW3F	108-90-7	SW8260B	9/9/2009	-20	-30	1.40E-03	U	1.40E-03	2.00E-03	1.0E-01	1.0E-01				
TB	108-90-7	SW8260B	9/8/2009	0	0	1.40E-03	U	1.40E-03	2.00E-03	1.0E-01	1.0E-01				
TB	108-90-7	SW-846 8260B	9/8/2009	0	0	1.14E-04	U	1.14E-04	1.00E-03	1.0E-01	1.0E-01				
TB1	108-90-7	SW8260B	11/9/2009	0	0	5.30E-04	U	5.30E-04	5.00E-03	1.0E-01	1.0E-01				

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Chloroethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	75-00-3	SW8260B	9/8/2009	0	0	2.14E-03	U	2.14E-03	2.00E-03	1.5E+01	4.1E+01				
EQB2	75-00-3	SW8260B	9/9/2009	0	0	2.14E-03	U	2.14E-03	2.00E-03	1.5E+01	4.1E+01				
MW1	75-00-3	SW8260B	9/9/2009	-20	-30	2.14E-03	U	2.14E-03	2.00E-03	1.5E+01	4.1E+01				
MW2	75-00-3	SW8260B	9/8/2009	-16	-28	2.14E-03	U	2.14E-03	2.00E-03	1.5E+01	4.1E+01				
MW3	75-00-3	SW8260B	9/9/2009	-20	-30	2.14E-03	U	2.14E-03	2.00E-03	1.5E+01	4.1E+01				
MW3F	75-00-3	SW8260B	9/9/2009	-20	-30	2.14E-03	U	2.14E-03	2.00E-03	1.5E+01	4.1E+01				
TB	75-00-3	SW-846 8260B	9/8/2009	0	0	1.78E-04	U	1.78E-04	1.00E-03	1.5E+01	4.1E+01				
TB	75-00-3	SW8260B	9/8/2009	0	0	2.14E-03	U	2.14E-03	2.00E-03	1.5E+01	4.1E+01				
TB1	75-00-3	SW8260B	11/9/2009	0	0	1.66E-03	U	1.66E-03	5.00E-03	1.5E+01	4.1E+01				

Chloroform

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	67-66-3	SW8260B	9/8/2009	0	0	2.35E-03	U	2.35E-03	2.00E-03	3.6E-01	1.0E+00				
EQB2	67-66-3	SW8260B	9/9/2009	0	0	2.35E-03	U	2.35E-03	2.00E-03	3.6E-01	1.0E+00				
MW1	67-66-3	SW8260B	9/9/2009	-20	-30	2.35E-03	U	2.35E-03	2.00E-03	3.6E-01	1.0E+00				
MW2	67-66-3	SW8260B	9/8/2009	-16	-28	2.35E-03	U	2.35E-03	2.00E-03	3.6E-01	1.0E+00				
MW3	67-66-3	SW8260B	9/9/2009	-20	-30	2.35E-03	U	2.35E-03	2.00E-03	3.6E-01	1.0E+00				
MW3F	67-66-3	SW8260B	9/9/2009	-20	-30	2.35E-03	U	2.35E-03	2.00E-03	3.6E-01	1.0E+00				
TB	67-66-3	SW-846 8260B	9/8/2009	0	0	1.70E-04	U	1.70E-04	1.00E-03	3.6E-01	1.0E+00				
TB	67-66-3	SW8260B	9/8/2009	0	0	2.35E-03	U	2.35E-03	2.00E-03	3.6E-01	1.0E+00				
TB1	67-66-3	SW8260B	11/9/2009	0	0	1.45E-03	U	1.45E-03	5.00E-03	3.6E-01	1.0E+00				

Chloromethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	74-87-3	SW8260B	9/8/2009	0	0	2.44E-03	U	2.44E-03	2.00E-03	6.6E-02	2.2E-01				
EQB2	74-87-3	SW8260B	9/9/2009	0	0	2.44E-03	U	2.44E-03	2.00E-03	6.6E-02	2.2E-01				
MW1	74-87-3	SW8260B	9/9/2009	-20	-30	2.44E-03	U	2.44E-03	2.00E-03	6.6E-02	2.2E-01				
MW2	74-87-3	SW8260B	9/8/2009	-16	-28	2.44E-03	U	2.44E-03	2.00E-03	6.6E-02	2.2E-01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Chloromethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3	74-87-3	SW8260B	9/9/2009	-20	-30	2.44E-03	U	2.44E-03	2.00E-03	6.6E-02	2.2E-01				
MW3F	74-87-3	SW8260B	9/9/2009	-20	-30	2.44E-03	U	2.44E-03	2.00E-03	6.6E-02	2.2E-01				
TB	74-87-3	SW-846 8260B	9/8/2009	0	0	2.18E-04	U	2.18E-04	1.00E-03	6.6E-02	2.2E-01				
TB	74-87-3	SW8260B	9/8/2009	0	0	2.44E-03	U	2.44E-03	2.00E-03	6.6E-02	2.2E-01				
TB1	74-87-3	SW8260B	11/9/2009	0	0	8.10E-04	U	8.10E-04	5.00E-03	6.6E-02	2.2E-01				

Chromium

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-47-3	SW6010B	9/8/2009	0	0	3.50E-03	U	3.50E-03	2.00E+00	1.0E-01	1.0E-01				
EQB2	7440-47-3	SW6010B	9/9/2009	0	0	3.50E-03	U	3.50E-03	2.00E+00	1.0E-01	1.0E-01				
MW1	7440-47-3	SW6010B	9/9/2009	-20	-30	3.50E-03	U	3.50E-03	2.00E+00	1.0E-01	1.0E-01				
MW2	7440-47-3	SW6010B	9/8/2009	-16	-28	3.50E-03	U	3.50E-03	2.00E+00	1.0E-01	1.0E-01				
MW2F	7440-47-3	SW6010B	9/8/2009	-16	-28	3.50E-03	U	3.50E-03	2.00E+00	1.0E-01	1.0E-01				
MW3	7440-47-3	SW6010B	9/9/2009	-20	-30	3.50E-03	U	3.50E-03	2.00E+00	1.0E-01	1.0E-01				
MW3F	7440-47-3	SW6010B	9/9/2009	-20	-30	3.50E-03	U	3.50E-03	2.00E+00	1.0E-01	1.0E-01				

Chromium, Hexavalent

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	18540-29-9	SW7196A	9/8/2009	0	0	3.40E-03	U	3.40E-03	2.00E+00	1.0E-01	1.0E-01				
EQB2	18540-29-9	SW7196A	9/9/2009	0	0	3.40E-03	U	3.40E-03	2.00E+00	1.0E-01	1.0E-01				
MW1	18540-29-9	SW7196A	9/9/2009	-20	-30	3.40E-03	U	3.40E-03	2.00E+00	1.0E-01	1.0E-01				
MW2	18540-29-9	SW7196A	9/8/2009	-16	-28	3.40E-03	U	3.40E-03	2.00E+00	1.0E-01	1.0E-01				
MW2F	18540-29-9	SW7196A	9/8/2009	-16	-28	3.40E-03	U	3.40E-03	2.00E+00	1.0E-01	1.0E-01				
MW3	18540-29-9	SW7196A	9/9/2009	-20	-30	3.40E-03	U	3.40E-03	2.00E+00	1.0E-01	1.0E-01				
MW3F	18540-29-9	SW7196A	9/9/2009	-20	-30	3.40E-03	U	3.40E-03	2.00E+00	1.0E-01	1.0E-01				

Chrysene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	218-01-9	SW8270C	9/8/2009	0	0	8.26E-04	U	8.26E-04	2.00E-03	1.2E-02	3.9E-02				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Chrysene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB2	218-01-9	SW8270C	9/9/2009	0	0	8.26E-04	U	8.26E-04	2.00E-03	1.2E-02	3.9E-02				
MW1	218-01-9	SW8270C	9/9/2009	-20	-30	8.26E-04	U	8.26E-04	2.00E-03	1.2E-02	3.9E-02				
MW2	218-01-9	SW8270C	9/8/2009	-16	-28	8.26E-04	U	8.26E-04	2.00E-03	1.2E-02	3.9E-02				
MW3	218-01-9	SW8270C	9/9/2009	-20	-30	8.26E-04	U	8.26E-04	2.00E-03	1.2E-02	3.9E-02				
MW3F	218-01-9	SW8270C	9/9/2009	-20	-30	8.26E-04	U	8.26E-04	2.00E-03	1.2E-02	3.9E-02				

cis-1,2-Dichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	156-59-2	SW8260B	9/8/2009	0	0	1.80E-03	U	1.80E-03	2.00E-03	7.0E-02	7.0E-02				
EQB2	156-59-2	SW8260B	9/9/2009	0	0	1.80E-03	U	1.80E-03	2.00E-03	7.0E-02	7.0E-02				
MW1	156-59-2	SW8260B	9/9/2009	-20	-30	1.80E-03	U	1.80E-03	2.00E-03	7.0E-02	7.0E-02				
MW2	156-59-2	SW8260B	9/8/2009	-16	-28	1.80E-03	U	1.80E-03	2.00E-03	7.0E-02	7.0E-02				
MW3	156-59-2	SW8260B	9/9/2009	-20	-30	1.80E-03	U	1.80E-03	2.00E-03	7.0E-02	7.0E-02				
MW3F	156-59-2	SW8260B	9/9/2009	-20	-30	1.80E-03	U	1.80E-03	2.00E-03	7.0E-02	7.0E-02				
TB	156-59-2	SW8260B	9/8/2009	0	0	1.80E-03	U	1.80E-03	2.00E-03	7.0E-02	7.0E-02				
TB	156-59-2	SW-846 8260B	9/8/2009	0	0	1.96E-04	U	1.96E-04	1.00E-03	7.0E-02	7.0E-02				
TB1	156-59-2	SW8260B	11/9/2009	0	0	1.80E-03	U	1.80E-03	5.00E-03	7.0E-02	7.0E-02				

cis-1,3-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	10061-01-5	SW8260B	9/8/2009	0	0	1.29E-03	U	1.29E-03	2.00E-03	1.6E-03	5.3E-03				
EQB1	10061-01-5	SW8260B	9/8/2009	0	0	4.20E-04	U	4.20E-04	2.00E-03	1.6E-03	5.3E-03				
EQB2	10061-01-5	SW8260B	9/9/2009	0	0	4.20E-04	U	4.20E-04	2.00E-03	1.6E-03	5.3E-03				
EQB2	10061-01-5	SW8260B	9/9/2009	0	0	1.29E-03	U	1.29E-03	2.00E-03	1.6E-03	5.3E-03				
MW1	10061-01-5	SW8260B	9/9/2009	-20	-30	1.29E-03	U	1.29E-03	2.00E-03	1.6E-03	5.3E-03				
MW1	10061-01-5	SW8260B	9/9/2009	-20	-30	4.20E-04	U	4.20E-04	2.00E-03	1.6E-03	5.3E-03				
MW2	10061-01-5	SW8260B	9/8/2009	-16	-28	4.20E-04	U	4.20E-04	2.00E-03	1.6E-03	5.3E-03				
MW2	10061-01-5	SW8260B	9/8/2009	-16	-28	1.29E-03	U	1.29E-03	2.00E-03	1.6E-03	5.3E-03				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

cis-1,3-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3	10061-01-5	SW8260B	9/9/2009	-20	-30	4.20E-04	U	4.20E-04	2.00E-03	1.6E-03	5.3E-03				
MW3	10061-01-5	SW8260B	9/9/2009	-20	-30	1.29E-03	U	1.29E-03	2.00E-03	1.6E-03	5.3E-03				
MW3F	10061-01-5	SW8260B	9/9/2009	-20	-30	4.20E-04	U	4.20E-04	2.00E-03	1.6E-03	5.3E-03				
MW3F	10061-01-5	SW8260B	9/9/2009	-20	-30	1.29E-03	U	1.29E-03	2.00E-03	1.6E-03	5.3E-03				
TB	10061-01-5	SW-846 8260B	9/8/2009	0	0	1.91E-04	U	1.91E-04	1.00E-03	1.6E-03	5.3E-03				
TB	10061-01-5	SW8260B	9/8/2009	0	0	4.20E-04	U	4.20E-04	2.00E-03	1.6E-03	5.3E-03				
TB	10061-01-5	SW8260B	9/8/2009	0	0	1.29E-03	U	1.29E-03	2.00E-03	1.6E-03	5.3E-03				
TB1	10061-01-5	SW8260B	11/9/2009	0	0	4.20E-04	U	4.20E-04	5.00E-03	1.6E-03	5.3E-03				

Cobalt

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-48-4	SW6010B	9/8/2009	0	0	9.00E-03	U	9.00E-03	2.00E+00	2.2E+00	6.1E+00				
EQB2	7440-48-4	SW6010B	9/9/2009	0	0	9.00E-03	U	9.00E-03	2.00E+00	2.2E+00	6.1E+00				
MW1	7440-48-4	SW6010B	9/9/2009	-20	-30	9.00E-03	U	9.00E-03	2.00E+00	2.2E+00	6.1E+00				
MW2	7440-48-4	SW6010B	9/8/2009	-16	-28	9.00E-03	U	9.00E-03	2.00E+00	2.2E+00	6.1E+00				
MW2F	7440-48-4	SW6010B	9/8/2009	-16	-28	9.00E-03	U	9.00E-03	2.00E+00	2.2E+00	6.1E+00				
MW3	7440-48-4	SW6010B	9/9/2009	-20	-30	9.00E-03	U	9.00E-03	2.00E+00	2.2E+00	6.1E+00				
MW3F	7440-48-4	SW6010B	9/9/2009	-20	-30	9.00E-03	U	9.00E-03	2.00E+00	2.2E+00	6.1E+00				

Copper

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-50-8	SW6010B	9/8/2009	0	0	2.20E-02	U	2.20E-02	2.00E+00	1.3E+00	1.3E+00				
EQB2	7440-50-8	SW6010B	9/9/2009	0	0	2.20E-02	U	2.20E-02	2.00E+00	1.3E+00	1.3E+00				
MW1	7440-50-8	SW6010B	9/9/2009	-20	-30	2.20E-02	U	2.20E-02	2.00E+00	1.3E+00	1.3E+00				
MW2	7440-50-8	SW6010B	9/8/2009	-16	-28	2.20E-02	U	2.20E-02	2.00E+00	1.3E+00	1.3E+00				
MW2F	7440-50-8	SW6010B	9/8/2009	-16	-28	2.20E-02	U	2.20E-02	2.00E+00	1.3E+00	1.3E+00				
MW3	7440-50-8	SW6010B	9/9/2009	-20	-30	2.20E-02	U	2.20E-02	2.00E+00	1.3E+00	1.3E+00				
MW3F	7440-50-8	SW6010B	9/9/2009	-20	-30	2.20E-02	U	2.20E-02	2.00E+00	1.3E+00	1.3E+00				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Cyanide

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	57-12-5	SW9010B	9/8/2009	0	0	6.20E-03	U	6.20E-03	2.00E+00	2.0E-01	2.0E-01				
EQB2	57-12-5	SW9010B	9/9/2009	0	0	6.20E-03	U	6.20E-03	2.00E+00	2.0E-01	2.0E-01				
MW1	57-12-5	SW9010B	9/9/2009	-20	-30	6.20E-03	U	6.20E-03	2.00E+00	2.0E-01	2.0E-01				
MW2	57-12-5	SW9010B	9/8/2009	-16	-28	6.20E-03	U	6.20E-03	2.00E+00	2.0E-01	2.0E-01				
MW2F	57-12-5	SW9010B	9/8/2009	-16	-28	6.20E-03	U	6.20E-03	2.00E+00	2.0E-01	2.0E-01				
MW3	57-12-5	SW9010B	9/9/2009	-20	-30	6.20E-03	U	6.20E-03	2.00E+00	2.0E-01	2.0E-01				
MW3F	57-12-5	SW9010B	9/9/2009	-20	-30	6.20E-03	U	6.20E-03	2.00E+00	2.0E-01	2.0E-01				

Dibenz(a,h)anthracene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	53-70-3	SW8270C	9/8/2009	0	0	1.23E-03	U	1.23E-03	2.00E-03	2.0E-04	2.0E-04				
EQB1	53-70-3	8270C	9/8/2009	0	0	1.90E-04	U	1.90E-04	2.00E-03	2.0E-04	2.0E-04				
EQB2	53-70-3	8270C	9/9/2009	0	0	1.90E-04	U	1.90E-04	2.00E-03	2.0E-04	2.0E-04				
EQB2	53-70-3	SW8270C	9/9/2009	0	0	1.23E-03	U	1.23E-03	2.00E-03	2.0E-04	2.0E-04				
MW1	53-70-3	SW8270C	9/9/2009	-20	-30	1.23E-03	U	1.23E-03	2.00E-03	2.0E-04	2.0E-04				
MW1	53-70-3	8270C	9/9/2009	-20	-30	1.90E-04	U	1.90E-04	2.00E-03	2.0E-04	2.0E-04				
MW2	53-70-3	8270C	9/8/2009	-16	-28	1.90E-04	U	1.90E-04	2.00E-03	2.0E-04	2.0E-04				
MW2	53-70-3	SW8270C	9/8/2009	-16	-28	1.23E-03	U	1.23E-03	2.00E-03	2.0E-04	2.0E-04				
MW3	53-70-3	8270C	9/9/2009	-20	-30	1.90E-04	U	1.90E-04	2.00E-03	2.0E-04	2.0E-04				
MW3	53-70-3	SW8270C	9/9/2009	-20	-30	1.23E-03	U	1.23E-03	2.00E-03	2.0E-04	2.0E-04				
MW3F	53-70-3	SW8270C	9/9/2009	-20	-30	1.23E-03	U	1.23E-03	2.00E-03	2.0E-04	2.0E-04				
MW3F	53-70-3	8270C	9/9/2009	-20	-30	1.90E-04	U	1.90E-04	2.00E-03	2.0E-04	2.0E-04				

Dibenzofuran

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	132-64-9	SW8270C	9/8/2009	0	0	7.37E-04	U	7.37E-04	2.00E-03	1.5E-01	4.1E-01				
EQB2	132-64-9	SW8270C	9/9/2009	0	0	7.37E-04	U	7.37E-04	2.00E-03	1.5E-01	4.1E-01				
MW1	132-64-9	SW8270C	9/9/2009	-20	-30	7.37E-04	U	7.37E-04	2.00E-03	1.5E-01	4.1E-01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Dibenzofuran

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW2	132-64-9	SW8270C	9/8/2009	-16	-28	7.37E-04	U	7.37E-04	2.00E-03	1.5E-01	4.1E-01				
MW3	132-64-9	SW8270C	9/9/2009	-20	-30	7.37E-04	U	7.37E-04	2.00E-03	1.5E-01	4.1E-01				
MW3F	132-64-9	SW8270C	9/9/2009	-20	-30	7.37E-04	U	7.37E-04	2.00E-03	1.5E-01	4.1E-01				

Dibromochloromethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	124-48-1	SW8260B	9/8/2009	0	0	1.29E-03	U	1.29E-03	2.00E-03	1.0E-02	3.4E-02				
EQB2	124-48-1	SW8260B	9/9/2009	0	0	1.29E-03	U	1.29E-03	2.00E-03	1.0E-02	3.4E-02				
MW1	124-48-1	SW8260B	9/9/2009	-20	-30	1.29E-03	U	1.29E-03	2.00E-03	1.0E-02	3.4E-02				
MW2	124-48-1	SW8260B	9/8/2009	-16	-28	1.29E-03	U	1.29E-03	2.00E-03	1.0E-02	3.4E-02				
MW3	124-48-1	SW8260B	9/9/2009	-20	-30	1.29E-03	U	1.29E-03	2.00E-03	1.0E-02	3.4E-02				
MW3F	124-48-1	SW8260B	9/9/2009	-20	-30	1.29E-03	U	1.29E-03	2.00E-03	1.0E-02	3.4E-02				
TB	124-48- 1	SW-846 8260B	9/8/2009	0	0	2.19E-04	U	2.19E-04	1.00E-03						
TB	124-48-1	SW8260B	9/8/2009	0	0	1.29E-03	U	1.29E-03	2.00E-03	1.0E-02	3.4E-02				
TB1	124-48-1	SW8260B	11/9/2009	0	0	1.29E-03	U	1.29E-03	5.00E-03	1.0E-02	3.4E-02				

Dibromomethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	74-95-3	SW8260B	9/8/2009	0	0	2.30E-03	U	2.30E-03	2.00E-03	1.1E-01	3.8E-01				
EQB2	74-95-3	SW8260B	9/9/2009	0	0	2.30E-03	U	2.30E-03	2.00E-03	1.1E-01	3.8E-01				
MW1	74-95-3	SW8260B	9/9/2009	-20	-30	2.30E-03	U	2.30E-03	2.00E-03	1.1E-01	3.8E-01				
MW2	74-95-3	SW8260B	9/8/2009	-16	-28	2.30E-03	U	2.30E-03	2.00E-03	1.1E-01	3.8E-01				
MW3	74-95-3	SW8260B	9/9/2009	-20	-30	2.30E-03	U	2.30E-03	2.00E-03	1.1E-01	3.8E-01				
MW3F	74-95-3	SW8260B	9/9/2009	-20	-30	2.30E-03	U	2.30E-03	2.00E-03	1.1E-01	3.8E-01				
TB	74-95-3	SW8260B	9/8/2009	0	0	2.30E-03	U	2.30E-03	2.00E-03	1.1E-01	3.8E-01				
TB	74-95-3	SW-846 8260B	9/8/2009	0	0	1.03E-04	U	1.03E-04	1.00E-03	1.1E-01	3.8E-01				
TB1	74-95-3	SW8260B	11/9/2009	0	0	2.30E-03	U	2.30E-03	5.00E-03	1.1E-01	3.8E-01				

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Dichlorodifluoromethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	75-71-8	SW8260B	9/8/2009	0	0	3.96E-03	U	3.96E-03	2.00E-03	7.3E+00	2.0E+01				
EQB2	75-71-8	SW8260B	9/9/2009	0	0	3.96E-03	U	3.96E-03	2.00E-03	7.3E+00	2.0E+01				
MW1	75-71-8	SW8260B	9/9/2009	-20	-30	3.96E-03	U	3.96E-03	2.00E-03	7.3E+00	2.0E+01				
MW2	75-71-8	SW8260B	9/8/2009	-16	-28	3.96E-03	U	3.96E-03	2.00E-03	7.3E+00	2.0E+01				
MW3	75-71-8	SW8260B	9/9/2009	-20	-30	3.96E-03	U	3.96E-03	2.00E-03	7.3E+00	2.0E+01				
MW3F	75-71-8	SW8260B	9/9/2009	-20	-30	3.96E-03	U	3.96E-03	2.00E-03	7.3E+00	2.0E+01				
TB	75-71-8	SW-846 8260B	9/8/2009	0	0	2.66E-04	U	2.66E-04	1.00E-03	7.3E+00	2.0E+01				
TB	75-71-8	SW8260B	9/8/2009	0	0	3.96E-03	U	3.96E-03	2.00E-03	7.3E+00	2.0E+01				
TB1	75-71-8	SW8260B	11/9/2009	0	0	3.80E-03	U	3.80E-03	5.00E-03	7.3E+00	2.0E+01				

Diethyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	84-66-2	SW8270C	9/8/2009	0	0	9.16E-04	U	9.16E-04	2.00E-03	2.9E+01	8.2E+01				
EQB2	84-66-2	SW8270C	9/9/2009	0	0	9.16E-04	U	9.16E-04	2.00E-03	2.9E+01	8.2E+01				
MW1	84-66-2	SW8270C	9/9/2009	-20	-30	9.16E-04	U	9.16E-04	2.00E-03	2.9E+01	8.2E+01				
MW2	84-66-2	SW8270C	9/8/2009	-16	-28	9.16E-04	U	9.16E-04	2.00E-03	2.9E+01	8.2E+01				
MW3	84-66-2	SW8270C	9/9/2009	-20	-30	9.16E-04	U	9.16E-04	2.00E-03	2.9E+01	8.2E+01				
MW3F	84-66-2	SW8270C	9/9/2009	-20	-30	9.16E-04	U	9.16E-04	2.00E-03	2.9E+01	8.2E+01				

Dimethyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	131-11-3	SW8270C	9/8/2009	0	0	8.17E-04	U	8.17E-04	2.00E-03	2.9E+01	8.2E+01				
EQB2	131-11-3	SW8270C	9/9/2009	0	0	8.17E-04	U	8.17E-04	2.00E-03	2.9E+01	8.2E+01				
MW1	131-11-3	SW8270C	9/9/2009	-20	-30	8.17E-04	U	8.17E-04	2.00E-03	2.9E+01	8.2E+01				
MW2	131-11-3	SW8270C	9/8/2009	-16	-28	8.17E-04	U	8.17E-04	2.00E-03	2.9E+01	8.2E+01				
MW3	131-11-3	SW8270C	9/9/2009	-20	-30	8.17E-04	U	8.17E-04	2.00E-03	2.9E+01	8.2E+01				
MW3F	131-11-3	SW8270C	9/9/2009	-20	-30	8.17E-04	U	8.17E-04	2.00E-03	2.9E+01	8.2E+01				

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Di-n-butyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	84-74-2	SW8270C	9/8/2009	0	0	1.10E-03	U	1.10E-03	2.00E-03	3.6E+00	1.0E+01				
EQB2	84-74-2	SW8270C	9/9/2009	0	0	1.10E-03	U	1.10E-03	2.00E-03	3.6E+00	1.0E+01				
MW1	84-74-2	SW8270C	9/9/2009	-20	-30	1.10E-03	U	1.10E-03	2.00E-03	3.6E+00	1.0E+01				
MW2	84-74-2	SW8270C	9/8/2009	-16	-28	1.10E-03	U	1.10E-03	2.00E-03	3.6E+00	1.0E+01				
MW3	84-74-2	SW8270C	9/9/2009	-20	-30	1.10E-03	U	1.10E-03	2.00E-03	3.6E+00	1.0E+01				
MW3F	84-74-2	SW8270C	9/9/2009	-20	-30	1.10E-03	U	1.10E-03	2.00E-03	3.6E+00	1.0E+01				

Di-n-octyl phthalate

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	117-84-0	SW8270C	9/8/2009	0	0	3.41E-03	U	3.41E-03	2.00E-03	7.3E-01	2.0E+00				
EQB2	117-84-0	SW8270C	9/9/2009	0	0	3.41E-03	U	3.41E-03	2.00E-03	7.3E-01	2.0E+00				
MW1	117-84-0	SW8270C	9/9/2009	-20	-30	3.41E-03	U	3.41E-03	2.00E-03	7.3E-01	2.0E+00				
MW2	117-84-0	SW8270C	9/8/2009	-16	-28	3.41E-03	U	3.41E-03	2.00E-03	7.3E-01	2.0E+00				
MW3	117-84-0	SW8270C	9/9/2009	-20	-30	3.41E-03	U	3.41E-03	2.00E-03	7.3E-01	2.0E+00				
MW3F	117-84-0	SW8270C	9/9/2009	-20	-30	3.41E-03	U	3.41E-03	2.00E-03	7.3E-01	2.0E+00				

Diphenylamine

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	122-39-4	SW8270C	9/8/2009	0	0	5.77E-04	U	5.77E-04	2.00E-03	9.1E-01	2.6E+00				
EQB2	122-39-4	SW8270C	9/9/2009	0	0	5.77E-04	U	5.77E-04	2.00E-03	9.1E-01	2.6E+00				
MW1	122-39-4	SW8270C	9/9/2009	-20	-30	5.77E-04	U	5.77E-04	2.00E-03	9.1E-01	2.6E+00				
MW2	122-39-4	SW8270C	9/8/2009	-16	-28	5.77E-04	U	5.77E-04	2.00E-03	9.1E-01	2.6E+00				
MW3	122-39-4	SW8270C	9/9/2009	-20	-30	5.77E-04	U	5.77E-04	2.00E-03	9.1E-01	2.6E+00				
MW3F	122-39-4	SW8270C	9/9/2009	-20	-30	5.77E-04	U	5.77E-04	2.00E-03	9.1E-01	2.6E+00				

Ethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	100-41-4	SW8260B	9/8/2009	0	0	1.60E-03	U	1.60E-03	2.00E-03	7.0E-01	7.0E-01				
EQB2	100-41-4	SW8260B	9/9/2009	0	0	1.60E-03	U	1.60E-03	2.00E-03	7.0E-01	7.0E-01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Ethylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW1	100-41-4	SW8260B	9/9/2009	-20	-30	1.60E-03	U	1.60E-03	2.00E-03	7.0E-01	7.0E-01				
MW2	100-41-4	SW8260B	9/8/2009	-16	-28	1.60E-03	U	1.60E-03	2.00E-03	7.0E-01	7.0E-01				
MW3	100-41-4	SW8260B	9/9/2009	-20	-30	1.60E-03	U	1.60E-03	2.00E-03	7.0E-01	7.0E-01				
MW3F	100-41-4	SW8260B	9/9/2009	-20	-30	1.60E-03	U	1.60E-03	2.00E-03	7.0E-01	7.0E-01				
TB	100-41-4	SW8260B	9/8/2009	0	0	1.60E-03	U	1.60E-03	2.00E-03	7.0E-01	7.0E-01				
TB	100-41-4	SW-846 8260B	9/8/2009	0	0	1.07E-04	U	1.07E-04	1.00E-03	7.0E-01	7.0E-01				
TB1	100-41-4	SW8260B	11/9/2009	0	0	9.50E-04	U	9.50E-04	5.00E-03	7.0E-01	7.0E-01				

Fluoranthene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	206-44-0	SW8270C	9/8/2009	0	0	1.04E-03	U	1.04E-03	2.00E-03	1.5E+00	4.1E+00				
EQB2	206-44-0	SW8270C	9/9/2009	0	0	1.04E-03	U	1.04E-03	2.00E-03	1.5E+00	4.1E+00				
MW1	206-44-0	SW8270C	9/9/2009	-20	-30	1.04E-03	U	1.04E-03	2.00E-03	1.5E+00	4.1E+00				
MW2	206-44-0	SW8270C	9/8/2009	-16	-28	1.04E-03	U	1.04E-03	2.00E-03	1.5E+00	4.1E+00				
MW3	206-44-0	SW8270C	9/9/2009	-20	-30	1.04E-03	U	1.04E-03	2.00E-03	1.5E+00	4.1E+00				
MW3F	206-44-0	SW8270C	9/9/2009	-20	-30	1.04E-03	U	1.04E-03	2.00E-03	1.5E+00	4.1E+00				

Fluorene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	86-73-7	SW8270C	9/8/2009	0	0	6.38E-04	U	6.38E-04	2.00E-03	1.5E+00	4.1E+00				
EQB2	86-73-7	SW8270C	9/9/2009	0	0	6.38E-04	U	6.38E-04	2.00E-03	1.5E+00	4.1E+00				
MW1	86-73-7	SW8270C	9/9/2009	-20	-30	6.38E-04	U	6.38E-04	2.00E-03	1.5E+00	4.1E+00				
MW2	86-73-7	SW8270C	9/8/2009	-16	-28	6.38E-04	U	6.38E-04	2.00E-03	1.5E+00	4.1E+00				
MW3	86-73-7	SW8270C	9/9/2009	-20	-30	6.38E-04	U	6.38E-04	2.00E-03	1.5E+00	4.1E+00				
MW3F	86-73-7	SW8270C	9/9/2009	-20	-30	6.38E-04	U	6.38E-04	2.00E-03	1.5E+00	4.1E+00				

Hexachlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	118-74-1	8270C	9/8/2009	0	0	4.30E-04	U	4.30E-04	2.00E-03	1.0E-03	1.0E-03				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Hexachlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	118-74-1	SW8270C	9/8/2009	0	0	2.60E-04	U	2.60E-04	2.00E-03	1.0E-03	1.0E-03				
EQB2	118-74-1	8270C	9/9/2009	0	0	4.30E-04	U	4.30E-04	2.00E-03	1.0E-03	1.0E-03				
EQB2	118-74-1	SW8270C	9/9/2009	0	0	2.60E-04	U	2.60E-04	2.00E-03	1.0E-03	1.0E-03				
MW1	118-74-1	SW8270C	9/9/2009	-20	-30	2.60E-04	U	2.60E-04	2.00E-03	1.0E-03	1.0E-03				
MW1	118-74-1	8270C	9/9/2009	-20	-30	4.30E-04	U	4.30E-04	2.00E-03	1.0E-03	1.0E-03				
MW2	118-74-1	SW8270C	9/8/2009	-16	-28	2.60E-04	U	2.60E-04	2.00E-03	1.0E-03	1.0E-03				
MW2	118-74-1	8270C	9/8/2009	-16	-28	4.30E-04	U	4.30E-04	2.00E-03	1.0E-03	1.0E-03				
MW3	118-74-1	SW8270C	9/9/2009	-20	-30	2.60E-04	U	2.60E-04	2.00E-03	1.0E-03	1.0E-03				
MW3	118-74-1	8270C	9/9/2009	-20	-30	4.30E-04	U	4.30E-04	2.00E-03	1.0E-03	1.0E-03				
MW3F	118-74-1	SW8270C	9/9/2009	-20	-30	2.60E-04	U	2.60E-04	2.00E-03	1.0E-03	1.0E-03				
MW3F	118-74-1	8270C	9/9/2009	-20	-30	4.30E-04	U	4.30E-04	2.00E-03	1.0E-03	1.0E-03				

Hexachlorobutadiene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	87-68-3	SW8260B	9/8/2009	0	0	3.03E-03	U	3.03E-03	2.00E-03	7.3E-03	2.0E-02				
EQB1	87-68-3	SW8270C	9/8/2009	0	0	6.05E-04	U	6.05E-04	2.00E-03	7.3E-03	2.0E-02				
EQB2	87-68-3	SW8270C	9/9/2009	0	0	6.05E-04	U	6.05E-04	2.00E-03	7.3E-03	2.0E-02				
EQB2	87-68-3	SW8260B	9/9/2009	0	0	3.03E-03	U	3.03E-03	2.00E-03	7.3E-03	2.0E-02				
MW1	87-68-3	SW8270C	9/9/2009	-20	-30	6.05E-04	U	6.05E-04	2.00E-03	7.3E-03	2.0E-02				
MW1	87-68-3	SW8260B	9/9/2009	-20	-30	3.03E-03	U	3.03E-03	2.00E-03	7.3E-03	2.0E-02				
MW2	87-68-3	SW8270C	9/8/2009	-16	-28	6.05E-04	U	6.05E-04	2.00E-03	7.3E-03	2.0E-02				
MW2	87-68-3	SW8260B	9/8/2009	-16	-28	3.03E-03	U	3.03E-03	2.00E-03	7.3E-03	2.0E-02				
MW3	87-68-3	SW8270C	9/9/2009	-20	-30	6.05E-04	U	6.05E-04	2.00E-03	7.3E-03	2.0E-02				
MW3	87-68-3	SW8260B	9/9/2009	-20	-30	3.03E-03	U	3.03E-03	2.00E-03	7.3E-03	2.0E-02				
MW3F	87-68-3	SW8260B	9/9/2009	-20	-30	3.03E-03	U	3.03E-03	2.00E-03	7.3E-03	2.0E-02				
MW3F	87-68-3	SW8270C	9/9/2009	-20	-30	6.05E-04	U	6.05E-04	2.00E-03	7.3E-03	2.0E-02				
TB	87-68-3	SW8260B	9/8/2009	0	0	3.03E-03	U	3.03E-03	2.00E-03	7.3E-03	2.0E-02				
TB	87-68-3	SW-846 8260B	9/8/2009	0	0	1.29E-03	U	1.29E-03	2.00E-03	7.3E-03	2.0E-02				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Hexachlorobutadiene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB1	87-68-3	SW8260B	11/9/2009	0	0	1.24E-03	U	1.24E-03	5.00E-03	7.3E-03	2.0E-02				

Hexachlorocyclopentadiene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	77-47-4	SW8270C	9/8/2009	0	0	1.02E-03	U	1.02E-03	2.00E-03	5.0E-02	5.0E-02				
EQB2	77-47-4	SW8270C	9/9/2009	0	0	1.02E-03	U	1.02E-03	2.00E-03	5.0E-02	5.0E-02				
MW1	77-47-4	SW8270C	9/9/2009	-20	-30	1.02E-03	U	1.02E-03	2.00E-03	5.0E-02	5.0E-02				
MW2	77-47-4	SW8270C	9/8/2009	-16	-28	1.02E-03	U	1.02E-03	2.00E-03	5.0E-02	5.0E-02				
MW3	77-47-4	SW8270C	9/9/2009	-20	-30	1.02E-03	U	1.02E-03	2.00E-03	5.0E-02	5.0E-02				
MW3F	77-47-4	SW8270C	9/9/2009	-20	-30	1.02E-03	U	1.02E-03	2.00E-03	5.0E-02	5.0E-02				

Hexachloroethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	67-72-1	SW8270C	9/8/2009	0	0	6.73E-04	U	6.73E-04	2.00E-03	3.6E-02	1.0E-01				
EQB2	67-72-1	SW8270C	9/9/2009	0	0	6.73E-04	U	6.73E-04	2.00E-03	3.6E-02	1.0E-01				
MW1	67-72-1	SW8270C	9/9/2009	-20	-30	6.73E-04	U	6.73E-04	2.00E-03	3.6E-02	1.0E-01				
MW2	67-72-1	SW8270C	9/8/2009	-16	-28	6.73E-04	U	6.73E-04	2.00E-03	3.6E-02	1.0E-01				
MW3	67-72-1	SW8270C	9/9/2009	-20	-30	6.73E-04	U	6.73E-04	2.00E-03	3.6E-02	1.0E-01				
MW3F	67-72-1	SW8270C	9/9/2009	-20	-30	6.73E-04	U	6.73E-04	2.00E-03	3.6E-02	1.0E-01				

HMX

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	2691-41-0	SW-846 8330	9/8/2009	0	0	2.59E-05	U	2.59E-05	5.00E-02	1.8E+00	5.1E+00				
EQB2	2691-41-0	SW-846 8330	9/9/2009	0	0	2.36E-05	U	2.36E-05	5.00E-02	1.8E+00	5.1E+00				
MW1	2691-41-0	SW-846 8330	9/9/2009	-20	-30	2.36E-05	U	2.36E-05	5.00E-02	1.8E+00	5.1E+00				
MW2	2691-41-0	SW-846 8330	9/8/2009	-16	-28	2.12E-05	U	2.12E-05	5.00E-02	1.8E+00	5.1E+00				
MW3	2691-41-0	SW-846 8330	9/9/2009	-20	-30	2.59E-05	U	2.59E-05	5.00E-02	1.8E+00	5.1E+00				

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Indeno(1,2,3-cd)pyrene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	193-39-5	SW8270C	9/8/2009	0	0	1.09E-03	U	1.09E-03	2.00E-03	2.0E-04	3.9E-04				
EQB1	193-39-5	8270C	9/8/2009	0	0	1.40E-04	U	1.40E-04	2.00E-03	2.0E-04	3.9E-04				
EQB2	193-39-5	8270C	9/9/2009	0	0	1.40E-04	U	1.40E-04	2.00E-03	2.0E-04	3.9E-04				
EQB2	193-39-5	SW8270C	9/9/2009	0	0	1.09E-03	U	1.09E-03	2.00E-03	2.0E-04	3.9E-04				
MW1	193-39-5	SW8270C	9/9/2009	-20	-30	1.09E-03	U	1.09E-03	2.00E-03	2.0E-04	3.9E-04				
MW1	193-39-5	8270C	9/9/2009	-20	-30	1.40E-04	U	1.40E-04	2.00E-03	2.0E-04	3.9E-04				
MW2	193-39-5	8270C	9/8/2009	-16	-28	1.40E-04	U	1.40E-04	2.00E-03	2.0E-04	3.9E-04				
MW2	193-39-5	SW8270C	9/8/2009	-16	-28	1.09E-03	U	1.09E-03	2.00E-03	2.0E-04	3.9E-04				
MW3	193-39-5	SW8270C	9/9/2009	-20	-30	1.09E-03	U	1.09E-03	2.00E-03	2.0E-04	3.9E-04				
MW3	193-39-5	8270C	9/9/2009	-20	-30	1.40E-04	U	1.40E-04	2.00E-03	2.0E-04	3.9E-04				
MW3F	193-39-5	SW8270C	9/9/2009	-20	-30	1.09E-03	U	1.09E-03	2.00E-03	2.0E-04	3.9E-04				
MW3F	193-39-5	8270C	9/9/2009	-20	-30	1.40E-04	U	1.40E-04	2.00E-03	2.0E-04	3.9E-04				

Iodomethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	74-88-4	SW8260B	9/8/2009	0	0	1.23E-03	U	1.23E-03	2.00E-03	5.1E-02	1.4E-01				
EQB2	74-88-4	SW8260B	9/9/2009	0	0	1.23E-03	U	1.23E-03	2.00E-03	5.1E-02	1.4E-01				
MW1	74-88-4	SW8260B	9/9/2009	-20	-30	1.23E-03	U	1.23E-03	2.00E-03	5.1E-02	1.4E-01				
MW2	74-88-4	SW8260B	9/8/2009	-16	-28	1.23E-03	U	1.23E-03	2.00E-03	5.1E-02	1.4E-01				
MW3	74-88-4	SW8260B	9/9/2009	-20	-30	1.23E-03	U	1.23E-03	2.00E-03	5.1E-02	1.4E-01				
MW3F	74-88-4	SW8260B	9/9/2009	-20	-30	1.23E-03	U	1.23E-03	2.00E-03	5.1E-02	1.4E-01				
TB	74-88-4	SW8260B	9/8/2009	0	0	1.23E-03	U	1.23E-03	2.00E-03	5.1E-02	1.4E-01				
TB1	74-88-4	SW8260B	11/9/2009	0	0	1.23E-03	U	1.23E-03	5.00E-03	5.1E-02	1.4E-01				

Iron

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7439-89-6	SW6010B	9/8/2009	0	0	2.63E-02	U	2.63E-02	2.00E+00			5.13E-01	8.87E-01	4.23E+00	4.01E+00
EQB2	7439-89-6	SW6010B	9/9/2009	0	0	2.63E-02	U	2.63E-02	2.00E+00			5.13E-01	8.87E-01	4.23E+00	4.01E+00

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Iron

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW1	7439-89-6	SW6010B	9/9/2009	-20	-30	2.63E-02	U	2.63E-02	2.00E+00			5.13E-01	8.87E-01	4.23E+00	4.01E+00
MW2	7439-89-6	SW6010B	9/8/2009	-16	-28	7.10E-01		2.63E-02	2.00E+00			5.13E-01	8.87E-01	4.23E+00	4.01E+00
MW2F	7439-89-6	SW6010B	9/8/2009	-16	-28	2.63E-02	U	2.63E-02	2.00E+00			5.13E-01	8.87E-01	4.23E+00	4.01E+00
MW3	7439-89-6	SW6010B	9/9/2009	-20	-30	7.30E-01		2.63E-02	2.00E+00			5.13E-01	8.87E-01	4.23E+00	4.01E+00
MW3F	7439-89-6	SW6010B	9/9/2009	-20	-30	7.00E-02		2.63E-02	2.00E+00			5.13E-01	8.87E-01	4.23E+00	4.01E+00

Isophorone

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	78-59-1	SW8270C	9/8/2009	0	0	7.46E-04	U	7.46E-04	2.00E-03	9.0E-01	3.0E+00				
EQB2	78-59-1	SW8270C	9/9/2009	0	0	7.46E-04	U	7.46E-04	2.00E-03	9.0E-01	3.0E+00				
MW1	78-59-1	SW8270C	9/9/2009	-20	-30	7.46E-04	U	7.46E-04	2.00E-03	9.0E-01	3.0E+00				
MW2	78-59-1	SW8270C	9/8/2009	-16	-28	7.46E-04	U	7.46E-04	2.00E-03	9.0E-01	3.0E+00				
MW3	78-59-1	SW8270C	9/9/2009	-20	-30	7.46E-04	U	7.46E-04	2.00E-03	9.0E-01	3.0E+00				
MW3F	78-59-1	SW8270C	9/9/2009	-20	-30	7.46E-04	U	7.46E-04	2.00E-03	9.0E-01	3.0E+00				

Isopropylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	98-82-8	SW8260B	9/8/2009	0	0	2.08E-03	U	2.08E-03	2.00E-03	3.6E+00	1.0E+01				
EQB2	98-82-8	SW8260B	9/9/2009	0	0	2.08E-03	U	2.08E-03	2.00E-03	3.6E+00	1.0E+01				
MW1	98-82-8	SW8260B	9/9/2009	-20	-30	2.08E-03	U	2.08E-03	2.00E-03	3.6E+00	1.0E+01				
MW2	98-82-8	SW8260B	9/8/2009	-16	-28	2.08E-03	U	2.08E-03	2.00E-03	3.6E+00	1.0E+01				
MW3	98-82-8	SW8260B	9/9/2009	-20	-30	2.08E-03	U	2.08E-03	2.00E-03	3.6E+00	1.0E+01				
MW3F	98-82-8	SW8260B	9/9/2009	-20	-30	2.08E-03	U	2.08E-03	2.00E-03	3.6E+00	1.0E+01				
TB	98-82-8	SW8260B	9/8/2009	0	0	2.08E-03	U	2.08E-03	2.00E-03	3.6E+00	1.0E+01				
TB1	98-82-8	SW8260B	11/9/2009	0	0	2.08E-03	U	2.08E-03	5.00E-03	3.6E+00	1.0E+01				

Isopropylbenzene (Cumene)

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB	98-82-8	SW-846 8260B	9/8/2009	0	0	1.65E-04	U	1.65E-04	1.00E-03	3.6E+00	1.0E+01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Lead

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7439-92-1	SW6010B	9/8/2009	0	0	1.03E-02	U	1.03E-02	2.00E+00	1.5E-02	1.5E-02				
EQB2	7439-92-1	SW6010B	9/9/2009	0	0	1.03E-02	U	1.03E-02	2.00E+00	1.5E-02	1.5E-02				
MW1	7439-92-1	SW6010B	9/9/2009	-20	-30	1.03E-02	U	1.03E-02	2.00E+00	1.5E-02	1.5E-02				
MW2	7439-92-1	SW6010B	9/8/2009	-16	-28	1.03E-02	U	1.03E-02	2.00E+00	1.5E-02	1.5E-02				
MW2F	7439-92-1	SW6010B	9/8/2009	-16	-28	1.03E-02	U	1.03E-02	2.00E+00	1.5E-02	1.5E-02				
MW3	7439-92-1	SW6010B	9/9/2009	-20	-30	1.03E-02	U	1.03E-02	2.00E+00	1.5E-02	1.5E-02				
MW3F	7439-92-1	SW6010B	9/9/2009	-20	-30	1.03E-02	U	1.03E-02	2.00E+00	1.5E-02	1.5E-02				

m- and p-Xylene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB	108-38-3	SW-846 8260B	9/8/2009	0	0	2.21E-04	U	2.21E-04	1.00E-03	1.0E+01	1.0E+01				

m,p-Xylene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	108-38-3	SW8260B	9/8/2009	0	0	2.53E-03	U	2.53E-03	2.00E-03	1.0E+01	1.0E+01				
EQB2	108-38-3	SW8260B	9/9/2009	0	0	2.53E-03	U	2.53E-03	2.00E-03	1.0E+01	1.0E+01				
MW1	108-38-3	SW8260B	9/9/2009	-20	-30	2.53E-03	U	2.53E-03	2.00E-03	1.0E+01	1.0E+01				
MW2	108-38-3	SW8260B	9/8/2009	-16	-28	2.53E-03	U	2.53E-03	2.00E-03	1.0E+01	1.0E+01				
MW3	108-38-3	SW8260B	9/9/2009	-20	-30	2.53E-03	U	2.53E-03	2.00E-03	1.0E+01	1.0E+01				
MW3F	108-38-3	SW8260B	9/9/2009	-20	-30	2.53E-03	U	2.53E-03	2.00E-03	1.0E+01	1.0E+01				
TB	108-38-3	SW8260B	9/8/2009	0	0	2.53E-03	U	2.53E-03	2.00E-03	1.0E+01	1.0E+01				
TB1	179601-23-1	SW8260B	11/9/2009	0	0	2.03E-03	U	2.03E-03	1.00E-02						

Magnesium

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7439-95-4	SW6010B	9/8/2009	0	0	2.00E-01		2.83E-02	2.00E+00			2.18E+02	2.19E+02	4.59E+02	4.62E+02
EQB2	7439-95-4	SW6010B	9/9/2009	0	0	2.83E-02	U	2.83E-02	2.00E+00			2.18E+02	2.19E+02	4.59E+02	4.62E+02
MW1	7439-95-4	SW6010B	9/9/2009	-20	-30	2.29E+02		2.83E-02	2.00E+00			2.18E+02	2.19E+02	4.59E+02	4.62E+02
MW2	7439-95-4	SW6010B	9/8/2009	-16	-28	2.46E+02		2.83E-02	2.00E+00			2.18E+02	2.19E+02	4.59E+02	4.62E+02

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Magnesium

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW2F	7439-95-4	SW6010B	9/8/2009	-16	-28	2.42E+02		2.83E-02	2.00E+00			2.18E+02	2.19E+02	4.59E+02	4.62E+02
MW3	7439-95-4	SW6010B	9/9/2009	-20	-30	1.99E+02		2.83E-02	2.00E+00			2.18E+02	2.19E+02	4.59E+02	4.62E+02
MW3F	7439-95-4	SW6010B	9/9/2009	-20	-30	1.67E+02		2.83E-02	2.00E+00			2.18E+02	2.19E+02	4.59E+02	4.62E+02

Manganese

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7439-96-5	SW6010B	9/8/2009	0	0	3.00E-04	U	3.00E-04	2.00E+00	1.7E+00	1.4E+01	3.79E+00	3.81E+00	7.84E+00	7.82E+00
EQB2	7439-96-5	SW6010B	9/9/2009	0	0	3.00E-04	U	3.00E-04	2.00E+00	1.7E+00	1.4E+01	3.79E+00	3.81E+00	7.84E+00	7.82E+00
MW1	7439-96-5	SW6010B	9/9/2009	-20	-30	2.10E-02		3.00E-04	2.00E+00	1.7E+00	1.4E+01	3.79E+00	3.81E+00	7.84E+00	7.82E+00
MW2	7439-96-5	SW6010B	9/8/2009	-16	-28	1.19E-01		3.00E-04	2.00E+00	1.7E+00	1.4E+01	3.79E+00	3.81E+00	7.84E+00	7.82E+00
MW2F	7439-96-5	SW6010B	9/8/2009	-16	-28	9.20E-02		3.00E-04	2.00E+00	1.7E+00	1.4E+01	3.79E+00	3.81E+00	7.84E+00	7.82E+00
MW3	7439-96-5	SW6010B	9/9/2009	-20	-30	2.65E-01		3.00E-04	2.00E+00	1.7E+00	1.4E+01	3.79E+00	3.81E+00	7.84E+00	7.82E+00
MW3F	7439-96-5	SW6010B	9/9/2009	-20	-30	1.93E-01		3.00E-04	2.00E+00	1.7E+00	1.4E+01	3.79E+00	3.81E+00	7.84E+00	7.82E+00

Mercury

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7439-97-6	SW7470A	9/8/2009	0	0	1.00E-04	U	1.00E-04	2.00E+00	2.0E-03	2.0E-03		5.21E-05		7.93E-05
EQB2	7439-97-6	SW7470A	9/9/2009	0	0	1.00E-04	U	1.00E-04	2.00E+00	2.0E-03	2.0E-03		5.21E-05		7.93E-05
MW1	7439-97-6	SW7470A	9/9/2009	-20	-30	1.00E-04	U	1.00E-04	2.00E+00	2.0E-03	2.0E-03		5.21E-05		7.93E-05
MW2	7439-97-6	SW7470A	9/8/2009	-16	-28	4.80E-03		1.00E-04	2.00E+00	2.0E-03	2.0E-03		5.21E-05		7.93E-05
MW2F	7439-97-6	SW7470A	9/8/2009	-16	-28	1.50E-03		1.00E-04	2.00E+00	2.0E-03	2.0E-03		5.21E-05		7.93E-05
MW3	7439-97-6	SW7470A	9/9/2009	-20	-30	1.00E-04	U	1.00E-04	2.00E+00	2.0E-03	2.0E-03		5.21E-05		7.93E-05
MW3F	7439-97-6	SW7470A	9/9/2009	-20	-30	1.00E-04	U	1.00E-04	2.00E+00	2.0E-03	2.0E-03		5.21E-05		7.93E-05

Methyl ethyl ketone (Butanone)

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB	78-93-3	SW-846 8260B	9/8/2009	0	0	1.36E-03	U	1.36E-03	5.00E-03	2.2E+01	6.1E+01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Methyl Isobutyl Ketone

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB	108-10-1	SW-846 8260B	9/8/2009	0	0	5.31E-04	U	5.31E-04	1.00E-03	2.9E+00	8.2E+00				

Methyl tert-butyl ether

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	1634-04-4	SW8260B	9/8/2009	0	0	2.01E-03	U	2.01E-03	2.00E-03	1.5E-02	1.5E-02				
EQB2	1634-04-4	SW8260B	9/9/2009	0	0	2.01E-03	U	2.01E-03	2.00E-03	1.5E-02	1.5E-02				
MW1	1634-04-4	SW8260B	9/9/2009	-20	-30	2.01E-03	U	2.01E-03	2.00E-03	1.5E-02	1.5E-02				
MW2	1634-04-4	SW8260B	9/8/2009	-16	-28	2.01E-03	U	2.01E-03	2.00E-03	1.5E-02	1.5E-02				
MW3	1634-04-4	SW8260B	9/9/2009	-20	-30	2.01E-03	U	2.01E-03	2.00E-03	1.5E-02	1.5E-02				
MW3F	1634-04-4	SW8260B	9/9/2009	-20	-30	2.01E-03	U	2.01E-03	2.00E-03	1.5E-02	1.5E-02				
TB	1634-04-4	SW8260B	9/8/2009	0	0	2.01E-03	U	2.01E-03	2.00E-03	1.5E-02	1.5E-02				
TB1	1634-04-4	SW8260B	11/9/2009	0	0	2.01E-03	U	2.01E-03	5.00E-03	1.5E-02	1.5E-02				

Methylene chloride

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	75-09-2	SW8260B	9/8/2009	0	0	1.32E-03	U	1.32E-03	2.00E-03	5.0E-03	5.0E-03				
EQB2	75-09-2	SW8260B	9/9/2009	0	0	1.32E-03	U	1.32E-03	2.00E-03	5.0E-03	5.0E-03				
MW1	75-09-2	SW8260B	9/9/2009	-20	-30	1.32E-03	U	1.32E-03	2.00E-03	5.0E-03	5.0E-03				
MW2	75-09-2	SW8260B	9/8/2009	-16	-28	1.32E-03	U	1.32E-03	2.00E-03	5.0E-03	5.0E-03				
MW3	75-09-2	SW8260B	9/9/2009	-20	-30	1.32E-03	U	1.32E-03	2.00E-03	5.0E-03	5.0E-03				
MW3F	75-09-2	SW8260B	9/9/2009	-20	-30	1.32E-03	U	1.32E-03	2.00E-03	5.0E-03	5.0E-03				
TB	75-09-2	SW8260B	9/8/2009	0	0	1.32E-03	U	1.32E-03	2.00E-03	5.0E-03	5.0E-03				
TB	75-09-2	SW-846 8260B	9/8/2009	0	0	2.62E-04	U	2.62E-04	1.00E-03	5.0E-03	5.0E-03				
TB1	75-09-2	SW8260B	11/9/2009	0	0	1.32E-03	U	1.32E-03	2.00E-02	5.0E-03	5.0E-03				

Naphthalene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	91-20-3	SW8270C	9/8/2009	0	0	7.67E-04	U	7.67E-04	2.00E-03	7.3E-01	2.0E+00				
EQB1	91-20-3	SW8260B	9/8/2009	0	0	6.62E-03	U	6.62E-03	2.00E-03	7.3E-01	2.0E+00				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Naphthalene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB2	91-20-3	SW8270C	9/9/2009	0	0	7.67E-04	U	7.67E-04	2.00E-03	7.3E-01	2.0E+00				
EQB2	91-20-3	SW8260B	9/9/2009	0	0	6.62E-03	U	6.62E-03	2.00E-03	7.3E-01	2.0E+00				
MW1	91-20-3	SW8260B	9/9/2009	-20	-30	6.62E-03	U	6.62E-03	2.00E-03	7.3E-01	2.0E+00				
MW1	91-20-3	SW8270C	9/9/2009	-20	-30	7.67E-04	U	7.67E-04	2.00E-03	7.3E-01	2.0E+00				
MW2	91-20-3	SW8260B	9/8/2009	-16	-28	6.62E-03	U	6.62E-03	2.00E-03	7.3E-01	2.0E+00				
MW2	91-20-3	SW8270C	9/8/2009	-16	-28	7.67E-04	U	7.67E-04	2.00E-03	7.3E-01	2.0E+00				
MW3	91-20-3	SW8270C	9/9/2009	-20	-30	7.67E-04	U	7.67E-04	2.00E-03	7.3E-01	2.0E+00				
MW3	91-20-3	SW8260B	9/9/2009	-20	-30	6.62E-03	U	6.62E-03	2.00E-03	7.3E-01	2.0E+00				
MW3F	91-20-3	SW8270C	9/9/2009	-20	-30	7.67E-04	U	7.67E-04	2.00E-03	7.3E-01	2.0E+00				
MW3F	91-20-3	SW8260B	9/9/2009	-20	-30	6.62E-03	U	6.62E-03	2.00E-03	7.3E-01	2.0E+00				
TB	91-20-3	SW8260B	9/8/2009	0	0	6.62E-03	U	6.62E-03	2.00E-03	7.3E-01	2.0E+00				
TB	91-20-3	SW-846 8260B	9/8/2009	0	0	2.55E-04	U	2.55E-04	1.00E-03	7.3E-01	2.0E+00				
TB1	91-20-3	SW8260B	11/9/2009	0	0	2.42E-03	U	2.42E-03	1.00E-02	7.3E-01	2.0E+00				

n-Butylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	104-51-8	SW8260B	9/8/2009	0	0	1.32E-03	U	1.32E-03	2.00E-03	1.5E+00	4.1E+00				
EQB2	104-51-8	SW8260B	9/9/2009	0	0	1.32E-03	U	1.32E-03	2.00E-03	1.5E+00	4.1E+00				
MW1	104-51-8	SW8260B	9/9/2009	-20	-30	1.32E-03	U	1.32E-03	2.00E-03	1.5E+00	4.1E+00				
MW2	104-51-8	SW8260B	9/8/2009	-16	-28	1.32E-03	U	1.32E-03	2.00E-03	1.5E+00	4.1E+00				
MW3	104-51-8	SW8260B	9/9/2009	-20	-30	1.32E-03	U	1.32E-03	2.00E-03	1.5E+00	4.1E+00				
MW3F	104-51-8	SW8260B	9/9/2009	-20	-30	1.32E-03	U	1.32E-03	2.00E-03	1.5E+00	4.1E+00				
TB	104-51-8	SW8260B	9/8/2009	0	0	1.32E-03	U	1.32E-03	2.00E-03	1.5E+00	4.1E+00				
TB	104-51-8	SW-846 8260B	9/8/2009	0	0	3.00E-04	U	3.00E-04	1.00E-03	1.5E+00	4.1E+00				
TB1	104-51-8	SW8260B	11/9/2009	0	0	1.32E-03	U	1.32E-03	5.00E-03	1.5E+00	4.1E+00				

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Nickel

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-02-0	SW6010B	9/8/2009	0	0	3.10E-03	U	3.10E-03	2.00E+00	7.3E-01	2.0E+00				
EQB2	7440-02-0	SW6010B	9/9/2009	0	0	3.10E-03	U	3.10E-03	2.00E+00	7.3E-01	2.0E+00				
MW1	7440-02-0	SW6010B	9/9/2009	-20	-30	3.10E-03	U	3.10E-03	2.00E+00	7.3E-01	2.0E+00				
MW2	7440-02-0	SW6010B	9/8/2009	-16	-28	3.10E-03	U	3.10E-03	2.00E+00	7.3E-01	2.0E+00				
MW2F	7440-02-0	SW6010B	9/8/2009	-16	-28	3.10E-03	U	3.10E-03	2.00E+00	7.3E-01	2.0E+00				
MW3	7440-02-0	SW6010B	9/9/2009	-20	-30	3.10E-03	U	3.10E-03	2.00E+00	7.3E-01	2.0E+00				
MW3F	7440-02-0	SW6010B	9/9/2009	-20	-30	3.10E-03	U	3.10E-03	2.00E+00	7.3E-01	2.0E+00				

Nitrobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	98-95-3	SW-846 8330	9/8/2009	0	0	4.30E-05	U	4.30E-05	5.00E-02	1.8E-02	5.1E-02				
EQB1	98-95-3	SW8270C	9/8/2009	0	0	6.38E-04	U	6.38E-04	2.00E-03	1.8E-02	5.1E-02				
EQB2	98-95-3	SW8270C	9/9/2009	0	0	6.38E-04	U	6.38E-04	2.00E-03	1.8E-02	5.1E-02				
EQB2	98-95-3	SW-846 8330	9/9/2009	0	0	3.91E-05	U	3.91E-05	5.00E-02	1.8E-02	5.1E-02				
MW1	98-95-3	SW8270C	9/9/2009	-20	-30	6.38E-04	U	6.38E-04	2.00E-03	1.8E-02	5.1E-02				
MW1	98-95-3	SW-846 8330	9/9/2009	-20	-30	3.91E-05	U	3.91E-05	5.00E-02	1.8E-02	5.1E-02				
MW2	98-95-3	SW-846 8330	9/8/2009	-16	-28	3.52E-05	U	3.52E-05	5.00E-02	1.8E-02	5.1E-02				
MW2	98-95-3	SW8270C	9/8/2009	-16	-28	6.38E-04	U	6.38E-04	2.00E-03	1.8E-02	5.1E-02				
MW3	98-95-3	SW-846 8330	9/9/2009	-20	-30	4.30E-05	U	4.30E-05	5.00E-02	1.8E-02	5.1E-02				
MW3	98-95-3	SW8270C	9/9/2009	-20	-30	6.38E-04	U	6.38E-04	2.00E-03	1.8E-02	5.1E-02				
MW3F	98-95-3	SW8270C	9/9/2009	-20	-30	6.38E-04	U	6.38E-04	2.00E-03	1.8E-02	5.1E-02				

N-Nitrosodimethylamine

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	62-75-9	SW8270C	9/8/2009	0	0	9.73E-04	U	9.73E-04	2.00E-03	1.7E-06	5.6E-06				
EQB1	62-75-9	8270C	9/8/2009	0	0	9.20E-05	U	9.20E-05	2.00E-03	1.7E-06	5.6E-06				
EQB2	62-75-9	8270C	9/9/2009	0	0	9.20E-05	U	9.20E-05	2.00E-03	1.7E-06	5.6E-06				
EQB2	62-75-9	SW8270C	9/9/2009	0	0	9.73E-04	U	9.73E-04	2.00E-03	1.7E-06	5.6E-06				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

N-Nitrosodimethylamine

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW1	62-75-9	SW8270C	9/9/2009	-20	-30	9.73E-04	U	9.73E-04	2.00E-03	1.7E-06	5.6E-06				
MW1	62-75-9	8270C	9/9/2009	-20	-30	9.20E-05	U	9.20E-05	2.00E-03	1.7E-06	5.6E-06				
MW2	62-75-9	SW8270C	9/8/2009	-16	-28	9.73E-04	U	9.73E-04	2.00E-03	1.7E-06	5.6E-06				
MW2	62-75-9	8270C	9/8/2009	-16	-28	9.20E-05	U	9.20E-05	2.00E-03	1.7E-06	5.6E-06				
MW3	62-75-9	SW8270C	9/9/2009	-20	-30	9.73E-04	U	9.73E-04	2.00E-03	1.7E-06	5.6E-06				
MW3	62-75-9	8270C	9/9/2009	-20	-30	9.20E-05	U	9.20E-05	2.00E-03	1.7E-06	5.6E-06				
MW3F	62-75-9	8270C	9/9/2009	-20	-30	9.20E-05	U	9.20E-05	2.00E-03	1.7E-06	5.6E-06				
MW3F	62-75-9	SW8270C	9/9/2009	-20	-30	9.73E-04	U	9.73E-04	2.00E-03	1.7E-06	5.6E-06				

N-Nitrosodi-n-propylamine

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	621-64-7	SW8270C	9/8/2009	0	0	9.66E-04	U	9.66E-04	2.00E-03	1.2E-05	4.1E-05				
EQB1	621-64-7	8270C	9/8/2009	0	0	6.70E-05	U	6.70E-05	2.00E-03	1.2E-05	4.1E-05				
EQB2	621-64-7	SW8270C	9/9/2009	0	0	9.66E-04	U	9.66E-04	2.00E-03	1.2E-05	4.1E-05				
EQB2	621-64-7	8270C	9/9/2009	0	0	6.70E-05	U	6.70E-05	2.00E-03	1.2E-05	4.1E-05				
MW1	621-64-7	SW8270C	9/9/2009	-20	-30	9.66E-04	U	9.66E-04	2.00E-03	1.2E-05	4.1E-05				
MW1	621-64-7	8270C	9/9/2009	-20	-30	6.70E-05	U	6.70E-05	2.00E-03	1.2E-05	4.1E-05				
MW2	621-64-7	SW8270C	9/8/2009	-16	-28	9.66E-04	U	9.66E-04	2.00E-03	1.2E-05	4.1E-05				
MW2	621-64-7	8270C	9/8/2009	-16	-28	6.70E-05	U	6.70E-05	2.00E-03	1.2E-05	4.1E-05				
MW3	621-64-7	SW8270C	9/9/2009	-20	-30	9.66E-04	U	9.66E-04	2.00E-03	1.2E-05	4.1E-05				
MW3	621-64-7	8270C	9/9/2009	-20	-30	6.70E-05	U	6.70E-05	2.00E-03	1.2E-05	4.1E-05				
MW3F	621-64-7	8270C	9/9/2009	-20	-30	6.70E-05	U	6.70E-05	2.00E-03	1.2E-05	4.1E-05				
MW3F	621-64-7	SW8270C	9/9/2009	-20	-30	9.66E-04	U	9.66E-04	2.00E-03	1.2E-05	4.1E-05				

N-Nitrosodiphenylamine

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	86-30-6	SW8270C	9/8/2009	0	0	5.77E-04	U	5.77E-04	2.00E-03	1.7E-02	5.8E-02				
EQB2	86-30-6	SW8270C	9/9/2009	0	0	5.77E-04	U	5.77E-04	2.00E-03	1.7E-02	5.8E-02				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

N-Nitrosodiphenylamine

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW1	86-30-6	SW8270C	9/9/2009	-20	-30	5.77E-04	U	5.77E-04	2.00E-03	1.7E-02	5.8E-02				
MW2	86-30-6	SW8270C	9/8/2009	-16	-28	5.77E-04	U	5.77E-04	2.00E-03	1.7E-02	5.8E-02				
MW3	86-30-6	SW8270C	9/9/2009	-20	-30	5.77E-04	U	5.77E-04	2.00E-03	1.7E-02	5.8E-02				
MW3F	86-30-6	SW8270C	9/9/2009	-20	-30	5.77E-04	U	5.77E-04	2.00E-03	1.7E-02	5.8E-02				

n-Propylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	103-65-1	SW8260B	9/8/2009	0	0	1.43E-03	U	1.43E-03	2.00E-03	1.5E+00	4.1E+00				
EQB2	103-65-1	SW8260B	9/9/2009	0	0	1.43E-03	U	1.43E-03	2.00E-03	1.5E+00	4.1E+00				
MW1	103-65-1	SW8260B	9/9/2009	-20	-30	1.43E-03	U	1.43E-03	2.00E-03	1.5E+00	4.1E+00				
MW2	103-65-1	SW8260B	9/8/2009	-16	-28	1.43E-03	U	1.43E-03	2.00E-03	1.5E+00	4.1E+00				
MW3	103-65-1	SW8260B	9/9/2009	-20	-30	1.43E-03	U	1.43E-03	2.00E-03	1.5E+00	4.1E+00				
MW3F	103-65-1	SW8260B	9/9/2009	-20	-30	1.43E-03	U	1.43E-03	2.00E-03	1.5E+00	4.1E+00				
TB	103-65-1	SW-846 8260B	9/8/2009	0	0	1.46E-04	U	1.46E-04	1.00E-03	1.5E+00	4.1E+00				
TB	103-65-1	SW8260B	9/8/2009	0	0	1.43E-03	U	1.43E-03	2.00E-03	1.5E+00	4.1E+00				
TB1	103-65-1	SW8260B	11/9/2009	0	0	9.33E-04	U	9.33E-04	5.00E-03	1.5E+00	4.1E+00				

o-Xylene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	95-47-6	SW8260B	9/8/2009	0	0	1.48E-03	U	1.48E-03	2.00E-03	1.0E+01	1.0E+01				
EQB2	95-47-6	SW8260B	9/9/2009	0	0	1.48E-03	U	1.48E-03	2.00E-03	1.0E+01	1.0E+01				
MW1	95-47-6	SW8260B	9/9/2009	-20	-30	1.48E-03	U	1.48E-03	2.00E-03	1.0E+01	1.0E+01				
MW2	95-47-6	SW8260B	9/8/2009	-16	-28	1.48E-03	U	1.48E-03	2.00E-03	1.0E+01	1.0E+01				
MW3	95-47-6	SW8260B	9/9/2009	-20	-30	1.48E-03	U	1.48E-03	2.00E-03	1.0E+01	1.0E+01				
MW3F	95-47-6	SW8260B	9/9/2009	-20	-30	1.48E-03	U	1.48E-03	2.00E-03	1.0E+01	1.0E+01				
TB	95-47-6	SW8260B	9/8/2009	0	0	1.48E-03	U	1.48E-03	2.00E-03	1.0E+01	1.0E+01				
TB	95-47-6	SW-846 8260B	9/8/2009	0	0	1.22E-04	U	1.22E-04	1.00E-03	1.0E+01	1.0E+01				
TB1	95-47-6	SW8260B	11/9/2009	0	0	7.26E-04	U	7.26E-04	5.00E-03	1.0E+01	1.0E+01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Pentachlorobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	608-93-5	SW8270C	9/8/2009	0	0	1.25E-03	U	1.25E-03	2.00E-03	2.9E-02	8.2E-02				
EQB2	608-93-5	SW8270C	9/9/2009	0	0	1.25E-03	U	1.25E-03	2.00E-03	2.9E-02	8.2E-02				
MW1	608-93-5	SW8270C	9/9/2009	-20	-30	1.25E-03	U	1.25E-03	2.00E-03	2.9E-02	8.2E-02				
MW2	608-93-5	SW8270C	9/8/2009	-16	-28	1.25E-03	U	1.25E-03	2.00E-03	2.9E-02	8.2E-02				
MW3	608-93-5	SW8270C	9/9/2009	-20	-30	1.25E-03	U	1.25E-03	2.00E-03	2.9E-02	8.2E-02				
MW3F	608-93-5	SW8270C	9/9/2009	-20	-30	1.25E-03	U	1.25E-03	2.00E-03	2.9E-02	8.2E-02				

Pentachloronitrobenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	82-68-8	SW8270C	9/8/2009	0	0	5.79E-04	U	5.79E-04	2.00E-03	3.3E-03	1.1E-02				
EQB2	82-68-8	SW8270C	9/9/2009	0	0	5.79E-04	U	5.79E-04	2.00E-03	3.3E-03	1.1E-02				
MW1	82-68-8	SW8270C	9/9/2009	-20	-30	5.79E-04	U	5.79E-04	2.00E-03	3.3E-03	1.1E-02				
MW2	82-68-8	SW8270C	9/8/2009	-16	-28	5.79E-04	U	5.79E-04	2.00E-03	3.3E-03	1.1E-02				
MW3	82-68-8	SW8270C	9/9/2009	-20	-30	5.79E-04	U	5.79E-04	2.00E-03	3.3E-03	1.1E-02				
MW3F	82-68-8	SW8270C	9/9/2009	-20	-30	5.79E-04	U	5.79E-04	2.00E-03	3.3E-03	1.1E-02				

Pentachlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	87-86-5	8270C	9/8/2009	0	0	7.80E-04	U	7.80E-04	2.00E-03	1.0E-03	1.0E-03				
EQB1	87-86-5	SW8270C	9/8/2009	0	0	1.06E-03	U	1.06E-03	2.00E-03	1.0E-03	1.0E-03				
EQB2	87-86-5	SW8270C	9/9/2009	0	0	1.06E-03	U	1.06E-03	2.00E-03	1.0E-03	1.0E-03				
EQB2	87-86-5	8270C	9/9/2009	0	0	7.80E-04	U	7.80E-04	2.00E-03	1.0E-03	1.0E-03				
MW1	87-86-5	8270C	9/9/2009	-20	-30	7.80E-04	U	7.80E-04	2.00E-03	1.0E-03	1.0E-03				
MW1	87-86-5	SW8270C	9/9/2009	-20	-30	1.06E-03	U	1.06E-03	2.00E-03	1.0E-03	1.0E-03				
MW2	87-86-5	8270C	9/8/2009	-16	-28	7.80E-04	U	7.80E-04	2.00E-03	1.0E-03	1.0E-03				
MW2	87-86-5	SW8270C	9/8/2009	-16	-28	1.06E-03	U	1.06E-03	2.00E-03	1.0E-03	1.0E-03				
MW3	87-86-5	SW8270C	9/9/2009	-20	-30	1.06E-03	U	1.06E-03	2.00E-03	1.0E-03	1.0E-03				
MW3	87-86-5	8270C	9/9/2009	-20	-30	7.80E-04	U	7.80E-04	2.00E-03	1.0E-03	1.0E-03				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Pentachlorophenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3F	87-86-5	SW8270C	9/9/2009	-20	-30	1.06E-03	U	1.06E-03	2.00E-03	1.0E-03	1.0E-03				
MW3F	87-86-5	8270C	9/9/2009	-20	-30	7.80E-04	U	7.80E-04	2.00E-03	1.0E-03	1.0E-03				

Perchlorate

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	14797-73-0	EPA 314.0	9/8/2009	0	0	1.06E-03	U	1.06E-03	4.00E-03	2.6E-02	7.2E-02				
EQB2	14797-73-0	EPA 314.0	9/9/2009	0	0	1.06E-03	U	1.06E-03	4.00E-03	2.6E-02	7.2E-02				
MW1	14797-73-0	EPA 314.0	9/9/2009	-20	-30	1.06E-02	U	1.06E-02	4.00E-03	2.6E-02	7.2E-02				
MW2	14797-73-0	EPA 314.0	9/8/2009	-16	-28	1.06E-02	U	1.06E-02	4.00E-03	2.6E-02	7.2E-02				
MW2F	14797-73-0	EPA 314.0	9/8/2009	-16	-28	1.06E-02	U	1.06E-02	4.00E-03	2.6E-02	7.2E-02				
MW3	14797-73-0	EPA 314.0	9/9/2009	-20	-30	1.06E-02	U	1.06E-02	4.00E-03	2.6E-02	7.2E-02				
MW3F	14797-73-0	EPA 314.0	9/9/2009	-20	-30	1.06E-02	U	1.06E-02	4.00E-03	2.6E-02	7.2E-02				

Phenanthrene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	85-01-8	SW8270C	9/8/2009	0	0	6.84E-04	U	6.84E-04	2.00E-03	1.1E+00	3.1E+00				
EQB2	85-01-8	SW8270C	9/9/2009	0	0	6.84E-04	U	6.84E-04	2.00E-03	1.1E+00	3.1E+00				
MW1	85-01-8	SW8270C	9/9/2009	-20	-30	6.84E-04	U	6.84E-04	2.00E-03	1.1E+00	3.1E+00				
MW2	85-01-8	SW8270C	9/8/2009	-16	-28	6.84E-04	U	6.84E-04	2.00E-03	1.1E+00	3.1E+00				
MW3	85-01-8	SW8270C	9/9/2009	-20	-30	6.84E-04	U	6.84E-04	2.00E-03	1.1E+00	3.1E+00				
MW3F	85-01-8	SW8270C	9/9/2009	-20	-30	6.84E-04	U	6.84E-04	2.00E-03	1.1E+00	3.1E+00				

Phenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	108-95-2	SW8270C	9/8/2009	0	0	5.09E-04	U	5.09E-04	2.00E-03	1.1E+01	3.1E+01				
EQB2	108-95-2	SW8270C	9/9/2009	0	0	5.09E-04	U	5.09E-04	2.00E-03	1.1E+01	3.1E+01				
MW1	108-95-2	SW8270C	9/9/2009	-20	-30	5.09E-04	U	5.09E-04	2.00E-03	1.1E+01	3.1E+01				
MW2	108-95-2	SW8270C	9/8/2009	-16	-28	5.09E-04	U	5.09E-04	2.00E-03	1.1E+01	3.1E+01				
MW3	108-95-2	SW8270C	9/9/2009	-20	-30	5.09E-04	U	5.09E-04	2.00E-03	1.1E+01	3.1E+01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Phenol

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3F	108-95-2	SW8270C	9/9/2009	-20	-30	5.09E-04	U	5.09E-04	2.00E-03	1.1E+01	3.1E+01				

p-Isopropyltoluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB	99-87-6	SW-846 8260B	9/8/2009	0	0	1.15E-04	U	1.15E-04	1.00E-03	3.6E+00	1.0E+01				

Potassium

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-09-7	SW6010B	9/8/2009	0	0	1.43E+00		1.43E-01	2.00E+00			2.09E+00	2.19E+00	2.98E+00	2.74E+00
EQB2	7440-09-7	SW6010B	9/9/2009	0	0	9.50E-01		1.43E-01	2.00E+00			2.09E+00	2.19E+00	2.98E+00	2.74E+00
MW1	7440-09-7	SW6010B	9/9/2009	-20	-30	1.39E+01		1.43E-01	2.00E+00			2.09E+00	2.19E+00	2.98E+00	2.74E+00
MW2	7440-09-7	SW6010B	9/8/2009	-16	-28	3.67E+01		1.43E-01	2.00E+00			2.09E+00	2.19E+00	2.98E+00	2.74E+00
MW2F	7440-09-7	SW6010B	9/8/2009	-16	-28	2.52E+01		1.43E-01	2.00E+00			2.09E+00	2.19E+00	2.98E+00	2.74E+00
MW3	7440-09-7	SW6010B	9/9/2009	-20	-30	1.68E+01		1.43E-01	2.00E+00			2.09E+00	2.19E+00	2.98E+00	2.74E+00
MW3F	7440-09-7	SW6010B	9/9/2009	-20	-30	1.66E+01		1.43E-01	2.00E+00			2.09E+00	2.19E+00	2.98E+00	2.74E+00

Pyrene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	129-00-0	SW8270C	9/8/2009	0	0	1.90E-03	U	1.90E-03	2.00E-03	1.1E+00	3.1E+00				
EQB2	129-00-0	SW8270C	9/9/2009	0	0	1.90E-03	U	1.90E-03	2.00E-03	1.1E+00	3.1E+00				
MW1	129-00-0	SW8270C	9/9/2009	-20	-30	1.90E-03	U	1.90E-03	2.00E-03	1.1E+00	3.1E+00				
MW2	129-00-0	SW8270C	9/8/2009	-16	-28	1.90E-03	U	1.90E-03	2.00E-03	1.1E+00	3.1E+00				
MW3	129-00-0	SW8270C	9/9/2009	-20	-30	1.90E-03	U	1.90E-03	2.00E-03	1.1E+00	3.1E+00				
MW3F	129-00-0	SW8270C	9/9/2009	-20	-30	1.90E-03	U	1.90E-03	2.00E-03	1.1E+00	3.1E+00				

Pyridine

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	110-86-1	SW8270C	9/8/2009	0	0	2.58E-03	U	2.58E-03	2.00E-03	3.6E-02	1.0E-01				
EQB2	110-86-1	SW8270C	9/9/2009	0	0	2.58E-03	U	2.58E-03	2.00E-03	3.6E-02	1.0E-01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Pyridine

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW1	110-86-1	SW8270C	9/9/2009	-20	-30	2.58E-03	U	2.58E-03	2.00E-03	3.6E-02	1.0E-01				
MW2	110-86-1	SW8270C	9/8/2009	-16	-28	2.58E-03	U	2.58E-03	2.00E-03	3.6E-02	1.0E-01				
MW3	110-86-1	SW8270C	9/9/2009	-20	-30	2.58E-03	U	2.58E-03	2.00E-03	3.6E-02	1.0E-01				
MW3F	110-86-1	SW8270C	9/9/2009	-20	-30	2.58E-03	U	2.58E-03	2.00E-03	3.6E-02	1.0E-01				

RDX

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	121-82-4	SW-846 8330	9/8/2009	0	0	2.21E-04	U	2.21E-04	5.00E-02	7.7E-03	2.6E-02				
EQB2	121-82-4	SW-846 8330	9/9/2009	0	0	2.01E-04	U	2.01E-04	5.00E-02	7.7E-03	2.6E-02				
MW1	121-82-4	SW-846 8330	9/9/2009	-20	-30	2.01E-04	U	2.01E-04	5.00E-02	7.7E-03	2.6E-02				
MW2	121-82-4	SW-846 8330	9/8/2009	-16	-28	1.81E-04	U	1.81E-04	5.00E-02	7.7E-03	2.6E-02				
MW3	121-82-4	SW-846 8330	9/9/2009	-20	-30	2.21E-04	U	2.21E-04	5.00E-02	7.7E-03	2.6E-02				

sec-Butylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	135-98-8	SW8260B	9/8/2009	0	0	8.82E-04	U	8.82E-04	2.00E-03	1.5E+00	4.1E+00				
EQB2	135-98-8	SW8260B	9/9/2009	0	0	8.82E-04	U	8.82E-04	2.00E-03	1.5E+00	4.1E+00				
MW1	135-98-8	SW8260B	9/9/2009	-20	-30	8.82E-04	U	8.82E-04	2.00E-03	1.5E+00	4.1E+00				
MW2	135-98-8	SW8260B	9/8/2009	-16	-28	8.82E-04	U	8.82E-04	2.00E-03	1.5E+00	4.1E+00				
MW3	135-98-8	SW8260B	9/9/2009	-20	-30	8.82E-04	U	8.82E-04	2.00E-03	1.5E+00	4.1E+00				
MW3F	135-98-8	SW8260B	9/9/2009	-20	-30	8.82E-04	U	8.82E-04	2.00E-03	1.5E+00	4.1E+00				
TB	135-98-8	SW8260B	9/8/2009	0	0	8.82E-04	U	8.82E-04	2.00E-03	1.5E+00	4.1E+00				
TB	135-98-8	SW-846 8260B	9/8/2009	0	0	8.17E-05	U	8.17E-05	1.00E-03	1.5E+00	4.1E+00				
TB1	135-98-8	SW8260B	11/9/2009	0	0	8.82E-04	U	8.82E-04	5.00E-03	1.5E+00	4.1E+00				

Selenium

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7782-49-2	SW6010B	9/8/2009	0	0	2.44E-02	U	2.44E-02	2.00E+00	5.0E-02	5.0E-02				
EQB2	7782-49-2	SW6010B	9/9/2009	0	0	2.44E-02	U	2.44E-02	2.00E+00	5.0E-02	5.0E-02				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Selenium

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW1	7782-49-2	SW6010B	9/9/2009	-20	-30	2.44E-02	U	2.44E-02	2.00E+00	5.0E-02	5.0E-02				
MW2	7782-49-2	SW6010B	9/8/2009	-16	-28	2.44E-02	U	2.44E-02	2.00E+00	5.0E-02	5.0E-02				
MW2F	7782-49-2	SW6010B	9/8/2009	-16	-28	2.44E-02	U	2.44E-02	2.00E+00	5.0E-02	5.0E-02				
MW3	7782-49-2	SW6010B	9/9/2009	-20	-30	2.44E-02	U	2.44E-02	2.00E+00	5.0E-02	5.0E-02				
MW3F	7782-49-2	SW6010B	9/9/2009	-20	-30	2.44E-02	U	2.44E-02	2.00E+00	5.0E-02	5.0E-02				

Silver

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-22-4	SW6010B	9/8/2009	0	0	3.50E-03	U	3.50E-03	2.00E+00	1.8E-01	5.1E-01				
EQB2	7440-22-4	SW6010B	9/9/2009	0	0	3.50E-03	U	3.50E-03	2.00E+00	1.8E-01	5.1E-01				
MW1	7440-22-4	SW6010B	9/9/2009	-20	-30	3.50E-03	U	3.50E-03	2.00E+00	1.8E-01	5.1E-01				
MW2	7440-22-4	SW6010B	9/8/2009	-16	-28	3.50E-03	U	3.50E-03	2.00E+00	1.8E-01	5.1E-01				
MW2F	7440-22-4	SW6010B	9/8/2009	-16	-28	3.50E-03	U	3.50E-03	2.00E+00	1.8E-01	5.1E-01				
MW3	7440-22-4	SW6010B	9/9/2009	-20	-30	3.50E-03	U	3.50E-03	2.00E+00	1.8E-01	5.1E-01				
MW3F	7440-22-4	SW6010B	9/9/2009	-20	-30	3.50E-03	U	3.50E-03	2.00E+00	1.8E-01	5.1E-01				

Sodium

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-23-5	SW6010B	9/8/2009	0	0	1.44E-01	U	1.44E-01	2.00E+00						
EQB2	7440-23-5	SW6010B	9/9/2009	0	0	9.49E+00		1.44E-01	2.00E+00						
MW1	7440-23-5	SW6010B	9/9/2009	-20	-30	8.00E+02		1.44E-01	2.00E+00						
MW2	7440-23-5	SW6010B	9/8/2009	-16	-28	1.11E+03		1.44E-01	2.00E+00						
MW2F	7440-23-5	SW6010B	9/8/2009	-16	-28	1.12E+03		1.44E-01	2.00E+00						
MW3	7440-23-5	SW6010B	9/9/2009	-20	-30	7.05E+02		1.44E-01	2.00E+00						
MW3F	7440-23-5	SW6010B	9/9/2009	-20	-30	6.64E+02		1.44E-01	2.00E+00						

Styrene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	100-42-5	SW8260B	9/8/2009	0	0	1.33E-03	U	1.33E-03	2.00E-03	1.0E-01	1.0E-01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Styrene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB2	100-42-5	SW8260B	9/9/2009	0	0	1.33E-03	U	1.33E-03	2.00E-03	1.0E-01	1.0E-01				
MW1	100-42-5	SW8260B	9/9/2009	-20	-30	1.33E-03	U	1.33E-03	2.00E-03	1.0E-01	1.0E-01				
MW2	100-42-5	SW8260B	9/8/2009	-16	-28	1.33E-03	U	1.33E-03	2.00E-03	1.0E-01	1.0E-01				
MW3	100-42-5	SW8260B	9/9/2009	-20	-30	1.33E-03	U	1.33E-03	2.00E-03	1.0E-01	1.0E-01				
MW3F	100-42-5	SW8260B	9/9/2009	-20	-30	1.33E-03	U	1.33E-03	2.00E-03	1.0E-01	1.0E-01				
TB	100-42-5	SW8260B	9/8/2009	0	0	1.33E-03	U	1.33E-03	2.00E-03	1.0E-01	1.0E-01				
TB	100-42-5	SW-846 8260B	9/8/2009	0	0	1.29E-04	U	1.29E-04	1.00E-03	1.0E-01	1.0E-01				
TB1	100-42-5	SW8260B	11/9/2009	0	0	5.13E-04	U	5.13E-04	5.00E-03	1.0E-01	1.0E-01				

tert-Butylbenzene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	98-06-6	SW8260B	9/8/2009	0	0	1.28E-03	U	1.28E-03	2.00E-03	1.5E+00	4.1E+00				
EQB2	98-06-6	SW8260B	9/9/2009	0	0	1.28E-03	U	1.28E-03	2.00E-03	1.5E+00	4.1E+00				
MW1	98-06-6	SW8260B	9/9/2009	-20	-30	1.28E-03	U	1.28E-03	2.00E-03	1.5E+00	4.1E+00				
MW2	98-06-6	SW8260B	9/8/2009	-16	-28	1.28E-03	U	1.28E-03	2.00E-03	1.5E+00	4.1E+00				
MW3	98-06-6	SW8260B	9/9/2009	-20	-30	1.28E-03	U	1.28E-03	2.00E-03	1.5E+00	4.1E+00				
MW3F	98-06-6	SW8260B	9/9/2009	-20	-30	1.28E-03	U	1.28E-03	2.00E-03	1.5E+00	4.1E+00				
TB	98-06-6	SW8260B	9/8/2009	0	0	1.28E-03	U	1.28E-03	2.00E-03	1.5E+00	4.1E+00				
TB	98-06-6	SW-846 8260B	9/8/2009	0	0	2.09E-04	U	2.09E-04	1.00E-03	1.5E+00	4.1E+00				
TB1	98-06-6	SW8260B	11/9/2009	0	0	1.28E-03	U	1.28E-03	5.00E-03	1.5E+00	4.1E+00				

tert-Butylmethylether (MTBE)

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB	1634-04-4	SW-846 8260B	9/8/2009	0	0	2.65E-04	U	2.65E-04	1.00E-03	1.5E-02	1.5E-02				

Tetrachloroethene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	127-18-4	SW8260B	9/8/2009	0	0	1.53E-03	U	1.53E-03	2.00E-03	5.0E-03	5.0E-03				
EQB2	127-18-4	SW8260B	9/9/2009	0	0	1.53E-03	U	1.53E-03	2.00E-03	5.0E-03	5.0E-03				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Tetrachloroethene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW1	127-18-4	SW8260B	9/9/2009	-20	-30	1.53E-03	U	1.53E-03	2.00E-03	5.0E-03	5.0E-03				
MW2	127-18-4	SW8260B	9/8/2009	-16	-28	1.53E-03	U	1.53E-03	2.00E-03	5.0E-03	5.0E-03				
MW3	127-18-4	SW8260B	9/9/2009	-20	-30	1.53E-03	U	1.53E-03	2.00E-03	5.0E-03	5.0E-03				
MW3F	127-18-4	SW8260B	9/9/2009	-20	-30	1.53E-03	U	1.53E-03	2.00E-03	5.0E-03	5.0E-03				
TB	127-18-4	SW8260B	9/8/2009	0	0	1.53E-03	U	1.53E-03	2.00E-03	5.0E-03	5.0E-03				
TB1	127-18-4	SW8260B	11/9/2009	0	0	1.53E-03	U	1.53E-03	5.00E-03	5.0E-03	5.0E-03				

Tetrachloroethylene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB	127-18-4	SW-846 8260B	9/8/2009	0	0	3.16E-04	U	3.16E-04	1.00E-03	5.0E-03	5.0E-03				

Tetryl

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	479-45-8	SW-846 8330	9/8/2009	0	0	2.96E-05	U	2.96E-05	5.00E-02	3.6E-01	1.0E+00				
EQB2	479-45-8	SW-846 8330	9/9/2009	0	0	2.69E-05	U	2.69E-05	5.00E-02	3.6E-01	1.0E+00				
MW1	479-45-8	SW-846 8330	9/9/2009	-20	-30	2.69E-05	U	2.69E-05	5.00E-02	3.6E-01	1.0E+00				
MW2	479-45-8	SW-846 8330	9/8/2009	-16	-28	2.43E-05	U	2.43E-05	5.00E-02	3.6E-01	1.0E+00				
MW3	479-45-8	SW-846 8330	9/9/2009	-20	-30	2.96E-05	U	2.96E-05	5.00E-02	3.6E-01	1.0E+00				

Thallium

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-28-0	SW6010B	9/8/2009	0	0	2.12E-02	U	2.12E-02	2.00E+00	2.0E-03	2.0E-03				
EQB2	7440-28-0	SW6010B	9/9/2009	0	0	2.12E-02	U	2.12E-02	2.00E+00	2.0E-03	2.0E-03				
MW1	7440-28-0	SW6020B	9/9/2009	-20	-30	1.40E-03	U	1.40E-03	2.00E-03	2.0E-03	2.0E-03				
MW1	7440-28-0	SW6010B	9/9/2009	-20	-30	2.12E-02	U	2.12E-02	2.00E+00	2.0E-03	2.0E-03				
MW2	7440-28-0	SW6010B	9/8/2009	-16	-28	2.12E-02	U	2.12E-02	2.00E+00	2.0E-03	2.0E-03				
MW2F	7440-28-0	SW6010B	9/8/2009	-16	-28	2.12E-02	U	2.12E-02	2.00E+00	2.0E-03	2.0E-03				
MW2F	7440-28-0	SW6020B	9/8/2009	-16	-28	1.40E-03	U	1.40E-03	2.00E-03	2.0E-03	2.0E-03				
MW3	7440-28-0	SW6010B	9/9/2009	-20	-30	2.12E-02	U	2.12E-02	2.00E+00	2.0E-03	2.0E-03				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Thallium

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW3F	7440-28-0	SW6010B	9/9/2009	-20	-30	2.12E-02	U	2.12E-02	2.00E+00	2.0E-03	2.0E-03				
MW3F	7440-28-0	SW6020B	9/9/2009	-20	-30	1.40E-03	U	1.40E-03	2.00E-03	2.0E-03	2.0E-03				

Toluene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	108-88-3	SW8260B	9/8/2009	0	0	1.48E-03	U	1.48E-03	2.00E-03	1.0E+00	1.0E+00				
EQB2	108-88-3	SW8260B	9/9/2009	0	0	1.48E-03	U	1.48E-03	2.00E-03	1.0E+00	1.0E+00				
MW1	108-88-3	SW8260B	9/9/2009	-20	-30	1.48E-03	U	1.48E-03	2.00E-03	1.0E+00	1.0E+00				
MW2	108-88-3	SW8260B	9/8/2009	-16	-28	1.48E-03	U	1.48E-03	2.00E-03	1.0E+00	1.0E+00				
MW3	108-88-3	SW8260B	9/9/2009	-20	-30	1.48E-03	U	1.48E-03	2.00E-03	1.0E+00	1.0E+00				
MW3F	108-88-3	SW8260B	9/9/2009	-20	-30	1.48E-03	U	1.48E-03	2.00E-03	1.0E+00	1.0E+00				
TB	108-88-3	SW-846 8260B	9/8/2009	0	0	1.07E-04	U	1.07E-04	1.00E-03	1.0E+00	1.0E+00				
TB	108-88-3	SW8260B	9/8/2009	0	0	1.48E-03	U	1.48E-03	2.00E-03	1.0E+00	1.0E+00				
TB1	108-88-3	SW8260B	11/9/2009	0	0	7.25E-04	U	7.25E-04	5.00E-03	1.0E+00	1.0E+00				

trans-1,2-Dichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	156-60-5	SW8260B	9/8/2009	0	0	1.58E-03	U	1.58E-03	2.00E-03	1.0E-01	1.0E-01				
EQB2	156-60-5	SW8260B	9/9/2009	0	0	1.58E-03	U	1.58E-03	2.00E-03	1.0E-01	1.0E-01				
MW1	156-60-5	SW8260B	9/9/2009	-20	-30	1.58E-03	U	1.58E-03	2.00E-03	1.0E-01	1.0E-01				
MW2	156-60-5	SW8260B	9/8/2009	-16	-28	1.58E-03	U	1.58E-03	2.00E-03	1.0E-01	1.0E-01				
MW3	156-60-5	SW8260B	9/9/2009	-20	-30	1.58E-03	U	1.58E-03	2.00E-03	1.0E-01	1.0E-01				
MW3F	156-60-5	SW8260B	9/9/2009	-20	-30	1.58E-03	U	1.58E-03	2.00E-03	1.0E-01	1.0E-01				
TB	156-60-5	SW-846 8260B	9/8/2009	0	0	2.52E-04	U	2.52E-04	1.00E-03	1.0E-01	1.0E-01				
TB	156-60-5	SW8260B	9/8/2009	0	0	1.58E-03	U	1.58E-03	2.00E-03	1.0E-01	1.0E-01				
TB1	156-60-5	SW8260B	11/9/2009	0	0	1.58E-03	U	1.58E-03	5.00E-03	1.0E-01	1.0E-01				

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

trans-1,3-Dichloropropene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	142-28-9	SW8260B	9/8/2009	0	0	1.31E-03	U	1.31E-03	2.00E-03	8.5E-03	2.9E-02				
EQB2	142-28-9	SW8260B	9/9/2009	0	0	1.31E-03	U	1.31E-03	2.00E-03	8.5E-03	2.9E-02				
MW1	142-28-9	SW8260B	9/9/2009	-20	-30	1.31E-03	U	1.31E-03	2.00E-03	8.5E-03	2.9E-02				
MW2	142-28-9	SW8260B	9/8/2009	-16	-28	1.31E-03	U	1.31E-03	2.00E-03	8.5E-03	2.9E-02				
MW3	142-28-9	SW8260B	9/9/2009	-20	-30	1.31E-03	U	1.31E-03	2.00E-03	8.5E-03	2.9E-02				
MW3F	142-28-9	SW8260B	9/9/2009	-20	-30	1.31E-03	U	1.31E-03	2.00E-03	8.5E-03	2.9E-02				
TB	142-28-9	SW8260B	9/8/2009	0	0	1.31E-03	U	1.31E-03	2.00E-03	8.5E-03	2.9E-02				
TB	142-28-9	SW-846 8260B	9/8/2009	0	0	1.03E-04	U	1.03E-04	1.00E-03	8.5E-03	2.9E-02				
TB1	10061-02-9	SW8260B	11/9/2009	0	0	1.31E-03	U	1.31E-03	1.00E-02						

Trichloroethene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	79-01-6	SW8260B	9/8/2009	0	0	1.39E-03	U	1.39E-03	2.00E-03	5.0E-03	5.0E-03				
EQB2	79-01-6	SW8260B	9/9/2009	0	0	1.39E-03	U	1.39E-03	2.00E-03	5.0E-03	5.0E-03				
MW1	79-01-6	SW8260B	9/9/2009	-20	-30	1.39E-03	U	1.39E-03	2.00E-03	5.0E-03	5.0E-03				
MW2	79-01-6	SW8260B	9/8/2009	-16	-28	1.39E-03	U	1.39E-03	2.00E-03	5.0E-03	5.0E-03				
MW3	79-01-6	SW8260B	9/9/2009	-20	-30	1.39E-03	U	1.39E-03	2.00E-03	5.0E-03	5.0E-03				
MW3F	79-01-6	SW8260B	9/9/2009	-20	-30	1.39E-03	U	1.39E-03	2.00E-03	5.0E-03	5.0E-03				
TB	79-01-6	SW8260B	9/8/2009	0	0	1.39E-03	U	1.39E-03	2.00E-03	5.0E-03	5.0E-03				
TB1	79-01-6	SW8260B	11/9/2009	0	0	1.39E-03	U	1.39E-03	5.00E-03	5.0E-03	5.0E-03				

Trichloroethylene

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB	79-01-6	SW-846 8260B	9/8/2009	0	0	2.20E-04	U	2.20E-04	1.00E-03	5.0E-03	5.0E-03				

Trichlorofluoromethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	75-69-4	SW8260B	9/8/2009	0	0	1.37E-03	U	1.37E-03	2.00E-03	1.1E+01	3.1E+01				
EQB2	75-69-4	SW8260B	9/9/2009	0	0	1.37E-03	U	1.37E-03	2.00E-03	1.1E+01	3.1E+01				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Trichlorofluoromethane

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
MW1	75-69-4	SW8260B	9/9/2009	-20	-30	1.37E-03	U	1.37E-03	2.00E-03	1.1E+01	3.1E+01				
MW2	75-69-4	SW8260B	9/8/2009	-16	-28	1.37E-03	U	1.37E-03	2.00E-03	1.1E+01	3.1E+01				
MW3	75-69-4	SW8260B	9/9/2009	-20	-30	1.37E-03	U	1.37E-03	2.00E-03	1.1E+01	3.1E+01				
MW3F	75-69-4	SW8260B	9/9/2009	-20	-30	1.37E-03	U	1.37E-03	2.00E-03	1.1E+01	3.1E+01				
TB	75-69-4	SW8260B	9/8/2009	0	0	1.37E-03	U	1.37E-03	2.00E-03	1.1E+01	3.1E+01				
TB	75-69-4	SW-846 8260B	9/8/2009	0	0	2.05E-04	U	2.05E-04	1.00E-03	1.1E+01	3.1E+01				
TB1	75-69-4	SW8260B	11/9/2009	0	0	1.37E-03	U	1.37E-03	5.00E-03	1.1E+01	3.1E+01				

Vanadium

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-62-2	SW6010B	9/8/2009	0	0	1.20E-02	U	1.20E-02	2.00E+00	2.6E-01	7.2E-01	8.51E-04	1.66E-03	1.16E-03	3.99E-03
EQB2	7440-62-2	SW6010B	9/9/2009	0	0	5.00E-02		1.20E-02	2.00E+00	2.6E-01	7.2E-01	8.51E-04	1.66E-03	1.16E-03	3.99E-03
MW1	7440-62-2	SW6010B	9/9/2009	-20	-30	1.20E-02	U	1.20E-02	2.00E+00	2.6E-01	7.2E-01	8.51E-04	1.66E-03	1.16E-03	3.99E-03
MW2	7440-62-2	SW6010B	9/8/2009	-16	-28	1.20E-02	U	1.20E-02	2.00E+00	2.6E-01	7.2E-01	8.51E-04	1.66E-03	1.16E-03	3.99E-03
MW2F	7440-62-2	SW6010B	9/8/2009	-16	-28	1.20E-02	U	1.20E-02	2.00E+00	2.6E-01	7.2E-01	8.51E-04	1.66E-03	1.16E-03	3.99E-03
MW3	7440-62-2	SW6010B	9/9/2009	-20	-30	1.20E-02	U	1.20E-02	2.00E+00	2.6E-01	7.2E-01	8.51E-04	1.66E-03	1.16E-03	3.99E-03
MW3F	7440-62-2	SW6010B	9/9/2009	-20	-30	1.20E-02	U	1.20E-02	2.00E+00	2.6E-01	7.2E-01	8.51E-04	1.66E-03	1.16E-03	3.99E-03

Vinyl chloride

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	75-01-4	SW8260B	9/8/2009	0	0	9.30E-04	U	9.30E-04	2.00E-03	2.0E-03	2.0E-03				
EQB2	75-01-4	SW8260B	9/9/2009	0	0	9.30E-04	U	9.30E-04	2.00E-03	2.0E-03	2.0E-03				
MW1	75-01-4	SW8260B	9/9/2009	-20	-30	9.30E-04	U	9.30E-04	2.00E-03	2.0E-03	2.0E-03				
MW2	75-01-4	SW8260B	9/8/2009	-16	-28	9.30E-04	U	9.30E-04	2.00E-03	2.0E-03	2.0E-03				
MW3	75-01-4	SW8260B	9/9/2009	-20	-30	9.30E-04	U	9.30E-04	2.00E-03	2.0E-03	2.0E-03				
MW3F	75-01-4	SW8260B	9/9/2009	-20	-30	9.30E-04	U	9.30E-04	2.00E-03	2.0E-03	2.0E-03				
TB	75-01-4	SW-846 8260B	9/8/2009	0	0	1.79E-04	U	1.79E-04	1.00E-03	2.0E-03	2.0E-03				
TB	75-01-4	SW8260B	9/8/2009	0	0	9.30E-04	U	9.30E-04	2.00E-03	2.0E-03	2.0E-03				

SITE: LHAAP19

Result exceeds shaded MSC.

Appendix 7 - Groundwater Data Summary Table
Based on Residential and Commercial / Industrial Land Use

Vinyl chloride

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
TB1	75-01-4	SW8260B	11/9/2009	0	0	9.31E-04	U	9.31E-04	2.00E-03	2.0E-03	2.0E-03				

Zinc

Sample ID	CAS	Method	Sample Date	Top Dep	Bot. Dep	Result	Qual	SQL	MQL	GW Res	GW Ind	UCL Dslvd	UCL Total	UTL Dslvd	UTL Total
EQB1	7440-66-6	SW6010B	9/8/2009	0	0	8.00E-03	U	8.00E-03	2.00E+00	1.1E+01	3.1E+01	2.74E-02	1.44E-02	5.92E-02	3.02E-02
EQB2	7440-66-6	SW6010B	9/9/2009	0	0	8.00E-03	U	8.00E-03	2.00E+00	1.1E+01	3.1E+01	2.74E-02	1.44E-02	5.92E-02	3.02E-02
MW1	7440-66-6	SW6010B	9/9/2009	-20	-30	8.00E-03	U	8.00E-03	2.00E+00	1.1E+01	3.1E+01	2.74E-02	1.44E-02	5.92E-02	3.02E-02
MW2	7440-66-6	SW6010B	9/8/2009	-16	-28	8.00E-03	U	8.00E-03	2.00E+00	1.1E+01	3.1E+01	2.74E-02	1.44E-02	5.92E-02	3.02E-02
MW2F	7440-66-6	SW6010B	9/8/2009	-16	-28	8.00E-03	U	8.00E-03	2.00E+00	1.1E+01	3.1E+01	2.74E-02	1.44E-02	5.92E-02	3.02E-02
MW3	7440-66-6	SW6010B	9/9/2009	-20	-30	4.90E-01		8.00E-03	2.00E+00	1.1E+01	3.1E+01	2.74E-02	1.44E-02	5.92E-02	3.02E-02
MW3F	7440-66-6	SW6010B	9/9/2009	-20	-30	8.00E-03	U	8.00E-03	2.00E+00	1.1E+01	3.1E+01	2.74E-02	1.44E-02	5.92E-02	3.02E-02

SITE: LHAAP19

Result exceeds shaded MSC.

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APPENDIX 8

GROUNDWATER LABORATORY DATA PACKAGES AND ASSOCIATED DATA USABILITY SUMMARIES

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Data Usability Summary
LHAAP-19
Lab Project No. 0909042

Introduction

Regulatory Compliance & Guidance (RCG) reviewed one data package (Job No. 0909042) prepared by Alamo Analytical Laboratories, LTD for laboratory samples 0909042-1A through -8A. The data package was reviewed following guidance (Consistency Document[1] and TRRP-13[2]) prepared by the Texas Commission on Environmental Quality (TCEQ) and the equivalent sections of engineering manual (EM) 200-1-10[3] prepared by the US Army Corps of Engineers (USACE).

Intended Use of Data

The data is to be used to support a risk-based closure of the LHAAP-19 under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) consistent with requirements of Title 30 Texas Administrative Code (TAC) §335.8 (relating to closure and remediation).

Data Package Content

To ensure data quality, a data package compliant with TRRP-13[4] was requested from the laboratory. The data package included the following:

- signed, laboratory review checklist and associated exception reports (when needed);
- cross-reference guide for field to laboratory identification numbers;
- completed chain of custody form and written documentation regarding changes/comments;
- reportable data;
- quality control results for duplicates, method blanks, laboratory control samples and laboratory control sample duplicates, matrix spike and matrix spike duplicates, laboratory fortified blanks, and surrogate recoveries;
- laboratory chronicles;
- quality assurance methods, references, and notes; and
- sample log-in checklist.

Chain of Custody Form

The samples were collected on September 8 and 9, 2009 from the Longhorn Army Ammunition Plant (LHAAP) Site 19 in Karnack, TX (Site). Five (5) groundwater samples, one trip blank, and two (2) equipment blanks were received by the laboratory on September 11, 2009. According to the chain of custody form, the groundwater samples and the equipment blanks were to be analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (S-VOCs), and target analyte list (TAL) metals. The trip blank was to be analyzed only for VOCs.

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[1] TCEQ. 1998. Interoffice Memorandum regarding Implementation of the Existing Risk Reduction Rule. July 23.
[2] TCEQ. 2002. Review and Reporting COC Concentration Data. RG366/TRRP-13. December.
[3] USACE. 2005. Guidance for Evaluating Performance-Based Chemical Data. EM 200-1-10. June 30. http://140.194.76.129/publications/eng-manuals/em200-1-10/entire.pdf
[4] TCEQ. 2002. Review and Reporting of COC Concentration Data. RG366/TRRP-13. August.

Analytical Methods, Preservation, and Holding Times

Analytical Methods

The laboratory utilized analytical methods described in the *Test Methods for Evaluating Solid Waste, Third Edition, September 1986 and Updates I, II, IIA, IIB, and III* (SW-846). The analytical methods utilized were:

- SW6010B (aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, selenium, silver, sodium, strontium, thallium, vanadium, and zinc);
- SW7196A (hexavalent chromium);
- SW7470A (mercury);
- SW9010B (cyanide);
- SW8260B by gas chromatography (GC)/ mass spectrometry (MS) (VOCs); and
- SW8270C by GC/MS with selective ion monitoring (SIM) (S-VOCs).

On January 22, 2010 (see electronic mail attached to analytical report), the laboratory was requested to analyze the groundwater samples (MW1, MW2, and MW3) for thallium using EPA Method 6020 in order to obtain a lower SQL.

Preservation and Holding Times

The holding times and preservation requirements found in SW846 and EM 200-1-3[5] are summarized in Table 1. The preparation and analysis dates are taken from the laboratory chronicles.

Table 1 Holding Times and Preservation Requirements

Test Method	Holding Times	Preservative	Sample Date	Prep Date	Analysis Date
SW6010B	6 months	HNO_3 to pH<2	9/8-9/2009	9/16/2009	9/16/2009
SW6020	6 months	HNO_3 to pH<2	9/8-9/2009	1/25/2010	1/25/2010
SW7196A	24 hours	4°C	9/8-9/2009	9/11/2009	9/11/2009
SW7470A	28 days	4°C	9/8-9/2009	9/17/2009	9/17/2009
SW9010A	14 days	NaOH to pH>12	9/8-9/2009	9/17/2009	9/17/2009
SW8260B	14 days	H_2SO_4 to pH <2, 4°C	9/8-9/2009	9/16/2009	9/16/2009
SW8270C	7/40 days	4°C	9/8-9/2009	9/14/2009	9/18/2009
SW8270C SIM			9/8-9/2009	9/14/2009	9/22/2009

The samples were properly sealed and preserved. With the exception of hexavalent chromium, the samples were extracted and analyzed within the required holding times. Total chromium was not detected using Method SW6010B. Therefore, the holding time does not affect the use of this data[6].

[5] USACE. 2001. Engineering and Design – Requirements for the Preparation of Sampling and Analysis Plans. February 1.
[6] Alamo Analytical Laboratories. 2009. Transmittal letter to Phyllis Primrose from Reddy Gosala for Order No. 0909042. September.

Quality Control

Quality control samples included method blanks, surrogate recoveries, laboratory control samples (LCS) and LCS duplicates, matrix spike and matrix spike duplicates (MS/MSD).

Blanks

Blanks are used to determine if the samples may have been contaminated as the result of transportation or laboratory practices. If an analyte is detected in a blank, then a detected result in an associated sample may not be representative of actual site conditions.

The target analytes were not detected in the laboratory blanks or the trip blank.

Laboratory control sample (LCS)

According to the Environmental Protection Agency (EPA)[7], "The primary purpose of the LCS is to demonstrate that the laboratory can perform the overall analytical approach in a matrix free of interferences (e.g., in reagent water, clean sand, or another suitable reference matrix)." The percent recovery indicates the accuracy of the lab and whether the data is biased (high or low). The relative percent difference (RPD) indicates the laboratory's ability to reproduce the data (precision).

The lowest and highest percent recoveries are listed in Table 2. The project control limits were based on USACE (2005). Since the laboratory control limits vary for each individual parameter, the widest range is listed for each test method.

Table 2 LCS Percent Recoveries Compared to Project and Laboratory Control Limits

Method Description	Percent Recovery	Project Control Limits (% Recovery)	Laboratory Control Limits (% Recovery)
Inorganics	84-104	80-120	80-120
S-VOCs	35-109	60-140	20-140
VOCs	81-111	80-120	21-201

The control limits were met except for the S-VOC parameters listed in Table 3.

Table 3 Percent Recoveries Outside Control Limits for LCS

Parameter	Percent Recovery LCS	Percent Recovery MS
3-nitroaniline	35	47
4-chloroaniline	42	34
4-nitroaniline	59	63
N-nitrosodimethylamine	42	41
Pyridine	49	45

[7] EPA. 2009. Batch Sizes and QC Questions. Downloaded from web page on December 4. http://www.epa.gov/osw/hazard/testmethods/faq/faqs_qc.htm#Spike

The reported results for the parameters listed in Table 3 may be biased low. The reported results were adjusted by the percent recovery and the adjusted results were compared directly to the regulatory levels. The adjusted results do not change the original conclusions based on the reported results. No further action is warranted.

Matrix spike and matrix spike duplicate (MS/MSD)

The MS/MSD results measure a method's performance relative to the specific sample matrix of interest (EPA, 2009). If the percent recoveries and relative percent differences (RPDs) for the MS/MSD are similar to those of the LCS/LCSDs, then matrix interference is unlikely.

Project sample MW2 was used as the MS/MSD for metals. MW3F was used as the MS/MSD for S-VOCs and VOCs. The ranges for percent recovery and RPD for the project samples are listed in Table 4. The project limits were based on USACE, 2005.

Table 4 Percent Recovery Ranges with Maximum RPD for MS/MSDs

Method Description	%Recovery	Maximum	Project Control Limits (% Recovery)	Project Control Limits (RPD)	Laboratory Control Limits (% Recovery)
Inorganics	72-99	19.8	80-120	20	80-120
S-VOCs	34-106	39.7	60-140	40	20-140
VOCs	82-112	15.2	80-120	20	21-201

The RPDs were within the project limits. The percent recoveries for the aluminum (72) and 4-chloroaniline (34) were outside the control limits AND differed from the recoveries for the LCSs. The reported results for these parameters may be biased low due to matrix interference. The reported results for these parameters were adjusted by the percent recovery and compared to the action level. The adjusted results do not change the original conclusion based on the reported results. No further action is warranted.

Surrogate Recoveries

Surrogates are similar in chemical composition to the organic analytes of interest. The surrogates are spiked into environmental and batch QC samples prior to sample preparation and analysis. Surrogate recoveries are used to evaluate potential bias that could have been introduced by the preparatory procedures and/or the analysis (TCEQ, 2002) and to evaluate matrix interference on a sample-specific basis (USACE, 2001).

The surrogate recoveries for blanks, LCSs, and environmental samples were compared to the surrogate recovery limits listed in TCEQ, 2002.

The surrogate recoveries for blanks and laboratory control samples met the project limits. The project limits for surrogate recovery were met except for 1,2-dichloroethane

(124 to 134) in the associated project samples. Since only one compound was out of range, the data does not need to be qualified (TCEQ, 2002).

Analytical Results

Detected

Concentrations detected below the method quantitation limit (MQL) but above the SQL were estimated values and flagged with a 'J'. The analytes detected in the environmental samples are listed in the data tables.

Non-detected

Non-detected results were reported as less than the value of the sample quantitation limit (SQL). The SQLs for the some analytes exceeded the regulatory limits. The MQLs may be used as the regulatory limit if the most sensitive method available was used and the SQLs are less than the MQLs.

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ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121

2/1/2010

Phyllis Primrose
Alamo 1
10843 Gulfdale
San Antonio , TX - 78216
TEL: (210) 218-3271
FAX: (210) 820-3636 Email:

RE: LHAAP19LFCA

Dear Phyllis Primrose: Order No.: 0909042

Enclosed please find the revised report with updated MDLs for Antimony using low level analysis.

Thank you,

Reddy Gosala

Laboratory Director

Report of Laboratory Analysis

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed clien
Reproduction of this report wholly or in part requires written permission of the client.

NELAP Certificate# T104704367-09-TX

Alamo Analytical Laboratories, LTD

ANALYTICAL REPORT

JOB NUMBER 0909042

Prepared for

Alamo 1

Attn. Phyllis Primrose

Date: September 28,2009

Signature

9/28/09
Date

Name: Reddy Gosala
Title: Lab Director
E-Mail: Alamo_labs@sbcglobal.net

10526 Gulfdale San Antonio, TX 78216

Alamo Analytical Laboratories, LTD

TRRP Data Package Signature Page

Job Number: 0909042

Project Name/Number: LHAAP19LFCA

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

[X] R1 Field Chain-of-Custody Form

[X] R2 Sample Identification Cross-reference;

[X] R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
- a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
- b) dilution factors,
- c) preparation methods,
- d) cleanup methods, and
- e) if required for the project, tentatively identified compounds (TICs).

[X] R4 Surrogate Recovery Data including:
- a) Calculated recovery (%R), and
- b) The Laboratory's surrogate recovery limits.

[X] R5 Test Reports/Summary Forms for Blank Samples;

[X] R6 Test Reports/Summary Forms for Laboratory Control Smaples (LCSs) including:
- a) LCS Spiking amounts,
- b) Calculated %R for each analyte, and
- c) The Laboratory's LCS QC Limits

[X] R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
- a) Samples associated with the MS/MSD clearly identified,
- b) MS/MSD spiking amounts,
- c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
- d) Calculated %Rs and relative percent differences (RPDs), and
- e) The Laboratory's MS/MSD QC Limits

[X] R8 Laboratory Analytical Duplicates (if applicable) Recovery and Precision, including:
- a) The amount of analyte measured in the duplicate,
- b) The calculated RPD, and
- c) the Laboratory's QC Limits for analytical duplicates.

[X] R9 Method Quamtation Limit (MQL) for each analyte for each method and matrix;

[X] R10 Other problems and anomalies

Release Statement: "I am responsible for the release of the data package. This laboratory data package has been reviewed and is complete and technically complaint with the requirements of the methods used, except where noted by the laboratory in the attched exception reports."

Reddy Gosala	Reddy	Laboratory Director	9/28/09
Name (Printed)	Signature	Official Title (Printed)	Date

Alamo Analytical Laboratories, LTD

SAMPLE INFORMATION

Date: 9/28/2009

Job Number.: 0909042

Project Name...: LHAAP19LFCA

Customer.....: Alamo 1

Attn.....: Phyllis Primrose

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
0909042-01A	TB	Water	9/8/2009	0:00	9/11/2009	8:05
0909042-02A	EQB1	Water	9/8/2009	8:45	9/11/2009	8:05
0909042-03A	MW2	Water	9/8/2009	16:40	9/11/2009	8:05
0909042-04A	MW2F	Water	9/8/2009	16:45	9/11/2009	8:05
0909042-05A	EQB2	Water	9/9/2009	10:45	9/11/2009	8:05
0909042-06A	MW3	Water	9/9/2009	12:16	9/11/2009	8:05
0909042-07A	MW3F	Water	9/9/2009	13:00	9/11/2009	8:05
0909042-08A	MW1	Water	9/9/2009	17:54	9/11/2009	8:05

00121885

CHAIN OF CUSTODY RECORD

COC #: 07429

ALAMO ANALYTICAL LABORATORIES LTD.
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San Antonio, Texas 78216
(210) 340-8121 • (800) 572-6955
Fax: (210) 340-8123
www.alamoanalytical.com
admin@alamoanalytical.com

NELAP Certificate # T104704367-08-TX

MUST BE COMPLETED BY CLIENT

Alamo's Client: Alamo 1	Client's P.O.: AR09195
Project Manager: Greg Osuna	Phone #: 210 4041220
Address: 10843 Gulfdale	Fax #:
Project Number: AR09195	Project Name: LHAAP 19 LFCA
Project Location: Karnack, TX	Sampler Signature:

Turnaround time: Standard (7) ☒ (in working days)

RUSH: 1☐ 2☐ 3-5☐ Days (additional charges)

TRRP 13 Report: Yes ☒ No ☐ (additional charges)

Analysis for Permit Compliance: Yes ☐ No ☒

DMR Form Required: Yes ☐ No ☐

LAB ID# (Do not use)	Sampling Date	Sampling Time	Composite	Grab	Matrix	FIELD ID #	FIELD DESCRIPTION	No. of Containers	VOCs	SVOCs	TAL Metals					REMARKS (Preservation, Size/Amount, Etc.)
909042-01	9/08/09			X	Water	TB	Trip Blank	2	X							
909042-02	"	0845		X	water	EQB1	Equipment Blank	7 ~~8~~	X	X	X					PP changed No of
909042-03	"	1640		X	Water	MW2	MW2-unfiltered	7	X	X	X					Containers.
909042-04	"	1645		X	Water	MW2F	MW2-filtered	1			X					*Call Phyllis
909042-05	9/9/09	1045		X	Water	EQB2	Equipment Blank	4	X	X	X					
909042-06		1216			water	MW3	MW3 unfiltered	4	X	X	X					
909042-07	"	1300			"	MW3F	MW3 filtered	4	X	X	X	— call Phyllis				
909042-08	9/9/09	1754			water	MW1	MW1 unfiltered	7	X	X	X					
	9-11-9															

Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Phyllis Primrose	9/10/09	1216	
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Relinquished by: (Signature / Print Name)	Date	Time	Received by: (Signature)
Relinquished by: (Signature / Print Name)	Date 9-11-9 ~~9-11-9~~ @ 9-11-9	Time 0805	Received for Laboratory by: (Signature)

Headspace	N		If Yes, Amt.
Properly Sealed	Y		If No, Explain
Chilled ≤4° C	Y		If No, Temp.

Comments: refer to Work Plan for CRQLs + other LORPs

Phyllis 512 694 9326

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042	**Report Date:**	Date: 9/30/2009		

ClientSampID:	TB	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/8/2009	**Alamo Lab ID:**	0909042-01A	**Time Received:**	8:05
Sample Time:	0:00			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,1-Dichloropropene	563-58-6	< 0.4500			0.4500	1.0000	0.4500	ug/L	9/21/2009 9:10:00 P	VOC1_090921A	1	VKG	9/21/2009 9:10:00 PM
1,1,1,2-Tetrachloroethane	630-20-6	< 1.5000			1.5000	5.0000	1.5000	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 0.0650			0.0650	0.2500	0.0650	ug/L	9/21/2009 9:10:00 P	VOC1_090921A	1	VKG	9/21/2009 9:10:00 PM
1,1,1-Trichloroethane	71-55-6	< 2.3100			2.3100	5.0000	2.3100	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 0.4200			0.4200	1.0000	0.4200	ug/L	9/21/2009 9:10:00 P	VOC1_090921A	1	VKG	9/21/2009 9:10:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 1.6400			1.6400	5.0000	1.6400	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.4000			1.4000	5.0000	1.4000	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,2-Dibromoethane	106-93-4	< 0.0420			0.0420	0.2500	0.0420	ug/L	9/21/2009 9:10:00 P	VOC1_090921A	1	VKG	9/21/2009 9:10:00 PM
1,1-Dichloroethane	74-34-3	< 1.9700			1.9700	5.0000	1.9700	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,2,3-Trichloropropane	96-18-4	< 0.0550			0.0550	0.2500	0.0550	ug/L	9/21/2009 9:10:00 P	VOC1_090921A	1	VKG	9/21/2009 9:10:00 PM
1,1-Dichloroethene	75-35-4	< 1.1000			1.1000	5.0000	1.1000	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,1-Dichloropropene	563-58-6	< 1.4600			1.4600	5.0000	1.4600	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 4.9500			4.9500	10.0000	4.9500	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.3500			1.3500	5.0000	1.3500	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 4.7400			4.7400	10.0000	4.7400	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 1.8900			1.8900	5.0000	1.8900	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.3700			1.3700	5.0000	1.3700	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,2-Dibromoethane	106-93-4	< 1.2800			1.2800	5.0000	1.2800	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7980			0.7980	5.0000	0.7980	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,2-Dichloroethane	107-06-2	< 1.7300			1.7300	5.0000	1.7300	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,2-Dichloropropane	78-87-5	< 1.2600			1.2600	5.0000	1.2600	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 1.6600			1.6600	5.0000	1.6600	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,3-Dichlorobenzene	541-73-1	< 1.0900			1.0900	5.0000	1.0900	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,3-Dichloropropane	142-28-9	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
1,4-Dichlorobenzene	106-46-7	< 1.3400			1.3400	5.0000	1.3400	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
2,2-Dichloropropane	590-20-7	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
2-Butanone	78-93-3	< 8.8300			8.8300	20.0000	8.8300	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
2-Chlorotoluene	95-49-8	< 1.1900			1.1900	5.0000	1.1900	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
2-Hexanone	591-78-6	< 2.0500			2.0500	10.0000	2.0500	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
4-Chlorotoluene	106-43-4	< 1.7000			1.7000	5.0000	1.7000	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
4-Isopropyltoluene	99-87-6	< 1.3100			1.3100	5.0000	1.3100	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.4700			1.4700	10.0000	1.4700	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Acetone	67-64-1	< 10.6000			10.6000	20.0000	10.6000	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Allyl chloride	107-05-1	< 1.2400			1.2400	5.0000	1.2400	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042	**Report Date:**	Date: 9/30/2009		

ClientSampID:	TB	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/8/2009	**Alamo Lab ID:**	0909042-01A	**Time Received:**	8:05
Sample Time:	0:00			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Benzene	71-43-2	< 1.2600			1.2600	5.0000	1.2600	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Bromobenzene	108-86-1	< 1.0000			1.0000	5.0000	1.0000	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Bromochloromethane	74-97-5	< 1.4500			1.4500	5.0000	1.4500	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Bromodichloromethane	75-27-4	< 0.9910			0.9910	5.0000	0.9910	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Bromoform	75-25-2	< 1.4700			1.4700	5.0000	1.4700	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Bromomethane	74-83-9	< 2.5300			2.5300	5.0000	2.5300	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Carbon disulfide	75-15-0	< 1.2500			1.2500	5.0000	1.2500	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Carbon tetrachloride	56-23-5	< 1.7200			1.7200	5.0000	1.7200	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Chlorobenzene	108-90-7	< 1.4000			1.4000	5.0000	1.4000	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Chloroethane	75-00-3	< 2.1400			2.1400	5.0000	2.1400	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Chloroform	67-66-3	< 2.3500			2.3500	5.0000	2.3500	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Chloromethane	74-87-3	< 2.4400			2.4400	10.0000	2.4400	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.8000			1.8000	5.0000	1.8000	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.2900			1.2900	5.0000	1.2900	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Dibromochloromethane	124-48-1	< 1.2900			1.2900	5.0000	1.2900	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Dibromomethane	74-95-3	< 2.3000			2.3000	5.0000	2.3000	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Dichlorodifluoromethane	75-71-8	< 3.9600			3.9600	5.0000	3.9600	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Ethylbenzene	100-41-4	< 1.6000			1.6000	5.0000	1.6000	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Hexachlorobutadiene	87-68-3	< 3.0300			3.0300	5.0000	3.0300	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Iodomethane	74-88-4	< 1.2300			1.2300	5.0000	1.2300	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Isopropylbenzene	98-82-8	< 2.0800			2.0800	5.0000	2.0800	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
m,p-Xylene	179601-23-	< 2.5300			2.5300	10.0000	2.5300	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Methyl tert-butyl ether	1634-04-4	< 2.0100			2.0100	5.0000	2.0100	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Methylene chloride	75-09-2	< 1.3200			1.3200	20.0000	1.3200	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
n-Butylbenzene	104-51-8	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
n-Propylbenzene	103-65-1	< 1.4300			1.4300	5.0000	1.4300	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Naphthalene	91-20-3	< 6.6200			6.6200	15.0000	6.6200	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
o-Xylene	95-47-6	< 1.4800			1.4800	5.0000	1.4800	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
sec-Butylbenzene	135-98-8	< 0.8820			0.8820	5.0000	0.8820	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Styrene	100-42-5	< 1.3300			1.3300	5.0000	1.3300	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
tert-Butylbenzene	98-06-6	< 1.2800			1.2800	5.0000	1.2800	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Tetrachloroethene	127-18-4	< 1.5300			1.5300	5.0000	1.5300	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Toluene	108-88-3	< 1.4800			1.4800	5.0000	1.4800	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.5800			1.5800	5.0000	1.5800	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: TB **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/8/2009 **Alamo Lab ID:** 0909042-01A **Time Received:** 8:05

Sample Time: 0:00 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
trans-1,3-Dichloropropene	10061-02-9	< 1.3100			1.3100	10.0000	1.3100	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Trichloroethene	79-01-6	< 1.3900			1.3900	5.0000	1.3900	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Trichlorofluoromethane	75-69-4	< 1.3700			1.3700	5.0000	1.3700	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM
Vinyl chloride	75-01-4	< 0.9300			0.9300	2.0000	0.9300	ug/L	9/16/2009 5:59:00 P	VOC1_090916A	1	VKG	9/16/2009 5:59:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042	**Report Date:**	Date: 9/30/2009		

ClientSampID:	EQB1	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/8/2009	**Alamo Lab ID:**	0909042-02A	**Time Received:**	8:05
Sample Time:	8:45			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
8270C													
1,2-Diphenylhydrazine	122-66-7	< 0.0860			0.0860	0.5000	0.0860	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrotoluene	121-14-2	< 0.2100			0.2100	1.0000	0.2100	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2,6-Dinitrotoluene	606-20-2	< 0.2100			0.2100	1.0000	0.2100	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
3,3´-Dichlorobenzidine	91-94-1	< 0.3200			0.3200	1.0000	0.3200	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Bromophenylphenylether	101-55-3	< 0.1600			0.1600	1.0000	0.1600	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Chlorophenylphenylether	7005-72-3	< 0.1800			0.1800	1.0000	0.1800	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Acenaphthene	83-32-9	< 0.2200			0.2200	1.0000	0.2200	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzidine	92-87-5	< 0.2300			0.2300	1.0000	0.2300	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)anthracene	56-55-3	< 0.1900			0.1900	0.5000	0.1900	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)pyrene	50-32-8	< 0.1300			0.1300	0.5000	0.1300	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(b)fluoranthene	205-99-2	< 0.1600			0.1600	0.5000	0.1600	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethoxy)methane	111-91-1	< 0.0680			0.0680	0.5000	0.0680	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethyl)ether	111-44-4	< 0.0720			0.0720	0.5000	0.0720	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Dibenz(a,h)anthracene	53-70-3	< 0.1900			0.1900	0.5000	0.1900	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobenzene	118-74-1	< 0.4300			0.4300	1.0000	0.4300	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1400			0.1400	0.5000	0.1400	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2-Naphthylamine	91-59-8	< 0.3600			0.3600	1.0000	0.3600	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodimethylamine	62-75-9	< 0.0920			0.0920	0.5000	0.0920	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0670			0.0670	0.5000	0.0670	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Pentachlorophenol	87-86-5	< 0.7800			0.7800	2.0000	0.7800	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
SW6010B													
Aluminum	7429-90-5	< 0.0217			0.0217	0.0500	0.0217	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Antimony	7440-36-0	< 0.0059			0.0059	0.0250	0.0059	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Arsenic	7440-38-2	< 0.0100			0.0100	0.0500	0.0100	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Barium	7440-39-3	< 0.0150			0.0150	0.0500	0.0150	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Beryllium	7440-41-7	< 0.0008			0.0008	0.0020	0.0008	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Cadmium	7440-43-9	< 0.0008			0.0008	0.0030	0.0008	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Calcium	7440-70-2	0.5000			0.0124	0.1000	0.0124	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Chromium	7440-47-3	< 0.0035			0.0035	0.0100	0.0035	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Cobalt	7440-48-4	< 0.0090			0.0090	0.0200	0.0090	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Copper	7440-50-8	< 0.0220			0.0220	0.0500	0.0220	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Iron	7439-89-6	< 0.0263			0.0263	0.0600	0.0263	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Lead	7439-92-1	< 0.0103			0.0103	0.0300	0.0103	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Magnesium	7439-95-4	0.2000			0.0283	0.1000	0.0283	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042	**Report Date:**	Date: 9/30/2009		

ClientSampID:	EQB1	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/8/2009	**Alamo Lab ID:**	0909042-02A	**Time Received:**	8:05
Sample Time:	8:45			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW6010B													
Manganese	7439-96-5	< 0.0003			0.0003	0.0050	0.0003	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Nickel	7440-02-0	< 0.0031			0.0031	0.0150	0.0031	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Potassium	7440-09-7	1.4300			0.1430	0.5000	0.1430	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Selenium	7782-49-2	< 0.0244			0.0244	0.0500	0.0244	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Silver	7440-22-4	< 0.0035			0.0035	0.0070	0.0035	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Sodium	7440-23-5	< 0.1440			0.1440	0.5000	0.1440	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Thallium	7440-28-0	< 0.0212			0.0212	0.0500	0.0212	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Vanadium	7440-62-2	< 0.0120			0.0120	0.0500	0.0120	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Zinc	7440-66-6	< 0.0080			0.0080	0.0200	0.0080	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.0034			0.0034	0.0100	0.0034	mg/L	9/11/2009	CR6_W -9/11/2009	1	SS	9/11/2009
SW7470A													
Mercury	7439-97-6	< 0.0001			0.0001	0.0002	0.0001	mg/L	9/17/2009 2:00:00 P	HG_R_W -09/17/2009	1	DW	9/17/2009 9:00:00 AM
SW8260B													
1,1-Dichloropropene	563-58-6	< 0.4500			0.4500	1.0000	0.4500	ug/L	9/21/2009 9:47:00 P	VOC1_090921A	1	VKG	9/21/2009 9:47:00 PM
1,1,1,2-Tetrachloroethane	630-20-6	< 1.5000			1.5000	5.0000	1.5000	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 0.0650			0.0650	0.2500	0.0650	ug/L	9/21/2009 9:47:00 P	VOC1_090921A	1	VKG	9/21/2009 9:47:00 PM
1,1,1-Trichloroethane	71-55-6	< 2.3100			2.3100	5.0000	2.3100	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 0.4200			0.4200	1.0000	0.4200	ug/L	9/21/2009 9:47:00 P	VOC1_090921A	1	VKG	9/21/2009 9:47:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 1.6400			1.6400	5.0000	1.6400	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.4000			1.4000	5.0000	1.4000	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,2-Dibromoethane	106-93-4	< 0.0420			0.0420	0.2500	0.0420	ug/L	9/21/2009 9:47:00 P	VOC1_090921A	1	VKG	9/21/2009 9:47:00 PM
1,1-Dichloroethane	74-34-3	< 1.9700			1.9700	5.0000	1.9700	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,2,3-Trichloropropane	96-18-4	< 0.0550			0.0550	0.2500	0.0550	ug/L	9/21/2009 9:47:00 P	VOC1_090921A	1	VKG	9/21/2009 9:47:00 PM
1,1-Dichloroethene	75-35-4	< 1.1000			1.1000	5.0000	1.1000	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,1-Dichloropropene	563-58-6	< 1.4600			1.4600	5.0000	1.4600	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 4.9500			4.9500	10.0000	4.9500	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.3500			1.3500	5.0000	1.3500	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 4.7400			4.7400	10.0000	4.7400	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 1.8900			1.8900	5.0000	1.8900	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.3700			1.3700	5.0000	1.3700	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,2-Dibromoethane	106-93-4	< 1.2800			1.2800	5.0000	1.2800	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7980			0.7980	5.0000	0.7980	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,2-Dichloroethane	107-06-2	< 1.7300			1.7300	5.0000	1.7300	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042			**Report Date:**	Date: 9/30/2009

ClientSampID:	EQB1	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/8/2009	**Alamo Lab ID:**	0909042-02A	**Time Received:**	8:05
Sample Time:	8:45			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,2-Dichloropropane	78-87-5	< 1.2600			1.2600	5.0000	1.2600	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 1.6600			1.6600	5.0000	1.6600	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,3-Dichlorobenzene	541-73-1	< 1.0900			1.0900	5.0000	1.0900	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,3-Dichloropropane	142-28-9	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
1,4-Dichlorobenzene	106-46-7	< 1.3400			1.3400	5.0000	1.3400	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
2,2-Dichloropropane	590-20-7	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
2-Butanone	78-93-3	< 8.8300			8.8300	20.0000	8.8300	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
2-Chlorotoluene	95-49-8	< 1.1900			1.1900	5.0000	1.1900	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
2-Hexanone	591-78-6	< 2.0500			2.0500	10.0000	2.0500	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
4-Chlorotoluene	106-43-4	< 1.7000			1.7000	5.0000	1.7000	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
4-Isopropyltoluene	99-87-6	< 1.3100			1.3100	5.0000	1.3100	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.4700			1.4700	10.0000	1.4700	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Acetone	67-64-1	< 10.6000			10.6000	20.0000	10.6000	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Allyl chloride	107-05-1	< 1.2400			1.2400	5.0000	1.2400	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Benzene	71-43-2	< 1.2600			1.2600	5.0000	1.2600	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Bromobenzene	108-86-1	< 1.0000			1.0000	5.0000	1.0000	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Bromochloromethane	74-97-5	< 1.4500			1.4500	5.0000	1.4500	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Bromodichloromethane	75-27-4	< 0.9910			0.9910	5.0000	0.9910	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Bromoform	75-25-2	< 1.4700			1.4700	5.0000	1.4700	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Bromomethane	74-83-9	< 2.5300			2.5300	5.0000	2.5300	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Carbon disulfide	75-15-0	< 1.2500			1.2500	5.0000	1.2500	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Carbon tetrachloride	56-23-5	< 1.7200			1.7200	5.0000	1.7200	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Chlorobenzene	108-90-7	< 1.4000			1.4000	5.0000	1.4000	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Chloroethane	75-00-3	< 2.1400			2.1400	5.0000	2.1400	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Chloroform	67-66-3	< 2.3500			2.3500	5.0000	2.3500	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Chloromethane	74-87-3	< 2.4400			2.4400	10.0000	2.4400	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.8000			1.8000	5.0000	1.8000	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.2900			1.2900	5.0000	1.2900	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Dibromochloromethane	124-48-1	< 1.2900			1.2900	5.0000	1.2900	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Dibromomethane	74-95-3	< 2.3000			2.3000	5.0000	2.3000	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Dichlorodifluoromethane	75-71-8	< 3.9600			3.9600	5.0000	3.9600	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Ethylbenzene	100-41-4	< 1.6000			1.6000	5.0000	1.6000	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Hexachlorobutadiene	87-68-3	< 3.0300			3.0300	5.0000	3.0300	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Iodomethane	74-88-4	< 1.2300			1.2300	5.0000	1.2300	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042	**Report Date:**	Date: 9/30/2009		

ClientSampID:	EQB1	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/8/2009	**Alamo Lab ID:**	0909042-02A	**Time Received:**	8:05
Sample Time:	8:45			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Isopropylbenzene	98-82-8	< 2.0800			2.0800	5.0000	2.0800	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
m,p-Xylene	179601-23-	< 2.5300			2.5300	10.0000	2.5300	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Methyl tert-butyl ether	1634-04-4	< 2.0100			2.0100	5.0000	2.0100	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Methylene chloride	75-09-2	< 1.3200			1.3200	20.0000	1.3200	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
n-Butylbenzene	104-51-8	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
n-Propylbenzene	103-65-1	< 1.4300			1.4300	5.0000	1.4300	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Naphthalene	91-20-3	< 6.6200			6.6200	15.0000	6.6200	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
o-Xylene	95-47-6	< 1.4800			1.4800	5.0000	1.4800	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
sec-Butylbenzene	135-98-8	< 0.8820			0.8820	5.0000	0.8820	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Styrene	100-42-5	< 1.3300			1.3300	5.0000	1.3300	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
tert-Butylbenzene	98-06-6	< 1.2800			1.2800	5.0000	1.2800	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Tetrachloroethene	127-18-4	< 1.5300			1.5300	5.0000	1.5300	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Toluene	108-88-3	< 1.4800			1.4800	5.0000	1.4800	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.5800			1.5800	5.0000	1.5800	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.3100			1.3100	10.0000	1.3100	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Trichloroethene	79-01-6	< 1.3900			1.3900	5.0000	1.3900	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Trichlorofluoromethane	75-69-4	< 1.3700			1.3700	5.0000	1.3700	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
Vinyl chloride	75-01-4	< 0.9300			0.9300	2.0000	0.9300	ug/L	9/16/2009 6:42:00 P	VOC1_090916A	1	VKG	9/16/2009 6:42:00 PM
SW8270C													
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.6240			0.6240	10.0000	0.6240	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 0.5620			0.5620	10.0000	0.5620	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.5560			0.5560	10.0000	0.5560	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2-Diphenylhydrazine	122-66-7	< 1.0200			1.0200	10.0000	1.0200	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.5440			0.5440	10.0000	0.5440	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.6010			0.6010	10.0000	0.6010	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.8580			0.8580	10.0000	0.8580	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4,5-Trichlorophenol	95-95-4	< 0.7590			0.7590	10.0000	0.7590	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4,6-Trichlorophenol	88-06-2	< 0.7400			0.7400	10.0000	0.7400	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dichlorophenol	120-83-2	< 0.6650			0.6650	10.0000	0.6650	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dimethylphenol	105-67-9	< 0.6970			0.6970	10.0000	0.6970	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrophenol	51-28-5	< 2.1500			2.1500	10.0000	2.1500	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrotoluene	121-14-2	< 0.6630			0.6630	10.0000	0.6630	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,6-Dichlorophenol	87-65-0	< 0.6650			0.6650	10.0000	0.6650	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,6-Dinitrotoluene	606-20-2	< 0.7960			0.7960	10.0000	0.7960	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: EQB1 **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/8/2009 **Alamo Lab ID:** 0909042-02A **Time Received:** 8:05

Sample Time: 8:45 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
2-Chloronaphthalene	91-58-7	< 0.5460			0.5460	10.0000	0.5460	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Chlorophenol	95-57-8	< 0.7980			0.7980	10.0000	0.7980	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Methylnaphthalene	91-57-6	< 0.6030			0.6030	10.0000	0.6030	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Methylphenol	95-48-7	< 0.9460			0.9460	10.0000	0.9460	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Naphthylamine	91-59-8	< 1.6000			1.6000	10.0000	1.6000	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Nitroaniline	88-74-4	< 1.1700			1.1700	10.0000	1.1700	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Nitrophenol	88-75-5	< 0.8240			0.8240	10.0000	0.8240	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3-Nitroaniline	99-09-2	< 1.9900			1.9900	10.0000	1.9900	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4,6-Dinitro-2-methylphenol	534-52-1	< 1.5500			1.5500	10.0000	1.5500	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Aminobiphenyl	92-67-1	< 0.0460			0.0460	0.20000	0.0460	ug/L	9/22/2009 4:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Bromophenyl phenyl ether	101-55-3	< 0.5930			0.5930	10.0000	0.5930	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chloro-3-methylphenol	59-50-7	< 0.7750			0.7750	10.0000	0.7750	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chloroaniline	106-47-8	< 4.0600			4.0600	10.0000	4.0600	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chlorophenyl phenyl ether	7005-72-3	< 1.0300			1.0300	10.0000	1.0300	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Methylphenol	106-44-5	< 0.7710			0.7710	10.0000	0.7710	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Nitroaniline	100-01-6	< 2.4800			2.4800	10.0000	2.4800	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Nitrophenol	100-02-7	< 1.2900			1.2900	10.0000	1.2900	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acenaphthene	83-32-9	< 0.6410			0.6410	10.0000	0.6410	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acenaphthylene	208-96-8	< 0.4910			0.4910	10.0000	0.4910	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acetophenone	98-86-2	< 0.7700			0.7700	10.0000	0.7700	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Aniline	62-53-3	< 0.5780			0.5780	10.0000	0.5780	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Anthracene	120-12-7	< 0.7410			0.7410	10.0000	0.7410	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)anthracene	56-55-3	< 0.7870			0.7870	10.0000	0.7870	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)pyrene	50-32-8	< 0.8470			0.8470	10.0000	0.8470	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(b)fluoranthene	205-99-2	< 1.1200			1.1200	10.0000	1.1200	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(g,h,i)perylene	191-24-2	< 1.1700			1.1700	10.0000	1.1700	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(k)fluoranthene	207-08-9	< 1.1600			1.1600	10.0000	1.1600	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzoic acid	65-85-0	< 2.4900			2.4900	10.0000	2.4900	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzyl alcohol	100-51-6	< 1.2700			1.2700	10.0000	1.2700	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethoxy)methane	111-91-1	< 0.8220			0.8220	10.0000	0.8220	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethyl)ether	111-44-4	< 0.5550			0.5550	10.0000	0.5550	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.6070			0.6070	10.0000	0.6070	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.5800			2.5800	10.0000	2.5800	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Butyl benzyl phthalate	85-68-7	< 2.2500			2.2500	10.0000	2.2500	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042	**Report Date:**	Date: 9/30/2009		
ClientSampID:	EQB1	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/8/2009	**Alamo Lab ID:**	0909042-02A	**Time Received:**	8:05
Sample Time:	8:45			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Carbazole	86-74-8	< 1.5500			1.5500	10.0000	1.5500	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Chrysene	218-01-9	< 0.8260			0.8260	10.0000	0.8260	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Di-n-butyl phthalate	84-74-2	< 1.1000			1.1000	10.0000	1.1000	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Di-n-octyl phthalate	117-84-0	< 3.4100			3.4100	10.0000	3.4100	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dibenz(a,h)anthracene	53-70-3	< 1.2300			1.2300	10.0000	1.2300	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dibenzofuran	132-64-9	< 0.7370			0.7370	10.0000	0.7370	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Diethyl phthalate	84-66-2	< 0.9160			0.9160	10.0000	0.9160	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dimethyl phthalate	131-11-3	< 0.8170			0.8170	10.0000	0.8170	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Diphenylamine	122-39-4	< 0.5770			0.5770	10.0000	0.5770	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Fluoranthene	206-44-0	< 1.0400			1.0400	10.0000	1.0400	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Fluorene	86-73-7	< 0.6380			0.6380	10.0000	0.6380	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobenzene	118-74-1	< 0.2600			0.2600	10.0000	0.2600	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobutadiene	87-68-3	< 0.6050			0.6050	10.0000	0.6050	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorocyclopentadiene	77-47-4	< 1.0200			1.0200	10.0000	1.0200	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachloroethane	67-72-1	< 0.6730			0.6730	10.0000	0.6730	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.0900			1.0900	10.0000	1.0900	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Isophorone	78-59-1	< 0.7460			0.7460	10.0000	0.7460	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodi-n-propylamine	621-64-7	< 0.9660			0.9660	10.0000	0.9660	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodimethylamine	62-75-9	< 0.9730			0.9730	10.0000	0.9730	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodiphenylamine	86-30-6	< 0.5770			0.5770	10.0000	0.5770	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Naphthalene	91-20-3	< 0.7670			0.7670	10.0000	0.7670	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Nitrobenzene	98-95-3	< 0.6380			0.6380	10.0000	0.6380	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachlorobenzene	608-93-5	< 1.2500			1.2500	10.0000	1.2500	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachloronitrobenzene	82-68-8	< 0.5790			0.5790	10.0000	0.5790	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachlorophenol	87-86-5	< 1.0600			1.0600	10.0000	1.0600	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Phenanthrene	85-01-8	< 0.6840			0.6840	10.0000	0.6840	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Phenol	108-95-2	< 0.5090			0.5090	10.0000	0.5090	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pyrene	129-00-0	< 1.9000			1.9000	10.0000	1.9000	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pyridine	110-86-1	< 2.5800			2.5800	10.0000	2.5800	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3,3´-Dichlorobenzidine	91-94-1	< 1.9300			1.9300	10.0000	1.9300	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzidine	92-87-5	< 18.0000			18.0000	50.0000	18.0000	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3-Methylphenol	108-39-4	< 2.2300			2.2300	10.0000	2.2300	ug/L	9/18/2009 7:37:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
SW9010B													
Cyanide	57-12-5	< 0.0062			0.0062	0.0200	0.0062	mg/L	9/17/2009	CN_R_TW -9/17/2009	1	SS	9/17/2009

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TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: MW 2 **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/8/2009 **Alamo Lab ID:** 0909042-03A **Time Received:** 8:05

Sample Time: 16:40 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
8270C													
1,2-Diphenylhydrazine	122-66-7	< 0.0860			0.0860	0.5000	0.0860	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrotoluene	121-14-2	< 0.2100			0.2100	1.0000	0.2100	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2,6-Dinitrotoluene	606-20-2	< 0.2100			0.2100	1.0000	0.2100	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
3,3´-Dichlorobenzidine	91-94-1	< 0.3200			0.3200	1.0000	0.3200	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Bromophenylphenylether	101-55-3	< 0.1600			0.1600	1.0000	0.1600	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Chlorophenylphenylether	7005-72-3	< 0.1800			0.1800	1.0000	0.1800	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Acenaphthene	83-32-9	< 0.2200			0.2200	1.0000	0.2200	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzidine	92-87-5	< 0.2300			0.2300	1.0000	0.2300	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)anthracene	56-55-3	< 0.1900			0.1900	0.5000	0.1900	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)pyrene	50-32-8	< 0.1300			0.1300	0.5000	0.1300	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(b)fluoranthene	205-99-2	< 0.1600			0.1600	0.5000	0.1600	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethoxy)methane	111-91-1	< 0.0680			0.0680	0.5000	0.0680	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethyl)ether	111-44-4	< 0.0720			0.0720	0.5000	0.0720	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Dibenz(a,h)anthracene	53-70-3	< 0.1900			0.1900	0.5000	0.1900	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobenzene	118-74-1	< 0.4300			0.4300	1.0000	0.4300	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1400			0.1400	0.5000	0.1400	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2-Naphthylamine	91-59-8	< 0.3600			0.3600	1.0000	0.3600	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodimethylamine	62-75-9	< 0.0920			0.0920	0.5000	0.0920	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0670			0.0670	0.5000	0.0670	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Pentachlorophenol	87-86-5	< 0.7800			0.7800	2.0000	0.7800	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
SW6010B													
Aluminum	7429-90-5	0.5000			0.0217	0.0500	0.0217	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Antimony	7440-36-0	< 0.0059			0.0059	0.0250	0.0059	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Arsenic	7440-38-2	< 0.0100			0.0100	0.0500	0.0100	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Barium	7440-39-3	0.1440			0.0150	0.0500	0.0150	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Beryllium	7440-41-7	< 0.0008			0.0008	0.0020	0.0008	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Cadmium	7440-43-9	0.0060			0.0008	0.0030	0.0008	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Calcium	7440-70-2	410.0000			0.0124	0.1000	0.0124	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Chromium	7440-47-3	< 0.0035			0.0035	0.0100	0.0035	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Cobalt	7440-48-4	< 0.0090			0.0090	0.0200	0.0090	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Copper	7440-50-8	< 0.0220			0.0220	0.0500	0.0220	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Iron	7439-89-6	0.7100			0.0263	0.0600	0.0263	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Lead	7439-92-1	< 0.0103			0.0103	0.0300	0.0103	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Magnesium	7439-95-4	246.0000			0.0283	0.1000	0.0283	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042	**Report Date:**	Date: 9/30/2009		
ClientSampID:	MW 2	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/8/2009	**Alamo Lab ID:**	0909042-03A	**Time Received:**	8:05
Sample Time:	16:40			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW6010B													
Manganese	7439-96-5	0.1190			0.0003	0.0050	0.0003	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Nickel	7440-02-0	< 0.0031			0.0031	0.0150	0.0031	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Potassium	7440-09-7	36.7000			0.1430	0.5000	0.1430	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Selenium	7782-49-2	< 0.0244			0.0244	0.0500	0.0244	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Silver	7440-22-4	< 0.0035			0.0035	0.0070	0.0035	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Sodium	7440-23-5	1110.0000			0.1440	0.5000	0.1440	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Thallium	7440-28-0	< 0.0212			0.0212	0.0500	0.0212	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Vanadium	7440-62-2	< 0.0120			0.0120	0.0500	0.0120	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Zinc	7440-66-6	< 0.0080			0.0080	0.0200	0.0080	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.0034			0.0034	0.0100	0.0034	mg/L	9/11/2009	CR6_W -9/11/2009	1	SS	9/11/2009
SW7470A													
Mercury	7439-97-6	0.0048			0.0001	0.0002	0.0001	mg/L	9/17/2009 2:00:00 P	HG_R_W -09/17/2009	1	DW	9/17/2009 9:00:00 AM
SW8260B													
1,1-Dichloropropene	563-58-6	< 0.4500			0.4500	1.0000	0.4500	ug/L	9/21/2009 10:24:00 P	VOC1_090921A	1	VKG	9/21/2009 10:24:00 PM
1,1,1,2-Tetrachloroethane	630-20-6	< 1.5000			1.5000	5.0000	1.5000	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 0.0650			0.0650	0.2500	0.0650	ug/L	9/21/2009 10:24:00 P	VOC1_090921A	1	VKG	9/21/2009 10:24:00 PM
1,1,1-Trichloroethane	71-55-6	< 2.3100			2.3100	5.0000	2.3100	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 0.4200			0.4200	1.0000	0.4200	ug/L	9/21/2009 10:24:00 P	VOC1_090921A	1	VKG	9/21/2009 10:24:00 PM
1,1,2,2-Tetrachloroethane	79-34-5	< 1.6400			1.6400	5.0000	1.6400	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.4000			1.4000	5.0000	1.4000	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,2-Dibromoethane	106-93-4	< 0.0420			0.0420	0.2500	0.0420	ug/L	9/21/2009 10:24:00 P	VOC1_090921A	1	VKG	9/21/2009 10:24:00 PM
1,1-Dichloroethane	74-34-3	< 1.9700			1.9700	5.0000	1.9700	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,2,3-Trichloropropane	96-18-4	< 0.0550			0.0550	0.2500	0.0550	ug/L	9/21/2009 10:24:00 P	VOC1_090921A	1	VKG	9/21/2009 10:24:00 PM
1,1-Dichloroethene	75-35-4	< 1.1000			1.1000	5.0000	1.1000	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,1-Dichloropropene	563-58-6	< 1.4600			1.4600	5.0000	1.4600	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 4.9500			4.9500	10.0000	4.9500	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.3500			1.3500	5.0000	1.3500	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 4.7400			4.7400	10.0000	4.7400	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 1.8900			1.8900	5.0000	1.8900	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.3700			1.3700	5.0000	1.3700	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,2-Dibromoethane	106-93-4	< 1.2800			1.2800	5.0000	1.2800	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7980			0.7980	5.0000	0.7980	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,2-Dichloroethane	107-06-2	< 1.7300			1.7300	5.0000	1.7300	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042			**Report Date:**	Date: 9/30/2009

ClientSampID:	MW 2	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/8/2009	**Alamo Lab ID:**	0909042-03A	**Time Received:**	8:05
Sample Time:	16:40			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,2-Dichloropropane	78-87-5	< 1.2600			1.2600	5.0000	1.2600	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 1.6600			1.6600	5.0000	1.6600	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,3-Dichlorobenzene	541-73-1	< 1.0900			1.0900	5.0000	1.0900	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,3-Dichloropropane	142-28-9	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
1,4-Dichlorobenzene	106-46-7	< 1.3400			1.3400	5.0000	1.3400	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
2,2-Dichloropropane	590-20-7	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
2-Butanone	78-93-3	< 8.8300			8.8300	20.0000	8.8300	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
2-Chlorotoluene	95-49-8	< 1.1900			1.1900	5.0000	1.1900	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
2-Hexanone	591-78-6	< 2.0500			2.0500	10.0000	2.0500	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
4-Chlorotoluene	106-43-4	< 1.7000			1.7000	5.0000	1.7000	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
4-Isopropyltoluene	99-87-6	< 1.3100			1.3100	5.0000	1.3100	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.4700			1.4700	10.0000	1.4700	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Acetone	67-64-1	< 10.6000			10.6000	20.0000	10.6000	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Allyl chloride	107-05-1	< 1.2400			1.2400	5.0000	1.2400	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Benzene	71-43-2	< 1.2600			1.2600	5.0000	1.2600	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Bromobenzene	108-86-1	< 1.0000			1.0000	5.0000	1.0000	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Bromochloromethane	74-97-5	< 1.4500			1.4500	5.0000	1.4500	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Bromodichloromethane	75-27-4	< 0.9910			0.9910	5.0000	0.9910	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Bromoform	75-25-2	< 1.4700			1.4700	5.0000	1.4700	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Bromomethane	74-83-9	< 2.5300			2.5300	5.0000	2.5300	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Carbon disulfide	75-15-0	< 1.2500			1.2500	5.0000	1.2500	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Carbon tetrachloride	56-23-5	< 1.7200			1.7200	5.0000	1.7200	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Chlorobenzene	108-90-7	< 1.4000			1.4000	5.0000	1.4000	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Chloroethane	75-00-3	< 2.1400			2.1400	5.0000	2.1400	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Chloroform	67-66-3	< 2.3500			2.3500	5.0000	2.3500	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Chloromethane	74-87-3	< 2.4400			2.4400	10.0000	2.4400	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.8000			1.8000	5.0000	1.8000	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.2900			1.2900	5.0000	1.2900	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Dibromochloromethane	124-48-1	< 1.2900			1.2900	5.0000	1.2900	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Dibromomethane	74-95-3	< 2.3000			2.3000	5.0000	2.3000	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Dichlorodifluoromethane	75-71-8	< 3.9600			3.9600	5.0000	3.9600	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Ethylbenzene	100-41-4	< 1.6000			1.6000	5.0000	1.6000	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Hexachlorobutadiene	87-68-3	< 3.0300			3.0300	5.0000	3.0300	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Iodomethane	74-88-4	< 1.2300			1.2300	5.0000	1.2300	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042	**Report Date:**	Date: 9/30/2009		
ClientSampID:	MW 2	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/8/2009	**Alamo Lab ID:**	0909042-03A	**Time Received:**	8:05
Sample Time:	16:40			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Isopropylbenzene	98-82-8	< 2.0800			2.0800	5.0000	2.0800	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
m,p-Xylene	179601-23-	< 2.5300			2.5300	10.0000	2.5300	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Methyl tert-butyl ether	1634-04-4	< 2.0100			2.0100	5.0000	2.0100	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Methylene chloride	75-09-2	< 1.3200			1.3200	20.0000	1.3200	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
n-Butylbenzene	104-51-8	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
n-Propylbenzene	103-65-1	< 1.4300			1.4300	5.0000	1.4300	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Naphthalene	91-20-3	< 6.6200			6.6200	15.0000	6.6200	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
o-Xylene	95-47-6	< 1.4800			1.4800	5.0000	1.4800	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
sec-Butylbenzene	135-98-8	< 0.8820			0.8820	5.0000	0.8820	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Styrene	100-42-5	< 1.3300			1.3300	5.0000	1.3300	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
tert-Butylbenzene	98-06-6	< 1.2800			1.2800	5.0000	1.2800	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Tetrachloroethene	127-18-4	< 1.5300			1.5300	5.0000	1.5300	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Toluene	108-88-3	< 1.4800			1.4800	5.0000	1.4800	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.5800			1.5800	5.0000	1.5800	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.3100			1.3100	10.0000	1.3100	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Trichloroethene	79-01-6	< 1.3900			1.3900	5.0000	1.3900	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Trichlorofluoromethane	75-69-4	< 1.3700			1.3700	5.0000	1.3700	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
Vinyl chloride	75-01-4	< 0.9300			0.9300	2.0000	0.9300	ug/L	9/16/2009 7:26:00 P	VOC1_090916A	1	VKG	9/16/2009 7:26:00 PM
SW8270C													
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.6240			0.6240	10.0000	0.6240	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 0.5620			0.5620	10.0000	0.5620	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.5560			0.5560	10.0000	0.5560	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2-Diphenylhydrazine	122-66-7	< 1.0200			1.0200	10.0000	1.0200	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.5440			0.5440	10.0000	0.5440	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.6010			0.6010	10.0000	0.6010	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.8580			0.8580	10.0000	0.8580	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4,5-Trichlorophenol	95-95-4	< 0.7590			0.7590	10.0000	0.7590	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4,6-Trichlorophenol	88-06-2	< 0.7400			0.7400	10.0000	0.7400	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dichlorophenol	120-83-2	< 0.6650			0.6650	10.0000	0.6650	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dimethylphenol	105-67-9	< 0.6970			0.6970	10.0000	0.6970	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrophenol	51-28-5	< 2.1500			2.1500	10.0000	2.1500	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrotoluene	121-14-2	< 0.6630			0.6630	10.0000	0.6630	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,6-Dichlorophenol	87-65-0	< 0.6650			0.6650	10.0000	0.6650	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,6-Dinitrotoluene	606-20-2	< 0.7960			0.7960	10.0000	0.7960	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: MW 2 **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/8/2009 **Alamo Lab ID:** 0909042-03A **Time Received:** 8:05

Sample Time: 16:40 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
2-Chloronaphthalene	91-58-7	< 0.5460			0.5460	10.0000	0.5460	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Chlorophenol	95-57-8	< 0.7980			0.7980	10.0000	0.7980	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Methylnaphthalene	91-57-6	< 0.6030			0.6030	10.0000	0.6030	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Methylphenol	95-48-7	< 0.9460			0.9460	10.0000	0.9460	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Naphthylamine	91-59-8	< 1.6000			1.6000	10.0000	1.6000	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Nitroaniline	88-74-4	< 1.1700			1.1700	10.0000	1.1700	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Nitrophenol	88-75-5	< 0.8240			0.8240	10.0000	0.8240	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3-Nitroaniline	99-09-2	< 1.9900			1.9900	10.0000	1.9900	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4,6-Dinitro-2-methylphenol	534-52-1	< 1.5500			1.5500	10.0000	1.5500	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Aminobiphenyl	92-67-1	< 0.0460			0.0460	0.20000	0.0460	ug/L	9/22/2009 5:02:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Bromophenyl phenyl ether	101-55-3	< 0.5930			0.5930	10.0000	0.5930	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chloro-3-methylphenol	59-50-7	< 0.7750			0.7750	10.0000	0.7750	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chloroaniline	106-47-8	< 4.0600			4.0600	10.0000	4.0600	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chlorophenyl phenyl ether	7005-72-3	< 1.0300			1.0300	10.0000	1.0300	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Methylphenol	106-44-5	< 0.7710			0.7710	10.0000	0.7710	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Nitroaniline	100-01-6	< 2.4800			2.4800	10.0000	2.4800	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Nitrophenol	100-02-7	< 1.2900			1.2900	10.0000	1.2900	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acenaphthene	83-32-9	< 0.6410			0.6410	10.0000	0.6410	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acenaphthylene	208-96-8	< 0.4910			0.4910	10.0000	0.4910	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acetophenone	98-86-2	< 0.7700			0.7700	10.0000	0.7700	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Aniline	62-53-3	< 0.5780			0.5780	10.0000	0.5780	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Anthracene	120-12-7	< 0.7410			0.7410	10.0000	0.7410	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)anthracene	56-55-3	< 0.7870			0.7870	10.0000	0.7870	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)pyrene	50-32-8	< 0.8470			0.8470	10.0000	0.8470	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(b)fluoranthene	205-99-2	< 1.1200			1.1200	10.0000	1.1200	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(g,h,i)perylene	191-24-2	< 1.1700			1.1700	10.0000	1.1700	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(k)fluoranthene	207-08-9	< 1.1600			1.1600	10.0000	1.1600	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzoic acid	65-85-0	< 2.4900			2.4900	10.0000	2.4900	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzyl alcohol	100-51-6	< 1.2700			1.2700	10.0000	1.2700	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethoxy)methane	111-91-1	< 0.8220			0.8220	10.0000	0.8220	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethyl)ether	111-44-4	< 0.5550			0.5550	10.0000	0.5550	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.6070			0.6070	10.0000	0.6070	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.5800			2.5800	10.0000	2.5800	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Butyl benzyl phthalate	85-68-7	< 2.2500			2.2500	10.0000	2.2500	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: MW 2 **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/8/2009 **Alamo Lab ID:** 0909042-03A **Time Received:** 8:05

Sample Time: 16:40 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Carbazole	86-74-8	< 1.5500			1.5500	10.0000	1.5500	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Chrysene	218-01-9	< 0.8260			0.8260	10.0000	0.8260	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Di-n-butyl phthalate	84-74-2	< 1.1000			1.1000	10.0000	1.1000	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Di-n-octyl phthalate	117-84-0	< 3.4100			3.4100	10.0000	3.4100	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dibenz(a,h)anthracene	53-70-3	< 1.2300			1.2300	10.0000	1.2300	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dibenzofuran	132-64-9	< 0.7370			0.7370	10.0000	0.7370	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Diethyl phthalate	84-66-2	< 0.9160			0.9160	10.0000	0.9160	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dimethyl phthalate	131-11-3	< 0.8170			0.8170	10.0000	0.8170	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Diphenylamine	122-39-4	< 0.5770			0.5770	10.0000	0.5770	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Fluoranthene	206-44-0	< 1.0400			1.0400	10.0000	1.0400	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Fluorene	86-73-7	< 0.6380			0.6380	10.0000	0.6380	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobenzene	118-74-1	< 0.2600			0.2600	10.0000	0.2600	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobutadiene	87-68-3	< 0.6050			0.6050	10.0000	0.6050	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorocyclopentadiene	77-47-4	< 1.0200			1.0200	10.0000	1.0200	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachloroethane	67-72-1	< 0.6730			0.6730	10.0000	0.6730	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.0900			1.0900	10.0000	1.0900	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Isophorone	78-59-1	< 0.7460			0.7460	10.0000	0.7460	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodi-n-propylamine	621-64-7	< 0.9660			0.9660	10.0000	0.9660	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodimethylamine	62-75-9	< 0.9730			0.9730	10.0000	0.9730	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodiphenylamine	86-30-6	< 0.5770			0.5770	10.0000	0.5770	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Naphthalene	91-20-3	< 0.7670			0.7670	10.0000	0.7670	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Nitrobenzene	98-95-3	< 0.6380			0.6380	10.0000	0.6380	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachlorobenzene	608-93-5	< 1.2500			1.2500	10.0000	1.2500	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachloronitrobenzene	82-68-8	< 0.5790			0.5790	10.0000	0.5790	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachlorophenol	87-86-5	< 1.0600			1.0600	10.0000	1.0600	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Phenanthrene	85-01-8	< 0.6840			0.6840	10.0000	0.6840	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Phenol	108-95-2	< 0.5090			0.5090	10.0000	0.5090	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pyrene	129-00-0	< 1.9000			1.9000	10.0000	1.9000	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pyridine	110-86-1	< 2.5800			2.5800	10.0000	2.5800	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3,3´-Dichlorobenzidine	91-94-1	< 1.9300			1.9300	10.0000	1.9300	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzidine	92-87-5	< 18.0000			18.0000	50.0000	18.0000	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3-Methylphenol	108-39-4	< 2.2300			2.2300	10.0000	2.2300	ug/L	9/18/2009 8:16:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
SW9010B													
Cyanide	57-12-5	< 0.0062			0.0062	0.0200	0.0062	mg/L	9/17/2009	CN_R_TW -9/17/2009	1	SS	9/17/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: MW 2F **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/8/2009 **Alamo Lab ID:** 0909042-04A **Time Received:** 8:05

Sample Time: 16:45 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW6010B													
Aluminum	7429-90-5	< 0.0217			0.0217	0.0500	0.0217	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Antimony	7440-36-0	< 0.0059			0.0059	0.0250	0.0059	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Arsenic	7440-38-2	< 0.0100			0.0100	0.0500	0.0100	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Barium	7440-39-3	0.1340			0.0150	0.0500	0.0150	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Beryllium	7440-41-7	< 0.0008			0.0008	0.0020	0.0008	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Cadmium	7440-43-9	< 0.0008			0.0008	0.0030	0.0008	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Calcium	7440-70-2	402.0000			0.0124	0.1000	0.0124	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Chromium	7440-47-3	< 0.0035			0.0035	0.0100	0.0035	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Cobalt	7440-48-4	< 0.0090			0.0090	0.0200	0.0090	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Copper	7440-50-8	< 0.0220			0.0220	0.0500	0.0220	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Iron	7439-89-6	< 0.0263			0.0263	0.0600	0.0263	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Lead	7439-92-1	< 0.0103			0.0103	0.0300	0.0103	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Magnesium	7439-95-4	242.0000			0.0283	0.1000	0.0283	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Manganese	7439-96-5	0.0920			0.0003	0.0050	0.0003	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Nickel	7440-02-0	< 0.0031			0.0031	0.0150	0.0031	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Potassium	7440-09-7	25.2000			0.1430	0.5000	0.1430	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Selenium	7782-49-2	< 0.0244			0.0244	0.0500	0.0244	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Silver	7440-22-4	< 0.0035			0.0035	0.0070	0.0035	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Sodium	7440-23-5	1120.0000			0.1440	0.5000	0.1440	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Thallium	7440-28-0	< 0.0212			0.0212	0.0500	0.0212	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Vanadium	7440-62-2	< 0.0120			0.0120	0.0500	0.0120	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Zinc	7440-66-6	< 0.0080			0.0080	0.0200	0.0080	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.0034			0.0034	0.0100	0.0034	mg/L	9/11/2009	CR6_W -9/11/2009	1	SS	9/11/2009
SW7470A													
Mercury	7439-97-6	0.0015			0.0001	0.0002	0.0001	mg/L	9/17/2009 2:00:00 P	HG_R_W -09/17/2009	1	DW	9/17/2009 9:00:00 AM
SW9010B													
Cyanide	57-12-5	< 0.0062			0.0062	0.0200	0.0062	mg/L	9/17/2009	CN_R_TW -9/17/2009	1	SS	9/17/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: EQB2 **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/9/2009 **Alamo Lab ID:** 0909042-05A **Time Received:** 8:05

Sample Time: 10:45 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
8270C													
1,2-Diphenylhydrazine	122-66-7	< 0.0860			0.0860	0.5000	0.0860	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrotoluene	121-14-2	< 0.2100			0.2100	1.0000	0.2100	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2,6-Dinitrotoluene	606-20-2	< 0.2100			0.2100	1.0000	0.2100	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
3,3´-Dichlorobenzidine	91-94-1	< 0.3200			0.3200	1.0000	0.3200	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Bromophenylphenylether	101-55-3	< 0.1600			0.1600	1.0000	0.1600	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Chlorophenylphenylether	7005-72-3	< 0.1800			0.1800	1.0000	0.1800	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Acenaphthene	83-32-9	< 0.2200			0.2200	1.0000	0.2200	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzidine	92-87-5	< 0.2300			0.2300	1.0000	0.2300	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)anthracene	56-55-3	< 0.1900			0.1900	0.5000	0.1900	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)pyrene	50-32-8	< 0.1300			0.1300	0.5000	0.1300	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(b)fluoranthene	205-99-2	< 0.1600			0.1600	0.5000	0.1600	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethoxy)methane	111-91-1	< 0.0680			0.0680	0.5000	0.0680	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethyl)ether	111-44-4	< 0.0720			0.0720	0.5000	0.0720	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Dibenz(a,h)anthracene	53-70-3	< 0.1900			0.1900	0.5000	0.1900	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobenzene	118-74-1	< 0.4300			0.4300	1.0000	0.4300	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1400			0.1400	0.5000	0.1400	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2-Naphthylamine	91-59-8	< 0.3600			0.3600	1.0000	0.3600	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodimethylamine	62-75-9	< 0.0920			0.0920	0.5000	0.0920	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0670			0.0670	0.5000	0.0670	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Pentachlorophenol	87-86-5	< 0.7800			0.7800	2.0000	0.7800	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
SW6010B													
Aluminum	7429-90-5	< 0.0217			0.0217	0.0500	0.0217	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Antimony	7440-36-0	< 0.0059			0.0059	0.0250	0.0059	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Arsenic	7440-38-2	< 0.0100			0.0100	0.0500	0.0100	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Barium	7440-39-3	< 0.0150			0.0150	0.0500	0.0150	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Beryllium	7440-41-7	< 0.0008			0.0008	0.0020	0.0008	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Cadmium	7440-43-9	< 0.0008			0.0008	0.0030	0.0008	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Calcium	7440-70-2	0.4000			0.0124	0.1000	0.0124	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Chromium	7440-47-3	< 0.0035			0.0035	0.0100	0.0035	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Cobalt	7440-48-4	< 0.0090			0.0090	0.0200	0.0090	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Copper	7440-50-8	< 0.0220			0.0220	0.0500	0.0220	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Iron	7439-89-6	< 0.0263			0.0263	0.0600	0.0263	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Lead	7439-92-1	< 0.0103			0.0103	0.0300	0.0103	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Magnesium	7439-95-4	< 0.0283			0.0283	0.1000	0.0283	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: EQB2 **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/9/2009 **Alamo Lab ID:** 0909042-05A **Time Received:** 8:05

Sample Time: 10:45 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW6010B													
Manganese	7439-96-5	< 0.0003			0.0003	0.0050	0.0003	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Nickel	7440-02-0	< 0.0031			0.0031	0.0150	0.0031	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Potassium	7440-09-7	0.9500			0.1430	0.5000	0.1430	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Selenium	7782-49-2	< 0.0244			0.0244	0.0500	0.0244	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Silver	7440-22-4	< 0.0035			0.0035	0.0070	0.0035	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Sodium	7440-23-5	9.4900			0.1440	0.5000	0.1440	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Thallium	7440-28-0	< 0.0212			0.0212	0.0500	0.0212	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Vanadium	7440-62-2	0.0500			0.0120	0.0500	0.0120	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Zinc	7440-66-6	< 0.0080			0.0080	0.0200	0.0080	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.0034			0.0034	0.0100	0.0034	mg/L	9/11/2009	CR6_W -9/11/2009	1	SS	9/11/2009
SW7470A													
Mercury	7439-97-6	< 0.0001			0.0001	0.0002	0.0001	mg/L	9/17/2009 2:00:00 P	HG_R_W -09/17/2009	1	DW	9/17/2009 9:00:00 AM
SW8260B													
1,1-Dichloropropene	563-58-6	< 0.4500			0.4500	1.0000	0.4500	ug/L	9/22/2009 12:14:00 A	VOC1_090921A	1	VKG	9/22/2009 12:14:00 AM
1,1,1,2-Tetrachloroethane	630-20-6	< 1.5000			1.5000	5.0000	1.5000	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 0.0650			0.0650	0.2500	0.0650	ug/L	9/22/2009 12:14:00 A	VOC1_090921A	1	VKG	9/22/2009 12:14:00 AM
1,1,1-Trichloroethane	71-55-6	< 2.3100			2.3100	5.0000	2.3100	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 0.4200			0.4200	1.0000	0.4200	ug/L	9/22/2009 12:14:00 A	VOC1_090921A	1	VKG	9/22/2009 12:14:00 AM
1,1,2,2-Tetrachloroethane	79-34-5	< 1.6400			1.6400	5.0000	1.6400	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.4000			1.4000	5.0000	1.4000	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,2-Dibromoethane	106-93-4	< 0.0420			0.0420	0.2500	0.0420	ug/L	9/22/2009 12:14:00 A	VOC1_090921A	1	VKG	9/22/2009 12:14:00 AM
1,1-Dichloroethane	74-34-3	< 1.9700			1.9700	5.0000	1.9700	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,2,3-Trichloropropane	96-18-4	< 0.0550			0.0550	0.2500	0.0550	ug/L	9/22/2009 12:14:00 A	VOC1_090921A	1	VKG	9/22/2009 12:14:00 AM
1,1-Dichloroethene	75-35-4	< 1.1000			1.1000	5.0000	1.1000	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,1-Dichloropropene	563-58-6	< 1.4600			1.4600	5.0000	1.4600	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 4.9500			4.9500	10.0000	4.9500	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.3500			1.3500	5.0000	1.3500	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 4.7400			4.7400	10.0000	4.7400	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 1.8900			1.8900	5.0000	1.8900	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.3700			1.3700	5.0000	1.3700	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,2-Dibromoethane	106-93-4	< 1.2800			1.2800	5.0000	1.2800	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7980			0.7980	5.0000	0.7980	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,2-Dichloroethane	107-06-2	< 1.7300			1.7300	5.0000	1.7300	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042			**Report Date:**	Date: 9/30/2009

ClientSampID:	EQB2	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/9/2009	**Alamo Lab ID:**	0909042-05A	**Time Received:**	8:05
Sample Time:	10:45			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,2-Dichloropropane	78-87-5	< 1.2600			1.2600	5.0000	1.2600	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 1.6600			1.6600	5.0000	1.6600	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,3-Dichlorobenzene	541-73-1	< 1.0900			1.0900	5.0000	1.0900	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,3-Dichloropropane	142-28-9	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
1,4-Dichlorobenzene	106-46-7	< 1.3400			1.3400	5.0000	1.3400	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
2,2-Dichloropropane	590-20-7	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
2-Butanone	78-93-3	< 8.8300			8.8300	20.0000	8.8300	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
2-Chlorotoluene	95-49-8	< 1.1900			1.1900	5.0000	1.1900	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
2-Hexanone	591-78-6	< 2.0500			2.0500	10.0000	2.0500	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
4-Chlorotoluene	106-43-4	< 1.7000			1.7000	5.0000	1.7000	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
4-Isopropyltoluene	99-87-6	< 1.3100			1.3100	5.0000	1.3100	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.4700			1.4700	10.0000	1.4700	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Acetone	67-64-1	< 10.6000			10.6000	20.0000	10.6000	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Allyl chloride	107-05-1	< 1.2400			1.2400	5.0000	1.2400	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Benzene	71-43-2	< 1.2600			1.2600	5.0000	1.2600	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Bromobenzene	108-86-1	< 1.0000			1.0000	5.0000	1.0000	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Bromochloromethane	74-97-5	< 1.4500			1.4500	5.0000	1.4500	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Bromodichloromethane	75-27-4	< 0.9910			0.9910	5.0000	0.9910	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Bromoform	75-25-2	< 1.4700			1.4700	5.0000	1.4700	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Bromomethane	74-83-9	< 2.5300			2.5300	5.0000	2.5300	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Carbon disulfide	75-15-0	< 1.2500			1.2500	5.0000	1.2500	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Carbon tetrachloride	56-23-5	< 1.7200			1.7200	5.0000	1.7200	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Chlorobenzene	108-90-7	< 1.4000			1.4000	5.0000	1.4000	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Chloroethane	75-00-3	< 2.1400			2.1400	5.0000	2.1400	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Chloroform	67-66-3	< 2.3500			2.3500	5.0000	2.3500	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Chloromethane	74-87-3	< 2.4400			2.4400	10.0000	2.4400	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.8000			1.8000	5.0000	1.8000	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.2900			1.2900	5.0000	1.2900	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Dibromochloromethane	124-48-1	< 1.2900			1.2900	5.0000	1.2900	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Dibromomethane	74-95-3	< 2.3000			2.3000	5.0000	2.3000	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Dichlorodifluoromethane	75-71-8	< 3.9600			3.9600	5.0000	3.9600	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Ethylbenzene	100-41-4	< 1.6000			1.6000	5.0000	1.6000	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Hexachlorobutadiene	87-68-3	< 3.0300			3.0300	5.0000	3.0300	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Iodomethane	74-88-4	< 1.2300			1.2300	5.0000	1.2300	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042			**Report Date:**	Date: 9/30/2009

ClientSampID:	EQB2	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/9/2009	**Alamo Lab ID:**	0909042-05A	**Time Received:**	8:05
Sample Time:	10:45			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Isopropylbenzene	98-82-8	< 2.0800			2.0800	5.0000	2.0800	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
m,p-Xylene	179601-23-	< 2.5300			2.5300	10.0000	2.5300	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Methyl tert-butyl ether	1634-04-4	< 2.0100			2.0100	5.0000	2.0100	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Methylene chloride	75-09-2	< 1.3200			1.3200	20.0000	1.3200	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
n-Butylbenzene	104-51-8	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
n-Propylbenzene	103-65-1	< 1.4300			1.4300	5.0000	1.4300	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Naphthalene	91-20-3	< 6.6200			6.6200	15.0000	6.6200	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
o-Xylene	95-47-6	< 1.4800			1.4800	5.0000	1.4800	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
sec-Butylbenzene	135-98-8	< 0.8820			0.8820	5.0000	0.8820	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Styrene	100-42-5	< 1.3300			1.3300	5.0000	1.3300	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
tert-Butylbenzene	98-06-6	< 1.2800			1.2800	5.0000	1.2800	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Tetrachloroethene	127-18-4	< 1.5300			1.5300	5.0000	1.5300	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Toluene	108-88-3	< 1.4800			1.4800	5.0000	1.4800	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.5800			1.5800	5.0000	1.5800	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.3100			1.3100	10.0000	1.3100	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Trichloroethene	79-01-6	< 1.3900			1.3900	5.0000	1.3900	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Trichlorofluoromethane	75-69-4	< 1.3700			1.3700	5.0000	1.3700	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
Vinyl chloride	75-01-4	< 0.9300			0.9300	2.0000	0.9300	ug/L	9/16/2009 9:37:00 P	VOC1_090916A	1	VKG	9/16/2009 9:37:00 PM
SW8270C													
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.6240			0.6240	10.0000	0.6240	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 0.5620			0.5620	10.0000	0.5620	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.5560			0.5560	10.0000	0.5560	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2-Diphenylhydrazine	122-66-7	< 1.0200			1.0200	10.0000	1.0200	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.5440			0.5440	10.0000	0.5440	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.6010			0.6010	10.0000	0.6010	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.8580			0.8580	10.0000	0.8580	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4,5-Trichlorophenol	95-95-4	< 0.7590			0.7590	10.0000	0.7590	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4,6-Trichlorophenol	88-06-2	< 0.7400			0.7400	10.0000	0.7400	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dichlorophenol	120-83-2	< 0.6650			0.6650	10.0000	0.6650	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dimethylphenol	105-67-9	< 0.6970			0.6970	10.0000	0.6970	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrophenol	51-28-5	< 2.1500			2.1500	10.0000	2.1500	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrotoluene	121-14-2	< 0.6630			0.6630	10.0000	0.6630	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,6-Dichlorophenol	87-65-0	< 0.6650			0.6650	10.0000	0.6650	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,6-Dinitrotoluene	606-20-2	< 0.7960			0.7960	10.0000	0.7960	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042	**Report Date:**	Date: 9/30/2009		
ClientSampID:	EQB2	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/9/2009	**Alamo Lab ID:**	0909042-05A	**Time Received:**	8:05
Sample Time:	10:45			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
2-Chloronaphthalene	91-58-7	< 0.5460			0.5460	10.0000	0.5460	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Chlorophenol	95-57-8	< 0.7980			0.7980	10.0000	0.7980	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Methylnaphthalene	91-57-6	< 0.6030			0.6030	10.0000	0.6030	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Methylphenol	95-48-7	< 0.9460			0.9460	10.0000	0.9460	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Naphthylamine	91-59-8	< 1.6000			1.6000	10.0000	1.6000	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Nitroaniline	88-74-4	< 1.1700			1.1700	10.0000	1.1700	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Nitrophenol	88-75-5	< 0.8240			0.8240	10.0000	0.8240	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3-Nitroaniline	99-09-2	< 1.9900			1.9900	10.0000	1.9900	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4,6-Dinitro-2-methylphenol	534-52-1	< 1.5500			1.5500	10.0000	1.5500	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Aminobiphenyl	92-67-1	< 0.0460			0.0460	0.20000	0.0460	ug/L	9/22/2009 6:22:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Bromophenyl phenyl ether	101-55-3	< 0.5930			0.5930	10.0000	0.5930	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chloro-3-methylphenol	59-50-7	< 0.7750			0.7750	10.0000	0.7750	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chloroaniline	106-47-8	< 4.0600			4.0600	10.0000	4.0600	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chlorophenyl phenyl ether	7005-72-3	< 1.0300			1.0300	10.0000	1.0300	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Methylphenol	106-44-5	< 0.7710			0.7710	10.0000	0.7710	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Nitroaniline	100-01-6	< 2.4800			2.4800	10.0000	2.4800	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Nitrophenol	100-02-7	< 1.2900			1.2900	10.0000	1.2900	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acenaphthene	83-32-9	< 0.6410			0.6410	10.0000	0.6410	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acenaphthylene	208-96-8	< 0.4910			0.4910	10.0000	0.4910	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acetophenone	98-86-2	< 0.7700			0.7700	10.0000	0.7700	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Aniline	62-53-3	< 0.5780			0.5780	10.0000	0.5780	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Anthracene	120-12-7	< 0.7410			0.7410	10.0000	0.7410	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)anthracene	56-55-3	< 0.7870			0.7870	10.0000	0.7870	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)pyrene	50-32-8	< 0.8470			0.8470	10.0000	0.8470	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(b)fluoranthene	205-99-2	< 1.1200			1.1200	10.0000	1.1200	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(g,h,i)perylene	191-24-2	< 1.1700			1.1700	10.0000	1.1700	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(k)fluoranthene	207-08-9	< 1.1600			1.1600	10.0000	1.1600	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzoic acid	65-85-0	< 2.4900			2.4900	10.0000	2.4900	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzyl alcohol	100-51-6	< 1.2700			1.2700	10.0000	1.2700	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethoxy)methane	111-91-1	< 0.8220			0.8220	10.0000	0.8220	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethyl)ether	111-44-4	< 0.5550			0.5550	10.0000	0.5550	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.6070			0.6070	10.0000	0.6070	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.5800			2.5800	10.0000	2.5800	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Butyl benzyl phthalate	85-68-7	< 2.2500			2.2500	10.0000	2.2500	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042	**Report Date:**	Date: 9/30/2009		
ClientSampID:	EQB2	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/9/2009	**Alamo Lab ID:**	0909042-05A	**Time Received:**	8:05
Sample Time:	10:45			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Carbazole	86-74-8	< 1.5500			1.5500	10.0000	1.5500	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Chrysene	218-01-9	< 0.8260			0.8260	10.0000	0.8260	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Di-n-butyl phthalate	84-74-2	< 1.1000			1.1000	10.0000	1.1000	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Di-n-octyl phthalate	117-84-0	< 3.4100			3.4100	10.0000	3.4100	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dibenz(a,h)anthracene	53-70-3	< 1.2300			1.2300	10.0000	1.2300	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dibenzofuran	132-64-9	< 0.7370			0.7370	10.0000	0.7370	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Diethyl phthalate	84-66-2	< 0.9160			0.9160	10.0000	0.9160	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dimethyl phthalate	131-11-3	< 0.8170			0.8170	10.0000	0.8170	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Diphenylamine	122-39-4	< 0.5770			0.5770	10.0000	0.5770	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Fluoranthene	206-44-0	< 1.0400			1.0400	10.0000	1.0400	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Fluorene	86-73-7	< 0.6380			0.6380	10.0000	0.6380	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobenzene	118-74-1	< 0.2600			0.2600	10.0000	0.2600	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobutadiene	87-68-3	< 0.6050			0.6050	10.0000	0.6050	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorocyclopentadiene	77-47-4	< 1.0200			1.0200	10.0000	1.0200	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachloroethane	67-72-1	< 0.6730			0.6730	10.0000	0.6730	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.0900			1.0900	10.0000	1.0900	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Isophorone	78-59-1	< 0.7460			0.7460	10.0000	0.7460	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodi-n-propylamine	621-64-7	< 0.9660			0.9660	10.0000	0.9660	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodimethylamine	62-75-9	< 0.9730			0.9730	10.0000	0.9730	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodiphenylamine	86-30-6	< 0.5770			0.5770	10.0000	0.5770	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Naphthalene	91-20-3	< 0.7670			0.7670	10.0000	0.7670	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Nitrobenzene	98-95-3	< 0.6380			0.6380	10.0000	0.6380	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachlorobenzene	608-93-5	< 1.2500			1.2500	10.0000	1.2500	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachloronitrobenzene	82-68-8	< 0.5790			0.5790	10.0000	0.5790	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachlorophenol	87-86-5	< 1.0600			1.0600	10.0000	1.0600	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Phenanthrene	85-01-8	< 0.6840			0.6840	10.0000	0.6840	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Phenol	108-95-2	< 0.5090			0.5090	10.0000	0.5090	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pyrene	129-00-0	< 1.9000			1.9000	10.0000	1.9000	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pyridine	110-86-1	< 2.5800			2.5800	10.0000	2.5800	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3,3´-Dichlorobenzidine	91-94-1	< 1.9300			1.9300	10.0000	1.9300	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzidine	92-87-5	< 18.0000			18.0000	50.0000	18.0000	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3-Methylphenol	108-39-4	< 2.2300			2.2300	10.0000	2.2300	ug/L	9/18/2009 8:54:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
SW9010B													
Cyanide	57-12-5	< 0.0062			0.0062	0.0200	0.0062	mg/L	9/17/2009	CN_R_TW -9/17/2009	1	SS	9/17/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: MW 3 **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/9/2009 **Alamo Lab ID:** 0909042-06A **Time Received:** 8:05

Sample Time: 12:16 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
8270C													
1,2-Diphenylhydrazine	122-66-7	< 0.0860			0.0860	0.5000	0.0860	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrotoluene	121-14-2	< 0.2100			0.2100	1.0000	0.2100	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2,6-Dinitrotoluene	606-20-2	< 0.2100			0.2100	1.0000	0.2100	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
3,3´-Dichlorobenzidine	91-94-1	< 0.3200			0.3200	1.0000	0.3200	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Bromophenylphenylether	101-55-3	< 0.1600			0.1600	1.0000	0.1600	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Chlorophenylphenylether	7005-72-3	< 0.1800			0.1800	1.0000	0.1800	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Acenaphthene	83-32-9	< 0.2200			0.2200	1.0000	0.2200	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzidine	92-87-5	< 0.2300			0.2300	1.0000	0.2300	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)anthracene	56-55-3	< 0.1900			0.1900	0.5000	0.1900	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)pyrene	50-32-8	< 0.1300			0.1300	0.5000	0.1300	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(b)fluoranthene	205-99-2	< 0.1600			0.1600	0.5000	0.1600	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethoxy)methane	111-91-1	< 0.0680			0.0680	0.5000	0.0680	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethyl)ether	111-44-4	< 0.0720			0.0720	0.5000	0.0720	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Dibenz(a,h)anthracene	53-70-3	< 0.1900			0.1900	0.5000	0.1900	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobenzene	118-74-1	< 0.4300			0.4300	1.0000	0.4300	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1400			0.1400	0.5000	0.1400	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2-Naphthylamine	91-59-8	< 0.3600			0.3600	1.0000	0.3600	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodimethylamine	62-75-9	< 0.0920			0.0920	0.5000	0.0920	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0670			0.0670	0.5000	0.0670	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Pentachlorophenol	87-86-5	< 0.7800			0.7800	2.0000	0.7800	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
SW6010B													
Aluminum	7429-90-5	0.1300			0.0217	0.0500	0.0217	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Antimony	7440-36-0	< 0.0059			0.0059	0.0250	0.0059	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Arsenic	7440-38-2	< 0.0100			0.0100	0.0500	0.0100	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Barium	7440-39-3	0.0950			0.0150	0.0500	0.0150	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Beryllium	7440-41-7	< 0.0008			0.0008	0.0020	0.0008	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Cadmium	7440-43-9	< 0.0008			0.0008	0.0030	0.0008	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Calcium	7440-70-2	304.0000			0.0124	0.1000	0.0124	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Chromium	7440-47-3	< 0.0035			0.0035	0.0100	0.0035	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Cobalt	7440-48-4	< 0.0090			0.0090	0.0200	0.0090	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Copper	7440-50-8	< 0.0220			0.0220	0.0500	0.0220	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Iron	7439-89-6	0.7300			0.0263	0.0600	0.0263	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Lead	7439-92-1	< 0.0103			0.0103	0.0300	0.0103	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Magnesium	7439-95-4	199.0000			0.0283	0.1000	0.0283	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042			**Report Date:**	Date: 9/30/2009

ClientSampID:	MW 3	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/9/2009	**Alamo Lab ID:**	0909042-06A	**Time Received:**	8:05
Sample Time:	12:16			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW6010B													
Manganese	7439-96-5	0.2650			0.0003	0.0050	0.0003	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Nickel	7440-02-0	< 0.0031			0.0031	0.0150	0.0031	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Potassium	7440-09-7	16.8000			0.1430	0.5000	0.1430	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Selenium	7782-49-2	< 0.0244			0.0244	0.0500	0.0244	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Silver	7440-22-4	< 0.0035			0.0035	0.0070	0.0035	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Sodium	7440-23-5	705.0000			0.1440	0.5000	0.1440	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Thallium	7440-28-0	< 0.0212			0.0212	0.0500	0.0212	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Vanadium	7440-62-2	< 0.0120			0.0120	0.0500	0.0120	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Zinc	7440-66-6	0.4900			0.0080	0.0200	0.0080	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.0034			0.0034	0.0100	0.0034	mg/L	9/11/2009	CR6_W -9/11/2009	1	SS	9/11/2009
SW7470A													
Mercury	7439-97-6	< 0.0001			0.0001	0.0002	0.0001	mg/L	9/17/2009 2:00:00 P	HG_R_W -09/17/2009	1	DW	9/17/2009 9:00:00 AM
SW8260B													
1,1-Dichloropropene	563-58-6	< 0.4500			0.4500	1.0000	0.4500	ug/L	9/22/2009 12:51:00 A	VOC1_090921A	1	VKG	9/22/2009 12:51:00 AM
1,1,1,2-Tetrachloroethane	630-20-6	< 1.5000			1.5000	5.0000	1.5000	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 0.0650			0.0650	0.2500	0.0650	ug/L	9/22/2009 12:51:00 A	VOC1_090921A	1	VKG	9/22/2009 12:51:00 AM
1,1,1-Trichloroethane	71-55-6	< 2.3100			2.3100	5.0000	2.3100	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 0.4200			0.4200	1.0000	0.4200	ug/L	9/22/2009 12:51:00 A	VOC1_090921A	1	VKG	9/22/2009 12:51:00 AM
1,1,2,2-Tetrachloroethane	79-34-5	< 1.6400			1.6400	5.0000	1.6400	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.4000			1.4000	5.0000	1.4000	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,2-Dibromoethane	106-93-4	< 0.0420			0.0420	0.2500	0.0420	ug/L	9/22/2009 12:51:00 A	VOC1_090921A	1	VKG	9/22/2009 12:51:00 AM
1,1-Dichloroethane	74-34-3	< 1.9700			1.9700	5.0000	1.9700	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,2,3-Trichloropropane	96-18-4	< 0.0550			0.0550	0.2500	0.0550	ug/L	9/22/2009 12:51:00 A	VOC1_090921A	1	VKG	9/22/2009 12:51:00 AM
1,1-Dichloroethene	75-35-4	< 1.1000			1.1000	5.0000	1.1000	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,1-Dichloropropene	563-58-6	< 1.4600			1.4600	5.0000	1.4600	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 4.9500			4.9500	10.0000	4.9500	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.3500			1.3500	5.0000	1.3500	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 4.7400			4.7400	10.0000	4.7400	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 1.8900			1.8900	5.0000	1.8900	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.3700			1.3700	5.0000	1.3700	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,2-Dibromoethane	106-93-4	< 1.2800			1.2800	5.0000	1.2800	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7980			0.7980	5.0000	0.7980	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,2-Dichloroethane	107-06-2	< 1.7300			1.7300	5.0000	1.7300	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042			**Report Date:**	Date: 9/30/2009

ClientSampID:	MW 3	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/9/2009	**Alamo Lab ID:**	0909042-06A	**Time Received:**	8:05
Sample Time:	12:16			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,2-Dichloropropane	78-87-5	< 1.2600			1.2600	5.0000	1.2600	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 1.6600			1.6600	5.0000	1.6600	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,3-Dichlorobenzene	541-73-1	< 1.0900			1.0900	5.0000	1.0900	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,3-Dichloropropane	142-28-9	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
1,4-Dichlorobenzene	106-46-7	< 1.3400			1.3400	5.0000	1.3400	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
2,2-Dichloropropane	590-20-7	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
2-Butanone	78-93-3	< 8.8300			8.8300	20.0000	8.8300	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
2-Chlorotoluene	95-49-8	< 1.1900			1.1900	5.0000	1.1900	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
2-Hexanone	591-78-6	< 2.0500			2.0500	10.0000	2.0500	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
4-Chlorotoluene	106-43-4	< 1.7000			1.7000	5.0000	1.7000	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
4-Isopropyltoluene	99-87-6	< 1.3100			1.3100	5.0000	1.3100	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.4700			1.4700	10.0000	1.4700	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Acetone	67-64-1	< 10.6000			10.6000	20.0000	10.6000	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Allyl chloride	107-05-1	< 1.2400			1.2400	5.0000	1.2400	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Benzene	71-43-2	< 1.2600			1.2600	5.0000	1.2600	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Bromobenzene	108-86-1	< 1.0000			1.0000	5.0000	1.0000	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Bromochloromethane	74-97-5	< 1.4500			1.4500	5.0000	1.4500	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Bromodichloromethane	75-27-4	< 0.9910			0.9910	5.0000	0.9910	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Bromoform	75-25-2	< 1.4700			1.4700	5.0000	1.4700	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Bromomethane	74-83-9	< 2.5300			2.5300	5.0000	2.5300	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Carbon disulfide	75-15-0	< 1.2500			1.2500	5.0000	1.2500	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Carbon tetrachloride	56-23-5	< 1.7200			1.7200	5.0000	1.7200	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Chlorobenzene	108-90-7	< 1.4000			1.4000	5.0000	1.4000	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Chloroethane	75-00-3	< 2.1400			2.1400	5.0000	2.1400	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Chloroform	67-66-3	< 2.3500			2.3500	5.0000	2.3500	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Chloromethane	74-87-3	< 2.4400			2.4400	10.0000	2.4400	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.8000			1.8000	5.0000	1.8000	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.2900			1.2900	5.0000	1.2900	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Dibromochloromethane	124-48-1	< 1.2900			1.2900	5.0000	1.2900	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Dibromomethane	74-95-3	< 2.3000			2.3000	5.0000	2.3000	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Dichlorodifluoromethane	75-71-8	< 3.9600			3.9600	5.0000	3.9600	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Ethylbenzene	100-41-4	< 1.6000			1.6000	5.0000	1.6000	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Hexachlorobutadiene	87-68-3	< 3.0300			3.0300	5.0000	3.0300	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Iodomethane	74-88-4	< 1.2300			1.2300	5.0000	1.2300	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM

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TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042			**Report Date:**	Date: 9/30/2009

ClientSampID:	MW 3	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/9/2009	**Alamo Lab ID:**	0909042-06A	**Time Received:**	8:05
Sample Time:	12:16			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Isopropylbenzene	98-82-8	< 2.0800			2.0800	5.0000	2.0800	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
m,p-Xylene	179601-23-	< 2.5300			2.5300	10.0000	2.5300	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Methyl tert-butyl ether	1634-04-4	< 2.0100			2.0100	5.0000	2.0100	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Methylene chloride	75-09-2	< 1.3200			1.3200	20.0000	1.3200	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
n-Butylbenzene	104-51-8	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
n-Propylbenzene	103-65-1	< 1.4300			1.4300	5.0000	1.4300	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Naphthalene	91-20-3	< 6.6200			6.6200	15.0000	6.6200	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
o-Xylene	95-47-6	< 1.4800			1.4800	5.0000	1.4800	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
sec-Butylbenzene	135-98-8	< 0.8820			0.8820	5.0000	0.8820	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Styrene	100-42-5	< 1.3300			1.3300	5.0000	1.3300	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
tert-Butylbenzene	98-06-6	< 1.2800			1.2800	5.0000	1.2800	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Tetrachloroethene	127-18-4	< 1.5300			1.5300	5.0000	1.5300	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Toluene	108-88-3	< 1.4800			1.4800	5.0000	1.4800	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.5800			1.5800	5.0000	1.5800	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.3100			1.3100	10.0000	1.3100	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Trichloroethene	79-01-6	< 1.3900			1.3900	5.0000	1.3900	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Trichlorofluoromethane	75-69-4	< 1.3700			1.3700	5.0000	1.3700	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
Vinyl chloride	75-01-4	< 0.9300			0.9300	2.0000	0.9300	ug/L	9/16/2009 10:21:00 P	VOC1_090916A	1	VKG	9/16/2009 10:21:00 PM
SW8270C													
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.6240			0.6240	10.0000	0.6240	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 0.5620			0.5620	10.0000	0.5620	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.5560			0.5560	10.0000	0.5560	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2-Diphenylhydrazine	122-66-7	< 1.0200			1.0200	10.0000	1.0200	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.5440			0.5440	10.0000	0.5440	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.6010			0.6010	10.0000	0.6010	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.8580			0.8580	10.0000	0.8580	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4,5-Trichlorophenol	95-95-4	< 0.7590			0.7590	10.0000	0.7590	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4,6-Trichlorophenol	88-06-2	< 0.7400			0.7400	10.0000	0.7400	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dichlorophenol	120-83-2	< 0.6650			0.6650	10.0000	0.6650	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dimethylphenol	105-67-9	< 0.6970			0.6970	10.0000	0.6970	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrophenol	51-28-5	< 2.1500			2.1500	10.0000	2.1500	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrotoluene	121-14-2	< 0.6630			0.6630	10.0000	0.6630	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,6-Dichlorophenol	87-65-0	< 0.6650			0.6650	10.0000	0.6650	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,6-Dinitrotoluene	606-20-2	< 0.7960			0.7960	10.0000	0.7960	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042	**Report Date:**	Date: 9/30/2009		

ClientSampID:	MW 3	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/9/2009	**Alamo Lab ID:**	0909042-06A	**Time Received:**	8:05
Sample Time:	12:16			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
2-Chloronaphthalene	91-58-7	< 0.5460			0.5460	10.0000	0.5460	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Chlorophenol	95-57-8	< 0.7980			0.7980	10.0000	0.7980	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Methylnaphthalene	91-57-6	< 0.6030			0.6030	10.0000	0.6030	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Methylphenol	95-48-7	< 0.9460			0.9460	10.0000	0.9460	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Naphthylamine	91-59-8	< 1.6000			1.6000	10.0000	1.6000	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Nitroaniline	88-74-4	< 1.1700			1.1700	10.0000	1.1700	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Nitrophenol	88-75-5	< 0.8240			0.8240	10.0000	0.8240	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3-Nitroaniline	99-09-2	< 1.9900			1.9900	10.0000	1.9900	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4,6-Dinitro-2-methylphenol	534-52-1	< 1.5500			1.5500	10.0000	1.5500	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Aminobiphenyl	92-67-1	< 0.0460			0.0460	0.20000	0.0460	ug/L	9/22/2009 7:07:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Bromophenyl phenyl ether	101-55-3	< 0.5930			0.5930	10.0000	0.5930	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chloro-3-methylphenol	59-50-7	< 0.7750			0.7750	10.0000	0.7750	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chloroaniline	106-47-8	< 4.0600			4.0600	10.0000	4.0600	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chlorophenyl phenyl ether	7005-72-3	< 1.0300			1.0300	10.0000	1.0300	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Methylphenol	106-44-5	< 0.7710			0.7710	10.0000	0.7710	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Nitroaniline	100-01-6	< 2.4800			2.4800	10.0000	2.4800	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Nitrophenol	100-02-7	< 1.2900			1.2900	10.0000	1.2900	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acenaphthene	83-32-9	< 0.6410			0.6410	10.0000	0.6410	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acenaphthylene	208-96-8	< 0.4910			0.4910	10.0000	0.4910	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acetophenone	98-86-2	< 0.7700			0.7700	10.0000	0.7700	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Aniline	62-53-3	< 0.5780			0.5780	10.0000	0.5780	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Anthracene	120-12-7	< 0.7410			0.7410	10.0000	0.7410	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)anthracene	56-55-3	< 0.7870			0.7870	10.0000	0.7870	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)pyrene	50-32-8	< 0.8470			0.8470	10.0000	0.8470	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(b)fluoranthene	205-99-2	< 1.1200			1.1200	10.0000	1.1200	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(g,h,i)perylene	191-24-2	< 1.1700			1.1700	10.0000	1.1700	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(k)fluoranthene	207-08-9	< 1.1600			1.1600	10.0000	1.1600	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzoic acid	65-85-0	< 2.4900			2.4900	10.0000	2.4900	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzyl alcohol	100-51-6	< 1.2700			1.2700	10.0000	1.2700	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethoxy)methane	111-91-1	< 0.8220			0.8220	10.0000	0.8220	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethyl)ether	111-44-4	< 0.5550			0.5550	10.0000	0.5550	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.6070			0.6070	10.0000	0.6070	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.5800			2.5800	10.0000	2.5800	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Butyl benzyl phthalate	85-68-7	< 2.2500			2.2500	10.0000	2.2500	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: MW 3 **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/9/2009 **Alamo Lab ID:** 0909042-06A **Time Received:** 8:05

Sample Time: 12:16 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Carbazole	86-74-8	< 1.5500			1.5500	10.0000	1.5500	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Chrysene	218-01-9	< 0.8260			0.8260	10.0000	0.8260	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Di-n-butyl phthalate	84-74-2	< 1.1000			1.1000	10.0000	1.1000	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Di-n-octyl phthalate	117-84-0	< 3.4100			3.4100	10.0000	3.4100	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dibenz(a,h)anthracene	53-70-3	< 1.2300			1.2300	10.0000	1.2300	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dibenzofuran	132-64-9	< 0.7370			0.7370	10.0000	0.7370	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Diethyl phthalate	84-66-2	< 0.9160			0.9160	10.0000	0.9160	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dimethyl phthalate	131-11-3	< 0.8170			0.8170	10.0000	0.8170	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Diphenylamine	122-39-4	< 0.5770			0.5770	10.0000	0.5770	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Fluoranthene	206-44-0	< 1.0400			1.0400	10.0000	1.0400	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Fluorene	86-73-7	< 0.6380			0.6380	10.0000	0.6380	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobenzene	118-74-1	< 0.2600			0.2600	10.0000	0.2600	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobutadiene	87-68-3	< 0.6050			0.6050	10.0000	0.6050	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorocyclopentadiene	77-47-4	< 1.0200			1.0200	10.0000	1.0200	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachloroethane	67-72-1	< 0.6730			0.6730	10.0000	0.6730	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.0900			1.0900	10.0000	1.0900	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Isophorone	78-59-1	< 0.7460			0.7460	10.0000	0.7460	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodi-n-propylamine	621-64-7	< 0.9660			0.9660	10.0000	0.9660	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodimethylamine	62-75-9	< 0.9730			0.9730	10.0000	0.9730	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodiphenylamine	86-30-6	< 0.5770			0.5770	10.0000	0.5770	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Naphthalene	91-20-3	< 0.7670			0.7670	10.0000	0.7670	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Nitrobenzene	98-95-3	< 0.6380			0.6380	10.0000	0.6380	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachlorobenzene	608-93-5	< 1.2500			1.2500	10.0000	1.2500	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachloronitrobenzene	82-68-8	< 0.5790			0.5790	10.0000	0.5790	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachlorophenol	87-86-5	< 1.0600			1.0600	10.0000	1.0600	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Phenanthrene	85-01-8	< 0.6840			0.6840	10.0000	0.6840	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Phenol	108-95-2	< 0.5090			0.5090	10.0000	0.5090	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pyrene	129-00-0	< 1.9000			1.9000	10.0000	1.9000	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pyridine	110-86-1	< 2.5800			2.5800	10.0000	2.5800	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3,3´-Dichlorobenzidine	91-94-1	< 1.9300			1.9300	10.0000	1.9300	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzidine	92-87-5	< 18.0000			18.0000	50.0000	18.0000	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3-Methylphenol	108-39-4	< 2.2300			2.2300	10.0000	2.2300	ug/L	9/18/2009 9:33:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
SW9010B													
Cyanide	57-12-5	< 0.0062			0.0062	0.0200	0.0062	mg/L	9/17/2009	CN_R_TW -9/17/2009	1	SS	9/17/2009

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TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042			**Report Date:**	Date: 9/30/2009
ClientSampID:	MW 3F	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/9/2009	**Alamo Lab ID:**	0909042-07A	**Time Received:**	8:05
Sample Time:	13:00			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
8270C													
1,2-Diphenylhydrazine	122-66-7	< 0.0860			0.0860	0.5000	0.0860	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrotoluene	121-14-2	< 0.2100			0.2100	1.0000	0.2100	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2,6-Dinitrotoluene	606-20-2	< 0.2100			0.2100	1.0000	0.2100	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
3,3´-Dichlorobenzidine	91-94-1	< 0.3200			0.3200	1.0000	0.3200	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Bromophenylphenylether	101-55-3	< 0.1600			0.1600	1.0000	0.1600	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Chlorophenylphenylether	7005-72-3	< 0.1800			0.1800	1.0000	0.1800	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Acenaphthene	83-32-9	< 0.2200			0.2200	1.0000	0.2200	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzidine	92-87-5	< 0.2300			0.2300	1.0000	0.2300	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)anthracene	56-55-3	< 0.1900			0.1900	0.5000	0.1900	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)pyrene	50-32-8	< 0.1300			0.1300	0.5000	0.1300	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(b)fluoranthene	205-99-2	< 0.1600			0.1600	0.5000	0.1600	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethoxy)methane	111-91-1	< 0.0680			0.0680	0.5000	0.0680	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethyl)ether	111-44-4	< 0.0720			0.0720	0.5000	0.0720	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Dibenz(a,h)anthracene	53-70-3	< 0.1900			0.1900	0.5000	0.1900	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobenzene	118-74-1	< 0.4300			0.4300	1.0000	0.4300	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1400			0.1400	0.5000	0.1400	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2-Naphthylamine	91-59-8	< 0.3600			0.3600	1.0000	0.3600	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodimethylamine	62-75-9	< 0.0920			0.0920	0.5000	0.0920	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0670			0.0670	0.5000	0.0670	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Pentachlorophenol	87-86-5	< 0.7800			0.7800	2.0000	0.7800	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
SW6010B													
Aluminum	7429-90-5	< 0.0217			0.0217	0.0500	0.0217	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Antimony	7440-36-0	< 0.0059			0.0059	0.0250	0.0059	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Arsenic	7440-38-2	< 0.0100			0.0100	0.0500	0.0100	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Barium	7440-39-3	0.0860			0.0150	0.0500	0.0150	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Beryllium	7440-41-7	< 0.0008			0.0008	0.0020	0.0008	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Cadmium	7440-43-9	< 0.0008			0.0008	0.0030	0.0008	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Calcium	7440-70-2	254.0000			0.0124	0.1000	0.0124	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Chromium	7440-47-3	< 0.0035			0.0035	0.0100	0.0035	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Cobalt	7440-48-4	< 0.0090			0.0090	0.0200	0.0090	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Copper	7440-50-8	< 0.0220			0.0220	0.0500	0.0220	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Iron	7439-89-6	0.0700			0.0263	0.0600	0.0263	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Lead	7439-92-1	< 0.0103			0.0103	0.0300	0.0103	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Magnesium	7439-95-4	167.0000			0.0283	0.1000	0.0283	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM

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TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: MW 3F **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/9/2009 **Alamo Lab ID:** 0909042-07A **Time Received:** 8:05

Sample Time: 13:00 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW6010B													
Manganese	7439-96-5	0.1930			0.0003	0.0050	0.0003	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Nickel	7440-02-0	< 0.0031			0.0031	0.0150	0.0031	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Potassium	7440-09-7	16.6000			0.1430	0.5000	0.1430	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Selenium	7782-49-2	< 0.0244			0.0244	0.0500	0.0244	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Silver	7440-22-4	< 0.0035			0.0035	0.0070	0.0035	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Sodium	7440-23-5	664.0000			0.1440	0.5000	0.1440	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Thallium	7440-28-0	< 0.0212			0.0212	0.0500	0.0212	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Vanadium	7440-62-2	< 0.0120			0.0120	0.0500	0.0120	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Zinc	7440-66-6	< 0.0080			0.0080	0.0200	0.0080	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.0034			0.0034	0.0100	0.0034	mg/L	9/11/2009	CR6_W -9/11/2009	1	SS	9/11/2009
SW7470A													
Mercury	7439-97-6	< 0.0001			0.0001	0.0002	0.0001	mg/L	9/17/2009 2:00:00 P	HG_R_W -09/17/2009	1	DW	9/17/2009 9:00:00 AM
SW8260B													
1,1-Dichloropropene	563-58-6	< 0.4500			0.4500	1.0000	0.4500	ug/L	9/22/2009 1:28:00 A	VOC1_090921A	1	VKG	9/22/2009 1:28:00 AM
1,1,1,2-Tetrachloroethane	630-20-6	< 1.5000			1.5000	5.0000	1.5000	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 0.0650			0.0650	0.2500	0.0650	ug/L	9/22/2009 1:28:00 A	VOC1_090921A	1	VKG	9/22/2009 1:28:00 AM
1,1,1-Trichloroethane	71-55-6	< 2.3100			2.3100	5.0000	2.3100	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 0.4200			0.4200	1.0000	0.4200	ug/L	9/22/2009 1:28:00 A	VOC1_090921A	1	VKG	9/22/2009 1:28:00 AM
1,1,2,2-Tetrachloroethane	79-34-5	< 1.6400			1.6400	5.0000	1.6400	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.4000			1.4000	5.0000	1.4000	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,2-Dibromoethane	106-93-4	< 0.0420			0.0420	0.2500	0.0420	ug/L	9/22/2009 1:28:00 A	VOC1_090921A	1	VKG	9/22/2009 1:28:00 AM
1,1-Dichloroethane	74-34-3	< 1.9700			1.9700	5.0000	1.9700	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,2,3-Trichloropropane	96-18-4	< 0.0550			0.0550	0.2500	0.0550	ug/L	9/22/2009 1:28:00 A	VOC1_090921A	1	VKG	9/22/2009 1:28:00 AM
1,1-Dichloroethene	75-35-4	< 1.1000			1.1000	5.0000	1.1000	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,1-Dichloropropene	563-58-6	< 1.4600			1.4600	5.0000	1.4600	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 4.9500			4.9500	10.0000	4.9500	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.3500			1.3500	5.0000	1.3500	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 4.7400			4.7400	10.0000	4.7400	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 1.8900			1.8900	5.0000	1.8900	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.3700			1.3700	5.0000	1.3700	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,2-Dibromoethane	106-93-4	< 1.2800			1.2800	5.0000	1.2800	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7980			0.7980	5.0000	0.7980	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,2-Dichloroethane	107-06-2	< 1.7300			1.7300	5.0000	1.7300	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM

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TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042			**Report Date:**	Date: 9/30/2009

ClientSampID:	MW 3F	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/9/2009	**Alamo Lab ID:**	0909042-07A	**Time Received:**	8:05
Sample Time:	13:00			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,2-Dichloropropane	78-87-5	< 1.2600			1.2600	5.0000	1.2600	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 1.6600			1.6600	5.0000	1.6600	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,3-Dichlorobenzene	541-73-1	< 1.0900			1.0900	5.0000	1.0900	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,3-Dichloropropane	142-28-9	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
1,4-Dichlorobenzene	106-46-7	< 1.3400			1.3400	5.0000	1.3400	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
2,2-Dichloropropane	590-20-7	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
2-Butanone	78-93-3	< 8.8300			8.8300	20.0000	8.8300	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
2-Chlorotoluene	95-49-8	< 1.1900			1.1900	5.0000	1.1900	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
2-Hexanone	591-78-6	< 2.0500			2.0500	10.0000	2.0500	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
4-Chlorotoluene	106-43-4	< 1.7000			1.7000	5.0000	1.7000	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
4-Isopropyltoluene	99-87-6	< 1.3100			1.3100	5.0000	1.3100	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.4700			1.4700	10.0000	1.4700	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Acetone	67-64-1	< 10.6000			10.6000	20.0000	10.6000	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Allyl chloride	107-05-1	< 1.2400			1.2400	5.0000	1.2400	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Benzene	71-43-2	< 1.2600			1.2600	5.0000	1.2600	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Bromobenzene	108-86-1	< 1.0000			1.0000	5.0000	1.0000	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Bromochloromethane	74-97-5	< 1.4500			1.4500	5.0000	1.4500	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Bromodichloromethane	75-27-4	< 0.9910			0.9910	5.0000	0.9910	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Bromoform	75-25-2	< 1.4700			1.4700	5.0000	1.4700	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Bromomethane	74-83-9	< 2.5300			2.5300	5.0000	2.5300	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Carbon disulfide	75-15-0	< 1.2500			1.2500	5.0000	1.2500	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Carbon tetrachloride	56-23-5	< 1.7200			1.7200	5.0000	1.7200	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Chlorobenzene	108-90-7	< 1.4000			1.4000	5.0000	1.4000	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Chloroethane	75-00-3	< 2.1400			2.1400	5.0000	2.1400	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Chloroform	67-66-3	< 2.3500			2.3500	5.0000	2.3500	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Chloromethane	74-87-3	< 2.4400			2.4400	10.0000	2.4400	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.8000			1.8000	5.0000	1.8000	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.2900			1.2900	5.0000	1.2900	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Dibromochloromethane	124-48-1	< 1.2900			1.2900	5.0000	1.2900	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Dibromomethane	74-95-3	< 2.3000			2.3000	5.0000	2.3000	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Dichlorodifluoromethane	75-71-8	< 3.9600			3.9600	5.0000	3.9600	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Ethylbenzene	100-41-4	< 1.6000			1.6000	5.0000	1.6000	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Hexachlorobutadiene	87-68-3	< 3.0300			3.0300	5.0000	3.0300	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Iodomethane	74-88-4	< 1.2300			1.2300	5.0000	1.2300	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: MW 3F **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/9/2009 **Alamo Lab ID:** 0909042-07A **Time Received:** 8:05

Sample Time: 13:00 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Isopropylbenzene	98-82-8	< 2.0800			2.0800	5.0000	2.0800	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
m,p-Xylene	179601-23-	< 2.5300			2.5300	10.0000	2.5300	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Methyl tert-butyl ether	1634-04-4	< 2.0100			2.0100	5.0000	2.0100	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Methylene chloride	75-09-2	< 1.3200			1.3200	20.0000	1.3200	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
n-Butylbenzene	104-51-8	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
n-Propylbenzene	103-65-1	< 1.4300			1.4300	5.0000	1.4300	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Naphthalene	91-20-3	< 6.6200			6.6200	15.0000	6.6200	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
o-Xylene	95-47-6	< 1.4800			1.4800	5.0000	1.4800	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
sec-Butylbenzene	135-98-8	< 0.8820			0.8820	5.0000	0.8820	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Styrene	100-42-5	< 1.3300			1.3300	5.0000	1.3300	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
tert-Butylbenzene	98-06-6	< 1.2800			1.2800	5.0000	1.2800	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Tetrachloroethene	127-18-4	< 1.5300			1.5300	5.0000	1.5300	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Toluene	108-88-3	< 1.4800			1.4800	5.0000	1.4800	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.5800			1.5800	5.0000	1.5800	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.3100			1.3100	10.0000	1.3100	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Trichloroethene	79-01-6	< 1.3900			1.3900	5.0000	1.3900	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Trichlorofluoromethane	75-69-4	< 1.3700			1.3700	5.0000	1.3700	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
Vinyl chloride	75-01-4	< 0.9300			0.9300	2.0000	0.9300	ug/L	9/16/2009 11:04:00 P	VOC1_090916A	1	VKG	9/16/2009 11:04:00 PM
SW8270C													
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.6240			0.6240	10.0000	0.6240	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 0.5620			0.5620	10.0000	0.5620	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.5560			0.5560	10.0000	0.5560	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2-Diphenylhydrazine	122-66-7	< 1.0200			1.0200	10.0000	1.0200	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.5440			0.5440	10.0000	0.5440	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.6010			0.6010	10.0000	0.6010	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.8580			0.8580	10.0000	0.8580	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4,5-Trichlorophenol	95-95-4	< 0.7590			0.7590	10.0000	0.7590	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4,6-Trichlorophenol	88-06-2	< 0.7400			0.7400	10.0000	0.7400	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dichlorophenol	120-83-2	< 0.6650			0.6650	10.0000	0.6650	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dimethylphenol	105-67-9	< 0.6970			0.6970	10.0000	0.6970	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrophenol	51-28-5	< 2.1500			2.1500	10.0000	2.1500	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrotoluene	121-14-2	< 0.6630			0.6630	10.0000	0.6630	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,6-Dichlorophenol	87-65-0	< 0.6650			0.6650	10.0000	0.6650	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,6-Dinitrotoluene	606-20-2	< 0.7960			0.7960	10.0000	0.7960	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: MW 3F **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/9/2009 **Alamo Lab ID:** 0909042-07A **Time Received:** 8:05

Sample Time: 13:00 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
2-Chloronaphthalene	91-58-7	< 0.5460			0.5460	10.0000	0.5460	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Chlorophenol	95-57-8	< 0.7980			0.7980	10.0000	0.7980	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Methylnaphthalene	91-57-6	< 0.6030			0.6030	10.0000	0.6030	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Methylphenol	95-48-7	< 0.9460			0.9460	10.0000	0.9460	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Naphthylamine	91-59-8	< 1.6000			1.6000	10.0000	1.6000	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Nitroaniline	88-74-4	< 1.1700			1.1700	10.0000	1.1700	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Nitrophenol	88-75-5	< 0.8240			0.8240	10.0000	0.8240	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3-Nitroaniline	99-09-2	< 1.9900			1.9900	10.0000	1.9900	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4,6-Dinitro-2-methylphenol	534-52-1	< 1.5500			1.5500	10.0000	1.5500	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Aminobiphenyl	92-67-1	< 0.0460			0.0460	0.20000	0.0460	ug/L	9/22/2009 7:46:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Bromophenyl phenyl ether	101-55-3	< 0.5930			0.5930	10.0000	0.5930	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chloro-3-methylphenol	59-50-7	1.3600		J	0.7750	10.0000	0.7750	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chloroaniline	106-47-8	< 4.0600			4.0600	10.0000	4.0600	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chlorophenyl phenyl ether	7005-72-3	< 1.0300			1.0300	10.0000	1.0300	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Methylphenol	106-44-5	< 0.7710			0.7710	10.0000	0.7710	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Nitroaniline	100-01-6	< 2.4800			2.4800	10.0000	2.4800	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Nitrophenol	100-02-7	< 1.2900			1.2900	10.0000	1.2900	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acenaphthene	83-32-9	< 0.6410			0.6410	10.0000	0.6410	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acenaphthylene	208-96-8	< 0.4910			0.4910	10.0000	0.4910	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acetophenone	98-86-2	< 0.7700			0.7700	10.0000	0.7700	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Aniline	62-53-3	< 0.5780			0.5780	10.0000	0.5780	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Anthracene	120-12-7	< 0.7410			0.7410	10.0000	0.7410	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)anthracene	56-55-3	< 0.7870			0.7870	10.0000	0.7870	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)pyrene	50-32-8	< 0.8470			0.8470	10.0000	0.8470	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(b)fluoranthene	205-99-2	< 1.1200			1.1200	10.0000	1.1200	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(g,h,i)perylene	191-24-2	< 1.1700			1.1700	10.0000	1.1700	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(k)fluoranthene	207-08-9	< 1.1600			1.1600	10.0000	1.1600	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzoic acid	65-85-0	< 2.4900			2.4900	10.0000	2.4900	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzyl alcohol	100-51-6	< 1.2700			1.2700	10.0000	1.2700	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethoxy)methane	111-91-1	< 0.8220			0.8220	10.0000	0.8220	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethyl)ether	111-44-4	< 0.5550			0.5550	10.0000	0.5550	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.6070			0.6070	10.0000	0.6070	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.5800			2.5800	10.0000	2.5800	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Butyl benzyl phthalate	85-68-7	< 2.2500			2.2500	10.0000	2.2500	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: MW 3F **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/9/2009 **Alamo Lab ID:** 0909042-07A **Time Received:** 8:05

Sample Time: 13:00 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Carbazole	86-74-8	< 1.5500			1.5500	10.0000	1.5500	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Chrysene	218-01-9	< 0.8260			0.8260	10.0000	0.8260	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Di-n-butyl phthalate	84-74-2	< 1.1000			1.1000	10.0000	1.1000	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Di-n-octyl phthalate	117-84-0	< 3.4100			3.4100	10.0000	3.4100	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dibenz(a,h)anthracene	53-70-3	< 1.2300			1.2300	10.0000	1.2300	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dibenzofuran	132-64-9	< 0.7370			0.7370	10.0000	0.7370	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Diethyl phthalate	84-66-2	< 0.9160			0.9160	10.0000	0.9160	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dimethyl phthalate	131-11-3	< 0.8170			0.8170	10.0000	0.8170	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Diphenylamine	122-39-4	< 0.5770			0.5770	10.0000	0.5770	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Fluoranthene	206-44-0	< 1.0400			1.0400	10.0000	1.0400	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Fluorene	86-73-7	< 0.6380			0.6380	10.0000	0.6380	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobenzene	118-74-1	< 0.2600			0.2600	10.0000	0.2600	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobutadiene	87-68-3	< 0.6050			0.6050	10.0000	0.6050	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorocyclopentadiene	77-47-4	< 1.0200			1.0200	10.0000	1.0200	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachloroethane	67-72-1	< 0.6730			0.6730	10.0000	0.6730	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.0900			1.0900	10.0000	1.0900	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Isophorone	78-59-1	< 0.7460			0.7460	10.0000	0.7460	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodi-n-propylamine	621-64-7	< 0.9660			0.9660	10.0000	0.9660	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodimethylamine	62-75-9	< 0.9730			0.9730	10.0000	0.9730	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodiphenylamine	86-30-6	< 0.5770			0.5770	10.0000	0.5770	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Naphthalene	91-20-3	< 0.7670			0.7670	10.0000	0.7670	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Nitrobenzene	98-95-3	< 0.6380			0.6380	10.0000	0.6380	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachlorobenzene	608-93-5	< 1.2500			1.2500	10.0000	1.2500	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachloronitrobenzene	82-68-8	< 0.5790			0.5790	10.0000	0.5790	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachlorophenol	87-86-5	< 1.0600			1.0600	10.0000	1.0600	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Phenanthrene	85-01-8	< 0.6840			0.6840	10.0000	0.6840	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Phenol	108-95-2	< 0.5090			0.5090	10.0000	0.5090	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pyrene	129-00-0	< 1.9000			1.9000	10.0000	1.9000	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pyridine	110-86-1	< 2.5800			2.5800	10.0000	2.5800	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3,3´-Dichlorobenzidine	91-94-1	< 1.9300			1.9300	10.0000	1.9300	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzidine	92-87-5	< 18.0000			18.0000	50.0000	18.0000	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3-Methylphenol	108-39-4	< 2.2300			2.2300	10.0000	2.2300	ug/L	9/18/2009 10:11:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
SW9010B													
Cyanide	57-12-5	< 0.0062			0.0062	0.0200	0.0062	mg/L	9/17/2009	CN_R_TW -9/17/2009	1	SS	9/17/2009

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: MW 1 **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/9/2009 **Alamo Lab ID:** 0909042-08A **Time Received:** 8:05

Sample Time: 17:54 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
8270C													
1,2-Diphenylhydrazine	122-66-7	< 0.0860			0.0860	0.5000	0.0860	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrotoluene	121-14-2	< 0.2100			0.2100	1.0000	0.2100	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2,6-Dinitrotoluene	606-20-2	< 0.2100			0.2100	1.0000	0.2100	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
3,3´-Dichlorobenzidine	91-94-1	< 0.3200			0.3200	1.0000	0.3200	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Bromophenylphenylether	101-55-3	< 0.1600			0.1600	1.0000	0.1600	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Chlorophenylphenylether	7005-72-3	< 0.1800			0.1800	1.0000	0.1800	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Acenaphthene	83-32-9	< 0.2200			0.2200	1.0000	0.2200	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzidine	92-87-5	< 0.2300			0.2300	1.0000	0.2300	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)anthracene	56-55-3	< 0.1900			0.1900	0.5000	0.1900	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)pyrene	50-32-8	< 0.1300			0.1300	0.5000	0.1300	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Benzo(b)fluoranthene	205-99-2	< 0.1600			0.1600	0.5000	0.1600	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethoxy)methane	111-91-1	< 0.0680			0.0680	0.5000	0.0680	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethyl)ether	111-44-4	< 0.0720			0.0720	0.5000	0.0720	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Dibenz(a,h)anthracene	53-70-3	< 0.1900			0.1900	0.5000	0.1900	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobenzene	118-74-1	< 0.4300			0.4300	1.0000	0.4300	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Indeno(1,2,3-cd)pyrene	193-39-5	< 0.1400			0.1400	0.5000	0.1400	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
2-Naphthylamine	91-59-8	< 0.3600			0.3600	1.0000	0.3600	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodimethylamine	62-75-9	< 0.0920			0.0920	0.5000	0.0920	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodi-n-propylamine	621-64-7	< 0.0670			0.0670	0.5000	0.0670	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
Pentachlorophenol	87-86-5	< 0.7800			0.7800	2.0000	0.7800	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
SW6010B													
Aluminum	7429-90-5	< 0.0217			0.0217	0.0500	0.0217	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Antimony	7440-36-0	< 0.0059			0.0059	0.0250	0.0059	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Arsenic	7440-38-2	< 0.0100			0.0100	0.0500	0.0100	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Barium	7440-39-3	0.0920			0.0150	0.0500	0.0150	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Beryllium	7440-41-7	< 0.0008			0.0008	0.0020	0.0008	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Cadmium	7440-43-9	< 0.0008			0.0008	0.0030	0.0008	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Calcium	7440-70-2	330.0000			0.0124	0.1000	0.0124	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Chromium	7440-47-3	< 0.0035			0.0035	0.0100	0.0035	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Cobalt	7440-48-4	< 0.0090			0.0090	0.0200	0.0090	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Copper	7440-50-8	< 0.0220			0.0220	0.0500	0.0220	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Iron	7439-89-6	< 0.0263			0.0263	0.0600	0.0263	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Lead	7439-92-1	< 0.0103			0.0103	0.0300	0.0103	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Magnesium	7439-95-4	229.0000			0.0283	0.1000	0.0283	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042	**Report Date:**	Date: 9/30/2009		

ClientSampID:	MW 1	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/9/2009	**Alamo Lab ID:**	0909042-08A	**Time Received:**	8:05
Sample Time:	17:54			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW6010B													
Manganese	7439-96-5	0.0210			0.0003	0.0050	0.0003	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Nickel	7440-02-0	< 0.0031			0.0031	0.0150	0.0031	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Potassium	7440-09-7	13.9000			0.1430	0.5000	0.1430	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Selenium	7782-49-2	< 0.0244			0.0244	0.0500	0.0244	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Silver	7440-22-4	< 0.0035			0.0035	0.0070	0.0035	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Sodium	7440-23-5	800.0000			0.1440	0.5000	0.1440	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Thallium	7440-28-0	< 0.0212			0.0212	0.0500	0.0212	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Vanadium	7440-62-2	< 0.0120			0.0120	0.0500	0.0120	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
Zinc	7440-66-6	< 0.0080			0.0080	0.0200	0.0080	mg/L	9/16/2009 12:15:00 P	TAL_W -9/16/2009	1	JOL	9/16/2009 8:00:00 AM
SW7196A													
Chromium, Hexavalent	18540-29-9	< 0.0034			0.0034	0.0100	0.0034	mg/L	9/11/2009	CR6_W -9/11/2009	1	SS	9/11/2009
SW7470A													
Mercury	7439-97-6	< 0.0001			0.0001	0.0002	0.0001	mg/L	9/17/2009 2:00:00 P	HG_R_W -09/17/2009	1	DW	9/17/2009 9:00:00 AM
SW8260B													
1,1-Dichloropropene	563-58-6	< 0.4500			0.4500	1.0000	0.4500	ug/L	9/22/2009 2:04:00 A	VOC1_090921A	1	VKG	9/22/2009 2:04:00 AM
1,1,1,2-Tetrachloroethane	630-20-6	< 1.5000			1.5000	5.0000	1.5000	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 0.0650			0.0650	0.2500	0.0650	ug/L	9/22/2009 2:04:00 A	VOC1_090921A	1	VKG	9/22/2009 2:04:00 AM
1,1,1-Trichloroethane	71-55-6	< 2.3100			2.3100	5.0000	2.3100	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 0.4200			0.4200	1.0000	0.4200	ug/L	9/22/2009 2:04:00 A	VOC1_090921A	1	VKG	9/22/2009 2:04:00 AM
1,1,2,2-Tetrachloroethane	79-34-5	< 1.6400			1.6400	5.0000	1.6400	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,1,2-Trichloroethane	79-00-5	< 1.4000			1.4000	5.0000	1.4000	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,2-Dibromoethane	106-93-4	< 0.0420			0.0420	0.2500	0.0420	ug/L	9/22/2009 2:04:00 A	VOC1_090921A	1	VKG	9/22/2009 2:04:00 AM
1,1-Dichloroethane	74-34-3	< 1.9700			1.9700	5.0000	1.9700	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,2,3-Trichloropropane	96-18-4	< 0.0550			0.0550	0.2500	0.0550	ug/L	9/22/2009 2:04:00 A	VOC1_090921A	1	VKG	9/22/2009 2:04:00 AM
1,1-Dichloroethene	75-35-4	< 1.1000			1.1000	5.0000	1.1000	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,1-Dichloropropene	563-58-6	< 1.4600			1.4600	5.0000	1.4600	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,2,3-Trichlorobenzene	87-61-6	< 4.9500			4.9500	10.0000	4.9500	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,2,3-Trichloropropane	96-18-4	< 1.3500			1.3500	5.0000	1.3500	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 4.7400			4.7400	10.0000	4.7400	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,2,4-Trimethylbenzene	95-63-6	< 1.8900			1.8900	5.0000	1.8900	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,2-Dibromo-3-chloropropane	96-12-8	< 1.3700			1.3700	5.0000	1.3700	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,2-Dibromoethane	106-93-4	< 1.2800			1.2800	5.0000	1.2800	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.7980			0.7980	5.0000	0.7980	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,2-Dichloroethane	107-06-2	< 1.7300			1.7300	5.0000	1.7300	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM

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TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042			**Report Date:**	Date: 9/30/2009

ClientSampID:	MW 1	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/9/2009	**Alamo Lab ID:**	0909042-08A	**Time Received:**	8:05
Sample Time:	17:54			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
1,2-Dichloropropane	78-87-5	< 1.2600			1.2600	5.0000	1.2600	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,3,5-Trimethylbenzene	108-67-8	< 1.6600			1.6600	5.0000	1.6600	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,3-Dichlorobenzene	541-73-1	< 1.0900			1.0900	5.0000	1.0900	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,3-Dichloropropane	142-28-9	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
1,4-Dichlorobenzene	106-46-7	< 1.3400			1.3400	5.0000	1.3400	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
2,2-Dichloropropane	590-20-7	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
2-Butanone	78-93-3	< 8.8300			8.8300	20.0000	8.8300	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
2-Chlorotoluene	95-49-8	< 1.1900			1.1900	5.0000	1.1900	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
2-Hexanone	591-78-6	< 2.0500			2.0500	10.0000	2.0500	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
4-Chlorotoluene	106-43-4	< 1.7000			1.7000	5.0000	1.7000	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
4-Isopropyltoluene	99-87-6	< 1.3100			1.3100	5.0000	1.3100	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
4-Methyl-2-pentanone	108-10-1	< 1.4700			1.4700	10.0000	1.4700	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Acetone	67-64-1	< 10.6000			10.6000	20.0000	10.6000	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Allyl chloride	107-05-1	< 1.2400			1.2400	5.0000	1.2400	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Benzene	71-43-2	< 1.2600			1.2600	5.0000	1.2600	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Bromobenzene	108-86-1	< 1.0000			1.0000	5.0000	1.0000	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Bromochloromethane	74-97-5	< 1.4500			1.4500	5.0000	1.4500	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Bromodichloromethane	75-27-4	< 0.9910			0.9910	5.0000	0.9910	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Bromoform	75-25-2	< 1.4700			1.4700	5.0000	1.4700	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Bromomethane	74-83-9	< 2.5300			2.5300	5.0000	2.5300	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Carbon disulfide	75-15-0	< 1.2500			1.2500	5.0000	1.2500	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Carbon tetrachloride	56-23-5	< 1.7200			1.7200	5.0000	1.7200	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Chlorobenzene	108-90-7	< 1.4000			1.4000	5.0000	1.4000	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Chloroethane	75-00-3	< 2.1400			2.1400	5.0000	2.1400	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Chloroform	67-66-3	< 2.3500			2.3500	5.0000	2.3500	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Chloromethane	74-87-3	< 2.4400			2.4400	10.0000	2.4400	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
cis-1,2-Dichloroethene	156-59-2	< 1.8000			1.8000	5.0000	1.8000	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
cis-1,3-Dichloropropene	10061-01-5	< 1.2900			1.2900	5.0000	1.2900	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Dibromochloromethane	124-48-1	< 1.2900			1.2900	5.0000	1.2900	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Dibromomethane	74-95-3	< 2.3000			2.3000	5.0000	2.3000	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Dichlorodifluoromethane	75-71-8	< 3.9600			3.9600	5.0000	3.9600	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Ethylbenzene	100-41-4	< 1.6000			1.6000	5.0000	1.6000	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Hexachlorobutadiene	87-68-3	< 3.0300			3.0300	5.0000	3.0300	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Iodomethane	74-88-4	< 1.2300			1.2300	5.0000	1.2300	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042			**Report Date:**	Date: 9/30/2009
ClientSampID:	MW 1	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/9/2009	**Alamo Lab ID:**	0909042-08A	**Time Received:**	8:05
Sample Time:	17:54			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8260B													
Isopropylbenzene	98-82-8	< 2.0800			2.0800	5.0000	2.0800	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
m,p-Xylene	179601-23-	< 2.5300			2.5300	10.0000	2.5300	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Methyl tert-butyl ether	1634-04-4	< 2.0100			2.0100	5.0000	2.0100	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Methylene chloride	75-09-2	< 1.3200			1.3200	20.0000	1.3200	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
n-Butylbenzene	104-51-8	< 1.3200			1.3200	5.0000	1.3200	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
n-Propylbenzene	103-65-1	< 1.4300			1.4300	5.0000	1.4300	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Naphthalene	91-20-3	< 6.6200			6.6200	15.0000	6.6200	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
o-Xylene	95-47-6	< 1.4800			1.4800	5.0000	1.4800	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
sec-Butylbenzene	135-98-8	< 0.8820			0.8820	5.0000	0.8820	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Styrene	100-42-5	< 1.3300			1.3300	5.0000	1.3300	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
tert-Butylbenzene	98-06-6	< 1.2800			1.2800	5.0000	1.2800	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Tetrachloroethene	127-18-4	< 1.5300			1.5300	5.0000	1.5300	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Toluene	108-88-3	< 1.4800			1.4800	5.0000	1.4800	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
trans-1,2-Dichloroethene	156-60-5	< 1.5800			1.5800	5.0000	1.5800	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
trans-1,3-Dichloropropene	10061-02-9	< 1.3100			1.3100	10.0000	1.3100	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Trichloroethene	79-01-6	< 1.3900			1.3900	5.0000	1.3900	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Trichlorofluoromethane	75-69-4	< 1.3700			1.3700	5.0000	1.3700	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
Vinyl chloride	75-01-4	< 0.9300			0.9300	2.0000	0.9300	ug/L	9/16/2009 11:48:00 P	VOC1_090916A	1	VKG	9/16/2009 11:48:00 PM
SW8270C													
1,2,4,5-Tetrachlorobenzene	95-94-3	< 0.6240			0.6240	10.0000	0.6240	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2,4-Trichlorobenzene	120-82-1	< 0.5620			0.5620	10.0000	0.5620	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2-Dichlorobenzene	95-50-1	< 0.5560			0.5560	10.0000	0.5560	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,2-Diphenylhydrazine	122-66-7	< 1.0200			1.0200	10.0000	1.0200	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,3-Dichlorobenzene	541-73-1	< 0.5440			0.5440	10.0000	0.5440	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
1,4-Dichlorobenzene	106-46-7	< 0.6010			0.6010	10.0000	0.6010	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,3,4,6-Tetrachlorophenol	58-90-2	< 0.8580			0.8580	10.0000	0.8580	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4,5-Trichlorophenol	95-95-4	< 0.7590			0.7590	10.0000	0.7590	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4,6-Trichlorophenol	88-06-2	< 0.7400			0.7400	10.0000	0.7400	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dichlorophenol	120-83-2	< 0.6650			0.6650	10.0000	0.6650	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dimethylphenol	105-67-9	< 0.6970			0.6970	10.0000	0.6970	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrophenol	51-28-5	< 2.1500			2.1500	10.0000	2.1500	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,4-Dinitrotoluene	121-14-2	< 0.6630			0.6630	10.0000	0.6630	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,6-Dichlorophenol	87-65-0	< 0.6650			0.6650	10.0000	0.6650	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2,6-Dinitrotoluene	606-20-2	< 0.7960			0.7960	10.0000	0.7960	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose
Alamo Lab Job Order Number:	0909042	**Report Date:**	Date: 9/30/2009		

ClientSampID:	MW 1	**Sample Matrix:**	W ater	**Date Received:**	9/11/2009
Sample Date:	9/9/2009	**Alamo Lab ID:**	0909042-08A	**Time Received:**	8:05
Sample Time:	17:54			**Dry Weight Corrected:**	N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
2-Chloronaphthalene	91-58-7	< 0.5460			0.5460	10.0000	0.5460	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Chlorophenol	95-57-8	< 0.7980			0.7980	10.0000	0.7980	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Methylnaphthalene	91-57-6	< 0.6030			0.6030	10.0000	0.6030	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Methylphenol	95-48-7	< 0.9460			0.9460	10.0000	0.9460	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Naphthylamine	91-59-8	< 1.6000			1.6000	10.0000	1.6000	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Nitroaniline	88-74-4	< 1.1700			1.1700	10.0000	1.1700	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
2-Nitrophenol	88-75-5	< 0.8240			0.8240	10.0000	0.8240	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3-Nitroaniline	99-09-2	< 1.9900			1.9900	10.0000	1.9900	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4,6-Dinitro-2-methylphenol	534-52-1	< 1.5500			1.5500	10.0000	1.5500	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Aminobiphenyl	92-67-1	< 0.0460			0.0460	0.20000	0.0460	ug/L	9/22/2009 8:42:00 P	SVOC1_090917B	1	SLF	9/14/2009 12:00:00 PM
4-Bromophenyl phenyl ether	101-55-3	< 0.5930			0.5930	10.0000	0.5930	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chloro-3-methylphenol	59-50-7	< 0.7750			0.7750	10.0000	0.7750	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chloroaniline	106-47-8	< 4.0600			4.0600	10.0000	4.0600	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Chlorophenyl phenyl ether	7005-72-3	< 1.0300			1.0300	10.0000	1.0300	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Methylphenol	106-44-5	< 0.7710			0.7710	10.0000	0.7710	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Nitroaniline	100-01-6	< 2.4800			2.4800	10.0000	2.4800	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
4-Nitrophenol	100-02-7	< 1.2900			1.2900	10.0000	1.2900	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acenaphthene	83-32-9	< 0.6410			0.6410	10.0000	0.6410	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acenaphthylene	208-96-8	< 0.4910			0.4910	10.0000	0.4910	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Acetophenone	98-86-2	< 0.7700			0.7700	10.0000	0.7700	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Aniline	62-53-3	< 0.5780			0.5780	10.0000	0.5780	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Anthracene	120-12-7	< 0.7410			0.7410	10.0000	0.7410	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)anthracene	56-55-3	< 0.7870			0.7870	10.0000	0.7870	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(a)pyrene	50-32-8	< 0.8470			0.8470	10.0000	0.8470	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(b)fluoranthene	205-99-2	< 1.1200			1.1200	10.0000	1.1200	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(g,h,i)perylene	191-24-2	< 1.1700			1.1700	10.0000	1.1700	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzo(k)fluoranthene	207-08-9	< 1.1600			1.1600	10.0000	1.1600	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzoic acid	65-85-0	< 2.4900			2.4900	10.0000	2.4900	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzyl alcohol	100-51-6	< 1.2700			1.2700	10.0000	1.2700	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethoxy)methane	111-91-1	< 0.8220			0.8220	10.0000	0.8220	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroethyl)ether	111-44-4	< 0.5550			0.5550	10.0000	0.5550	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-chloroisopropyl)ether	108-60-1	< 0.6070			0.6070	10.0000	0.6070	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.5800			2.5800	10.0000	2.5800	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Butyl benzyl phthalate	85-68-7	< 2.2500			2.2500	10.0000	2.2500	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	Project:	LHAAP19LFCA	Contact:	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 9/30/2009

ClientSampID: MW 1 **Sample Matrix:** W ater **Date Received:** 9/11/2009

Sample Date: 9/9/2009 **Alamo Lab ID:** 0909042-08A **Time Received:** 8:05

Sample Time: 17:54 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW8270C													
Carbazole	86-74-8	< 1.5500			1.5500	10.0000	1.5500	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Chrysene	218-01-9	< 0.8260			0.8260	10.0000	0.8260	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Di-n-butyl phthalate	84-74-2	< 1.1000			1.1000	10.0000	1.1000	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Di-n-octyl phthalate	117-84-0	< 3.4100			3.4100	10.0000	3.4100	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dibenz(a,h)anthracene	53-70-3	< 1.2300			1.2300	10.0000	1.2300	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dibenzofuran	132-64-9	< 0.7370			0.7370	10.0000	0.7370	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Diethyl phthalate	84-66-2	< 0.9160			0.9160	10.0000	0.9160	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Dimethyl phthalate	131-11-3	< 0.8170			0.8170	10.0000	0.8170	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Diphenylamine	122-39-4	< 0.5770			0.5770	10.0000	0.5770	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Fluoranthene	206-44-0	< 1.0400			1.0400	10.0000	1.0400	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Fluorene	86-73-7	< 0.6380			0.6380	10.0000	0.6380	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobenzene	118-74-1	< 0.2600			0.2600	10.0000	0.2600	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorobutadiene	87-68-3	< 0.6050			0.6050	10.0000	0.6050	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachlorocyclopentadiene	77-47-4	< 1.0200			1.0200	10.0000	1.0200	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Hexachloroethane	67-72-1	< 0.6730			0.6730	10.0000	0.6730	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.0900			1.0900	10.0000	1.0900	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Isophorone	78-59-1	< 0.7460			0.7460	10.0000	0.7460	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodi-n-propylamine	621-64-7	< 0.9660			0.9660	10.0000	0.9660	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodimethylamine	62-75-9	< 0.9730			0.9730	10.0000	0.9730	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
N-Nitrosodiphenylamine	86-30-6	< 0.5770			0.5770	10.0000	0.5770	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Naphthalene	91-20-3	< 0.7670			0.7670	10.0000	0.7670	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Nitrobenzene	98-95-3	< 0.6380			0.6380	10.0000	0.6380	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachlorobenzene	608-93-5	< 1.2500			1.2500	10.0000	1.2500	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachloronitrobenzene	82-68-8	< 0.5790			0.5790	10.0000	0.5790	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pentachlorophenol	87-86-5	< 1.0600			1.0600	10.0000	1.0600	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Phenanthrene	85-01-8	< 0.6840			0.6840	10.0000	0.6840	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Phenol	108-95-2	< 0.5090			0.5090	10.0000	0.5090	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pyrene	129-00-0	< 1.9000			1.9000	10.0000	1.9000	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Pyridine	110-86-1	< 2.5800			2.5800	10.0000	2.5800	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3,3´-Dichlorobenzidine	91-94-1	< 1.9300			1.9300	10.0000	1.9300	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
Benzidine	92-87-5	< 18.0000			18.0000	50.0000	18.0000	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
3-Methylphenol	108-39-4	< 2.2300			2.2300	10.0000	2.2300	ug/L	9/18/2009 5:43:00 P	SVOC1_090921A	1	SLF	9/14/2009 12:00:00 PM
SW9010B													
Cyanide	57-12-5	< 0.0062			0.0062	0.0200	0.0062	mg/L	9/17/2009	CN_R_TW -9/17/2009	1	SS	9/17/2009

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW9010B **Units.....:** mg/L **Analyst...:** SS

Method Description..: CYANIDE, TOTAL **Batch.....:** CN_R_TW-9/17/2009 **RunID:** CN_090917A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	BLK	1	9/17/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Cyanide	< .0062						-	

Test Method.....: SW9010B **Units.....:** mg/L **Analyst...:** SS

Method Description..: CYANIDE, TOTAL **Batch.....:** CN_R_TW-9/17/2009 **RunID:** CN_090917A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	LCS	1	9/17/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Cyanide	0.0480		0.0500		96	%	80 - 120	
							RPDLimit = 20	

Test Method.....: SW9010B **Units.....:** mg/L **Analyst...:** SS

Method Description..: CYANIDE, TOTAL **Batch.....:** CN_R_TW-9/17/2009 **RunID:** CN_090917A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0909042-02AMS	1	9/17/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Cyanide	0.0510		0.0500		102	%	80 - 120	

Test Method.....: SW9010B **Units.....:** mg/L **Analyst...:** SS

Method Description..: CYANIDE, TOTAL **Batch.....:** CN_R_TW-9/17/2009 **RunID:** CN_090917A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSD	Matrix Spike Duplicate	0909042-02AMSD	1	9/17/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Cyanide	0.0520	0.0510	0.0500		104	%	80 - 120	
					RPD = 1.9		RPDLimit = 20	

Test Method.....: SW7470A **Units.....:** mg/L **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_W-09/17/2009 **RunID:** HG_090917A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK17A	1	9/17/2009 2:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	< .0001						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW7470A **Units.....:** mg/L **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_W-09/17/2009 **RunID:** HG_090917A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	09LCS17A	1	9/17/2009 2:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	0.0049		0.0050		98	%	77 - 120	

Test Method.....: SW7470A **Units.....:** mg/L **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_W-09/17/2009 **RunID:** HG_090917A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0909042-08AMS	1	9/17/2009 2:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	0.0048		0.0050		96	%	77 - 120	

Test Method.....: SW7470A **Units.....:** mg/L **Analyst...:** DW

Method Description..: MERCURY, TOTAL **Batch.....:** HG_R_W-09/17/2009 **RunID:** HG_090917A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSD	Matrix Spike Duplicate	0909042-08AMSD	1	9/17/2009 2:00:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Mercury	0.0049	0.0048	0.0050		98	%	77 - 120	

RPD = 2.1 RPDLimit = 15

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW6010B **Units.....:** mg/L **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_W-9/16/2009 **RunID:** ICP_090914A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	BLK	1	9/16/2009 12:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	< .0217						-	
Antimony	< 0.0059						-	
Arsenic	< .0100						-	
Barium	< .0150						-	
Beryllium	< .0008						-	
Cadmium	< .0008						-	
Calcium	< .0124						-	
Chromium	< .0035						-	
Cobalt	< .0090						-	
Copper	< .0220						-	
Iron	< .0263						-	
Lead	< .0103						-	
Magnesium	< .0283						-	
Manganese	< .0003						-	
Nickel	< .0031						-	
Potassium	< .1430						-	
Selenium	< .0244						-	
Silver	< .0035						-	
Sodium	< .1440						-	
Thallium	< .0212						-	
Vanadium	< .0120						-	
Zinc	< .0080						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW6010B **Units.....:** mg/L **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_W-9/16/2009 **RunID:** ICP_090914A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	LCS	1	9/16/2009 12:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	0.9600		1.0000		96	%	80 - 120	
Antimony	0.9840		1.0000		98	%	80 - 120	
Arsenic	0.9850		1.0000		99	%	80 - 120	
Barium	1.0300		1.0000		103	%	80 - 120	
Beryllium	1.0100		1.0000		101	%	80 - 120	
Cadmium	1.0200		1.0000		102	%	80 - 120	
Calcium	9.9700		10.0000		100	%	80 - 120	
Chromium	1.0400		1.0000		104	%	80 - 120	
Cobalt	0.9580		1.0000		96	%	80 - 120	
Copper	1.0200		1.0000		102	%	80 - 120	
Iron	0.8880		1.0000		89	%	80 - 120	
Lead	1.0400		1.0000		104	%	80 - 120	
Magnesium	9.9800		10.0000		100	%	80 - 120	
Manganese	1.0100		1.0000		101	%	80 - 120	
Nickel	1.0400		1.0000		104	%	80 - 120	
Potassium	9.0000		10.0000		90	%	80 - 120	
Selenium	1.0300		1.0000		103	%	80 - 120	
Silver	1.0100		1.0000		101	%	80 - 120	
Sodium	8.4400		10.0000		84	%	80 - 120	
Thallium	1.0400		1.0000		104	%	80 - 120	
Vanadium	0.9540		1.0000		95	%	80 - 120	
Zinc	1.0200		1.0000		102	%	80 - 120	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW6010B **Units.....:** mg/L **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_W-9/16/2009 **RunID:** ICP_090914A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCSD	Laboratory Control Sample Duplicate	LCSD	1	9/16/2009 12:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	0.9270	0.9600	1.0000		93	%	80 - 120	
					RPD = 3.5		RPDLimit = 15	
Antimony	0.9160	0.9840	1.0000		92	%	80 - 120	
					RPD = 7.2		RPDLimit = 15	
Arsenic	0.9730	0.9850	1.0000		97	%	80 - 120	
					RPD = 1.2		RPDLimit = 15	
Barium	0.9920	1.0300	1.0000		99	%	80 - 120	
					RPD = 3.8		RPDLimit = 15	
Beryllium	1.0400	1.0100	1.0000		104	%	80 - 120	
					RPD = 2.9		RPDLimit = 15	
Cadmium	1.0300	1.0200	1.0000		103	%	80 - 120	
					RPD = 1.0		RPDLimit = 15	
Calcium	10.4000	9.9700	10.0000		104	%	80 - 120	
					RPD = 4.2		RPDLimit = 15	
Chromium	1.0700	1.0400	1.0000		107	%	80 - 120	
					RPD = 2.8		RPDLimit = 15	
Cobalt	0.9710	0.9580	1.0000		97	%	80 - 120	
					RPD = 1.3		RPDLimit = 15	
Copper	1.0200	1.0200	1.0000		102	%	80 - 120	
					RPD = 0.0		RPDLimit = 15	
Iron	0.9380	0.8880	1.0000		94	%	80 - 120	
					RPD = 5.5		RPDLimit = 15	
Lead	0.9630	1.0400	1.0000		96	%	80 - 120	
					RPD = 7.7		RPDLimit = 15	
Magnesium	10.1000	9.9800	10.0000		101	%	80 - 120	
					RPD = 1.2		RPDLimit = 15	
Manganese	0.9950	1.0100	1.0000		100	%	80 - 120	
					RPD = 1.5		RPDLimit = 15	
Nickel	1.0500	1.0400	1.0000		105	%	80 - 120	
					RPD = 1.0		RPDLimit = 15	
Potassium	10.4000	9.0000	10.0000		104	%	80 - 120	
					RPD = 14.4		RPDLimit = 15	
Selenium	1.0000	1.0300	1.0000		100	%	80 - 120	
					RPD = 3.0		RPDLimit = 15	
Silver	0.9990	1.0100	1.0000		100	%	80 - 120	
					RPD = 1.1		RPDLimit = 15	
Sodium	8.7100	8.4400	10.0000		87	%	80 - 120	
					RPD = 3.1		RPDLimit = 15	
Thallium	1.0200	1.0400	1.0000		102	%	80 - 120	
					RPD = 1.9		RPDLimit = 15	
Vanadium	0.9420	0.9540	1.0000		94	%	80 - 120	
					RPD = 1.3		RPDLimit = 15	
Zinc	0.9930	1.0200	1.0000		99	%	80 - 120	
					RPD = 2.7		RPDLimit = 15	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW6010B **Units.....:** mg/L **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_W-9/16/2009 **RunID:** ICP_090914A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0909042-08AMS	1	9/16/2009 12:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	0.7240		1.0000		72	%	75 - 125	S
Antimony	0.8780		1.0000		88	%	75 - 125	
Arsenic	0.8780		1.0000		88	%	75 - 125	
Barium	1.0300		1.0000	0.0920	94	%	75 - 125	
Beryllium	0.9320		1.0000		93	%	75 - 125	
Cadmium	0.9340		1.0000		93	%	75 - 125	
Chromium	0.8960		1.0000		90	%	75 - 125	
Cobalt	0.8570		1.0000		86	%	75 - 125	
Copper	0.8800		1.0000		88	%	75 - 125	
Iron	0.8590		1.0000		86	%	75 - 125	
Lead	0.8020		1.0000		80	%	75 - 125	
Manganese	0.8950		1.0000	0.0210	87	%	75 - 125	
Nickel	0.8570		1.0000		86	%	75 - 125	
Selenium	0.9270		1.0000		93	%	75 - 125	
Silver	0.9900		1.0000		99	%	75 - 125	
Thallium	0.8900		1.0000		89	%	75 - 125	
Vanadium	0.9470		1.0000		95	%	75 - 125	
Zinc	0.8730		1.0000		87	%	75 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW6010B **Units.....:** mg/L **Analyst...:** JOL

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_W-9/16/2009 **RunID:** ICP_090914A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSD	Matrix Spike Duplicate	0909042-08AMSD	1	9/16/2009 12:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Aluminum	0.8830	0.7240	1.0000		88	%	75 - 125	
					RPD = 19.8		RPDLimit = 15	
Antimony	0.8140	0.8780	1.0000		81	%	75 - 125	
					RPD = 7.6		RPDLimit = 15	
Arsenic	0.8550	0.8780	1.0000		86	%	75 - 125	
					RPD = 2.7		RPDLimit = 15	
Barium	0.9990	1.0300	1.0000	0.0920	91	%	75 - 125	
					RPD = 3.1		RPDLimit = 15	
Beryllium	0.8990	0.9320	1.0000		90	%	75 - 125	
					RPD = 3.6		RPDLimit = 15	
Cadmium	0.9220	0.9340	1.0000		92	%	75 - 125	
					RPD = 1.3		RPDLimit = 15	
Chromium	0.9050	0.8960	1.0000		91	%	75 - 125	
					RPD = 1.0		RPDLimit = 15	
Cobalt	0.8950	0.8570	1.0000		90	%	75 - 125	
					RPD = 4.3		RPDLimit = 15	
Copper	0.8880	0.8800	1.0000		89	%	75 - 125	
					RPD = 0.9		RPDLimit = 15	
Iron	0.8670	0.8590	1.0000		87	%	75 - 125	
					RPD = 0.9		RPDLimit = 15	
Lead	0.8000	0.8020	1.0000		80	%	75 - 125	
					RPD = 0.2		RPDLimit = 15	
Manganese	0.8820	0.8950	1.0000	0.0210	86	%	75 - 125	
					RPD = 1.5		RPDLimit = 15	
Nickel	0.8860	0.8570	1.0000		89	%	75 - 125	
					RPD = 3.3		RPDLimit = 15	
Selenium	0.9820	0.9270	1.0000		98	%	75 - 125	
					RPD = 5.8		RPDLimit = 15	
Silver	0.9840	0.9900	1.0000		98	%	75 - 125	
					RPD = 0.6		RPDLimit = 15	
Thallium	0.8500	0.8900	1.0000		85	%	75 - 125	
					RPD = 4.6		RPDLimit = 15	
Vanadium	0.9120	0.9470	1.0000		91	%	75 - 125	
					RPD = 3.8		RPDLimit = 15	
Zinc	0.8910	0.8730	1.0000		89	%	75 - 125	
					RPD = 2.0		RPDLimit = 15	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: 8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: 8270 Semivolatiles by SIM **Batch.....:** SVOC1_090917B **RunID:** SVOC1_090917B

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK14A	1	9/22/2009 3:44:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2-Diphenylhydrazine	< .0860						-	
2,4-Dinitrotoluene	< .2100						-	
2,6-Dinitrotoluene	< .2100						-	
3,3´-Dichlorobenzidine	< .3200						-	
4-Bromophenylphenylether	< .1600						-	
4-Chlorophenylphenylether	< .1800						-	
Acenaphthene	< .2200						-	
Benzidine	< .2300						-	
Benzo(a)anthracene	< .1900						-	
Benzo(a)pyrene	< .1300						-	
Benzo(b)fluoranthene	< .1600						-	
Bis(2-chloroethoxy)methane	< .0680						-	
Bis(2-chloroethyl)ether	< .0720						-	
Dibenz(a,h)anthracene	< .1900						-	
Hexachlorobenzene	< .4300						-	
Indeno(1,2,3-cd)pyrene	< .1400						-	
2-Naphthylamine	< .3600						-	
N-Nitrosodimethylamine	< .0920						-	
N-Nitrosodi-n-propylamine	< .0670						-	
Pentachlorophenol	< .7800						-	
4-Aminobiphenyl	< 0.0460						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK14A	1	9/18/2009 4:24:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	< .6240						-	
1,2,4-Trichlorobenzene	< .5620						-	
1,2-Dichlorobenzene	< .5560						-	
1,2-Diphenylhydrazine	< 1.0200						-	
1,3-Dichlorobenzene	< .5440						-	
1,4-Dichlorobenzene	< .6010						-	
2,3,4,6-Tetrachlorophenol	< .8580						-	
2,4,5-Trichlorophenol	< .7590						-	
2,4,6-Trichlorophenol	< .7400						-	
2,4-Dichlorophenol	< .6650						-	
2,4-Dimethylphenol	< .6970						-	
2,4-Dinitrophenol	< 2.1500						-	
2,4-Dinitrotoluene	< .6630						-	
2,6-Dichlorophenol	< .6650						-	
2,6-Dinitrotoluene	< .7960						-	
2-Chloronaphthalene	< .5460						-	
2-Chlorophenol	< .7980						-	
2-Methylnaphthalene	< .6030						-	
2-Methylphenol	< .9460						-	
2-Naphthylamine	< 1.6000						-	
2-Nitroaniline	< 1.1700						-	
2-Nitrophenol	< .8240						-	
3-Nitroaniline	< 1.9900						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK14A	1	9/18/2009 4:24:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
4,6-Dinitro-2-methylphenol	< 1.5500						-	
4-Aminobiphenyl	< 5.2500						-	
4-Bromophenyl phenyl ether	< .5930						-	
4-Chloro-3-methylphenol	< .7750						-	
4-Chloroaniline	< 4.0600						-	
4-Chlorophenyl phenyl ether	< 1.0300						-	
4-Methylphenol	< .7710						-	
4-Nitroaniline	< 2.4800						-	
4-Nitrophenol	< 1.2900						-	
Acenaphthene	< .6410						-	
Acenaphthylene	< .4910						-	
Acetophenone	< .7700						-	
Aniline	< .5780						-	
Anthracene	< .7410						-	
Benzo(a)anthracene	< .7870						-	
Benzo(a)pyrene	< .8470						-	
Benzo(b)fluoranthene	< 1.1200						-	
Benzo(g,h,i)perylene	< 1.1700						-	
Benzo(k)fluoranthene	< 1.1600						-	
Benzoic acid	< 2.4900						-	
Benzyl alcohol	< 1.2700						-	
Bis(2-chloroethoxy)methane	< .8220						-	
Bis(2-chloroethyl)ether	< .5550						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK14A	1	9/18/2009 4:24:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Bis(2-chloroisopropyl)ether	< .6070						-	
Bis(2-ethylhexyl)phthalate	< 2.5800						-	
Butyl benzyl phthalate	< 2.2500						-	
Carbazole	< 1.5500						-	
Chrysene	< .8260						-	
Di-n-butyl phthalate	< 1.1000						-	
Di-n-octyl phthalate	< 3.4100						-	
Dibenz(a,h)anthracene	< 1.2300						-	
Dibenzofuran	< .7370						-	
Diethyl phthalate	< .9160						-	
Dimethyl phthalate	< .8170						-	
Diphenylamine	< .5770						-	
Fluoranthene	< 1.0400						-	
Fluorene	< .6380						-	
Hexachlorobenzene	< .2600						-	
Hexachlorobutadiene	< .6050						-	
Hexachlorocyclopentadiene	< 1.0200						-	
Hexachloroethane	< .6730						-	
Indeno(1,2,3-cd)pyrene	< 1.0900						-	
Isophorone	< .7460						-	
N-Nitrosodi-n-propylamine	< .9660						-	
N-Nitrosodimethylamine	< .9730						-	
N-Nitrosodiphenylamine	< .5770						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK14A	1	9/18/2009 4:24:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Naphthalene	< .7670						-	
Nitrobenzene	< .6380						-	
Pentachlorobenzene	< 1.2500						-	
Pentachloronitrobenzene	< .5790						-	
Pentachlorophenol	< 1.0600						-	
Phenanthrene	< .6840						-	
Phenol	< .5090						-	
Pyrene	< 1.9000						-	
Pyridine	< 2.5800						-	
3,3´-Dichlorobenzidine	< 1.9300						-	
Benzidine	< 18.0000						-	
3-Methylphenol	< 2.2300						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS14A	1	9/18/2009 5:05:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	44.4000		50.0000		89	%	45 - 135	
1,2,4-Trichlorobenzene	47.5000		50.0000		95	%	44 - 125	
1,2-Dichlorobenzene	48.0000		50.0000		96	%	45 - 125	
1,2-Diphenylhydrazine	49.4000		50.0000		99	%	45 - 135	
1,3-Dichlorobenzene	45.6000		50.0000		91	%	39 - 125	
1,4-Dichlorobenzene	46.9000		50.0000		94	%	35 - 125	
2,3,4,6-Tetrachlorophenol	40.2000		50.0000		80	%	45 - 135	
2,4,5-Trichlorophenol	46.6000		50.0000		93	%	49 - 125	
2,4,6-Trichlorophenol	46.5000		50.0000		93	%	43 - 125	
2,4-Dichlorophenol	49.8000		50.0000		100	%	45 - 125	
2,4-Dimethylphenol	42.1000		50.0000		84	%	32 - 125	
2,4-Dinitrophenol	52.5000		50.0000		105	%	25 - 132	
2,4-Dinitrotoluene	47.6000		50.0000		95	%	48 - 125	
2,6-Dichlorophenol	41.8000		50.0000		84	%	45 - 135	
2,6-Dinitrotoluene	48.0000		50.0000		96	%	48 - 125	
2-Chloronaphthalene	46.0000		50.0000		92	%	45 - 125	
2-Chlorophenol	43.8000		50.0000		88	%	44 - 125	
2-Methylnaphthalene	43.0000		50.0000		86	%	47 - 125	
2-Methylphenol	46.4000		50.0000		93	%	40 - 125	
2-Naphthylamine	46.4000		50.0000		93	%	45 - 135	
2-Nitroaniline	42.4000		50.0000		85	%	44 - 125	
2-Nitrophenol	42.6000		50.0000		85	%	42 - 125	
3-Nitroaniline	17.3000		50.0000		35	%	27 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS14A	1	9/18/2009 5:05:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
4,6-Dinitro-2-methylphenol	54.5000		50.0000		109	%	29 - 137	
4-Bromophenyl phenyl ether	47.0000		50.0000		94	%	46 - 125	
4-Chloro-3-methylphenol	50.2000		50.0000		100	%	46 - 125	
4-Chloroaniline	20.8000		50.0000		42	%	25 - 125	
4-Chlorophenyl phenyl ether	46.5000		50.0000		93	%	47 - 125	
4-Methylphenol	47.8000		50.0000		96	%	41 - 125	
4-Nitroaniline	29.4000		50.0000		59	%	34 - 125	
4-Nitrophenol	45.1000		50.0000		90	%	25 - 138	
Acenaphthene	47.1000		50.0000		94	%	46 - 125	
Acenaphthylene	44.0000		50.0000		88	%	44 - 125	
Acetophenone	50.8000		50.0000		102	%	45 - 135	
Aniline	37.9000		50.0000		76	%	45 - 135	
Anthracene	47.6000		50.0000		95	%	53 - 125	
Benzo(a)anthracene	49.0000		50.0000		98	%	52 - 125	
Benzo(a)pyrene	50.2000		50.0000		100	%	50 - 125	
Benzo(b)fluoranthene	50.1000		50.0000		100	%	45 - 125	
Benzo(g,h,i)perylene	49.0000		50.0000		98	%	38 - 126	
Benzo(k)fluoranthene	48.8000		50.0000		98	%	45 - 125	
Benzoic acid	35.9000		50.0000		72	%	25 - 125	
Benzyl alcohol	43.8000		50.0000		88	%	25 - 125	
Bis(2-chloroethoxy)methane	48.1000		50.0000		96	%	43 - 125	
Bis(2-chloroethyl)ether	40.2000		50.0000		80	%	38 - 125	
Bis(2-chloroisopropyl)ether	49.3000		50.0000		99	%	25 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS14A	1	9/18/2009 5:05:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Bis(2-ethylhexyl)phthalate	48.7000		50.0000		97	%	47 - 127	
Butyl benzyl phthalate	48.6000		50.0000		97	%	49 - 125	
Chrysene	48.0000		50.0000		96	%	53 - 125	
Di-n-butyl phthalate	48.7000		50.0000		97	%	56 - 125	
Di-n-octyl phthalate	51.9000		50.0000		104	%	41 - 132	
Dibenz(a,h)anthracene	51.7000		50.0000		103	%	41 - 125	
Dibenzofuran	45.5000		50.0000		91	%	51 - 125	
Diethyl phthalate	47.2000		50.0000		94	%	50 - 125	
Dimethyl phthalate	46.7000		50.0000		93	%	49 - 125	
Fluoranthene	47.2000		50.0000		94	%	54 - 125	
Fluorene	47.6000		50.0000		95	%	49 - 125	
Hexachlorobenzene	44.9000		50.0000		90	%	47 - 125	
Hexachlorobutadiene	48.7000		50.0000		97	%	40 - 125	
Hexachlorocyclopentadiene	53.0000		50.0000		106	%	45 - 135	
Hexachloroethane	52.2000		50.0000		104	%	34 - 125	
Indeno(1,2,3-cd)pyrene	51.5000		50.0000		103	%	38 - 125	
Isophorone	45.7000		50.0000		91	%	43 - 125	
N-Nitrosodi-n-propylamine	51.1000		50.0000		102	%	40 - 125	
N-Nitrosodimethylamine	21.0000		50.0000		42	%	40 - 135	
N-Nitrosodiphenylamine	30.6000		50.0000		61	%	49 - 125	
Naphthalene	46.8000		50.0000		94	%	40 - 125	
Nitrobenzene	45.9000		50.0000		92	%	41 - 125	
Pentachlorophenol	54.3000		50.0000		109	%	25 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS14A	1	9/18/2009 5:05:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Phenanthrene	47.9000		50.0000		96	%	50 - 125	
Phenol	39.5000		50.0000		79	%	39 - 125	
Pyrene	49.0000		50.0000		98	%	46 - 125	
Pyridine	24.3000		50.0000		49	%	45 - 135	
3,3´-Dichlorobenzidine	44.1000		50.0000		88	%	25 - 128	
Benzidine	41.0000		50.0000		82	%	15 - 245	
3-Methylphenol	47.2000		50.0000		94	%	45 - 135	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909042-07AMS	1	9/18/2009 6:21:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	42.6000		50.0000		85	%	45 - 135	
1,2,4-Trichlorobenzene	45.9000		50.0000		92	%	44 - 125	
1,2-Dichlorobenzene	47.0000		50.0000		94	%	45 - 125	
1,2-Diphenylhydrazine	49.6000		50.0000		99	%	45 - 135	
1,3-Dichlorobenzene	44.4000		50.0000		89	%	39 - 125	
1,4-Dichlorobenzene	45.6000		50.0000		91	%	35 - 125	
2,3,4,6-Tetrachlorophenol	38.9000		50.0000		78	%	45 - 135	
2,4,5-Trichlorophenol	44.3000		50.0000		89	%	49 - 125	
2,4,6-Trichlorophenol	43.6000		50.0000		87	%	43 - 125	
2,4-Dichlorophenol	47.2000		50.0000		94	%	45 - 125	
2,4-Dimethylphenol	38.6000		50.0000		77	%	32 - 125	
2,4-Dinitrophenol	53.2000		50.0000		106	%	25 - 132	
2,4-Dinitrotoluene	48.2000		50.0000		96	%	48 - 125	
2,6-Dichlorophenol	39.5000		50.0000		79	%	45 - 135	
2,6-Dinitrotoluene	46.3000		50.0000		93	%	48 - 125	
2-Chloronaphthalene	44.4000		50.0000		89	%	45 - 125	
2-Chlorophenol	40.8000		50.0000		82	%	44 - 125	
2-Methylnaphthalene	42.1000		50.0000		84	%	47 - 125	
2-Methylphenol	44.6000		50.0000		89	%	40 - 125	
2-Naphthylamine	45.0000		50.0000		90	%	45 - 135	
2-Nitroaniline	42.4000		50.0000		85	%	44 - 125	
2-Nitrophenol	40.2000		50.0000		80	%	42 - 125	
3-Nitroaniline	23.6000		50.0000		47	%	27 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909042-07AMS	1	9/18/2009 6:21:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
4,6-Dinitro-2-methylphenol	52.6000		50.0000		105	%	29 - 137	
4-Bromophenyl phenyl ether	43.6000		50.0000		87	%	46 - 125	
4-Chloro-3-methylphenol	48.3000		50.0000		97	%	46 - 125	
4-Chloroaniline	16.9000		50.0000		34	%	25 - 125	
4-Chlorophenyl phenyl ether	45.9000		50.0000		92	%	47 - 125	
4-Methylphenol	45.3000		50.0000		91	%	41 - 125	
4-Nitroaniline	31.6000		50.0000		63	%	34 - 125	
4-Nitrophenol	42.0000		50.0000		84	%	25 - 138	
Acenaphthene	46.4000		50.0000		93	%	46 - 125	
Acenaphthylene	44.6000		50.0000		89	%	44 - 125	
Acetophenone	49.2000		50.0000		98	%	45 - 135	
Aniline	36.7000		50.0000		73	%	45 - 135	
Anthracene	47.0000		50.0000		94	%	53 - 125	
Benzo(a)anthracene	47.3000		50.0000		95	%	52 - 125	
Benzo(a)pyrene	49.4000		50.0000		99	%	50 - 125	
Benzo(b)fluoranthene	48.4000		50.0000		97	%	45 - 125	
Benzo(g,h,i)perylene	48.9000		50.0000		98	%	38 - 126	
Benzo(k)fluoranthene	47.8000		50.0000		96	%	45 - 125	
Benzoic acid	32.6000		50.0000		65	%	25 - 125	
Benzyl alcohol	40.7000		50.0000		81	%	25 - 125	
Bis(2-chloroethoxy)methane	45.9000		50.0000		92	%	43 - 125	
Bis(2-chloroethyl)ether	35.4000		50.0000		71	%	38 - 125	
Bis(2-chloroisopropyl)ether	47.6000		50.0000		95	%	25 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909042-07AMS	1	9/18/2009 6:21:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Bis(2-ethylhexyl)phthalate	43.2000		50.0000		86	%	47 - 127	
Butyl benzyl phthalate	43.4000		50.0000		87	%	49 - 125	
Chrysene	46.7000		50.0000		93	%	53 - 125	
Di-n-butyl phthalate	47.8000		50.0000		96	%	56 - 125	
Di-n-octyl phthalate	47.0000		50.0000		94	%	41 - 132	
Dibenz(a,h)anthracene	50.4000		50.0000		101	%	41 - 125	
Dibenzofuran	45.1000		50.0000		90	%	51 - 125	
Diethyl phthalate	47.0000		50.0000		94	%	50 - 125	
Dimethyl phthalate	44.8000		50.0000		90	%	49 - 125	
Fluoranthene	48.6000		50.0000		97	%	54 - 125	
Fluorene	48.2000		50.0000		96	%	49 - 125	
Hexachlorobenzene	43.8000		50.0000		88	%	47 - 125	
Hexachlorobutadiene	47.0000		50.0000		94	%	40 - 125	
Hexachlorocyclopentadiene	51.3000		50.0000		103	%	45 - 135	
Hexachloroethane	51.0000		50.0000		102	%	34 - 125	
Indeno(1,2,3-cd)pyrene	49.8000		50.0000		100	%	38 - 125	
Isophorone	42.8000		50.0000		86	%	43 - 125	
N-Nitrosodi-n-propylamine	48.7000		50.0000		97	%	40 - 125	
N-Nitrosodimethylamine	20.7000		50.0000		41	%	40 - 135	
N-Nitrosodiphenylamine	34.1000		50.0000		68	%	49 - 125	
Naphthalene	45.7000		50.0000		91	%	40 - 125	
Nitrobenzene	42.6000		50.0000		85	%	41 - 125	
Pentachlorophenol	53.1000		50.0000		106	%	25 - 125	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909042-07AMS	1	9/18/2009 6:21:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Phenanthrene	46.6000		50.0000		93	%	50 - 125	
Phenol	36.8000		50.0000		74	%	39 - 125	
Pyrene	45.2000		50.0000		90	%	46 - 125	
Pyridine	22.3000		50.0000		45	%	45 - 135	
3,3´-Dichlorobenzidine	41.5000		50.0000		83	%	25 - 128	
Benzidine	39.9000		50.0000		80	%	15 - 245	
3-Methylphenol	45.1000		50.0000		90	%	45 - 135	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909042-07AMSD	1	9/18/2009 7:01:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,2,4,5-Tetrachlorobenzene	42.6000	42.6000	50.0000		85	%	45 - 135	
					RPD = 0.0		RPDLimit = 20	
1,2,4-Trichlorobenzene	45.4000	45.9000	50.0000		91	%	44 - 125	
					RPD = 1.1		RPDLimit = 20	
1,2-Dichlorobenzene	47.6000	47.0000	50.0000		95	%	45 - 125	
					RPD = 1.3		RPDLimit = 20	
1,2-Diphenylhydrazine	48.6000	49.6000	50.0000		97	%	45 - 135	
					RPD = 2.0		RPDLimit = 20	
1,3-Dichlorobenzene	44.2000	44.4000	50.0000		88	%	39 - 125	
					RPD = 0.5		RPDLimit = 20	
1,4-Dichlorobenzene	45.6000	45.6000	50.0000		91	%	35 - 125	
					RPD = 0.0		RPDLimit = 20	
2,3,4,6-Tetrachlorophenol	37.8000	38.9000	50.0000		76	%	45 - 135	
					RPD = 2.9		RPDLimit = 20	
2,4,5-Trichlorophenol	44.0000	44.3000	50.0000		88	%	49 - 125	
					RPD = 0.7		RPDLimit = 20	
2,4,6-Trichlorophenol	43.3000	43.6000	50.0000		87	%	43 - 125	
					RPD = 0.7		RPDLimit = 20	
2,4-Dichlorophenol	46.6000	47.2000	50.0000		93	%	45 - 125	
					RPD = 1.3		RPDLimit = 20	
2,4-Dimethylphenol	37.6000	38.6000	50.0000		75	%	32 - 125	
					RPD = 2.6		RPDLimit = 20	
2,4-Dinitrophenol	50.4000	53.2000	50.0000		101	%	25 - 132	
					RPD = 5.4		RPDLimit = 20	
2,4-Dinitrotoluene	48.6000	48.2000	50.0000		97	%	48 - 125	
					RPD = 0.8		RPDLimit = 20	
2,6-Dichlorophenol	38.5000	39.5000	50.0000		77	%	45 - 135	
					RPD = 2.6		RPDLimit = 20	
2,6-Dinitrotoluene	45.9000	46.3000	50.0000		92	%	48 - 125	
					RPD = 0.9		RPDLimit = 20	
2-Chloronaphthalene	44.7000	44.4000	50.0000		89	%	45 - 125	
					RPD = 0.7		RPDLimit = 20	
2-Chlorophenol	40.5000	40.8000	50.0000		81	%	44 - 125	
					RPD = 0.7		RPDLimit = 20	
2-Methylnaphthalene	41.2000	42.1000	50.0000		82	%	47 - 125	
					RPD = 2.2		RPDLimit = 20	
2-Methylphenol	44.5000	44.6000	50.0000		89	%	40 - 125	
					RPD = 0.2		RPDLimit = 20	
2-Naphthylamine	45.2000	45.0000	50.0000		90	%	45 - 135	
					RPD = 0.4		RPDLimit = 20	
2-Nitroaniline	42.2000	42.4000	50.0000		84	%	44 - 125	
					RPD = 0.5		RPDLimit = 20	
2-Nitrophenol	39.6000	40.2000	50.0000		79	%	42 - 125	
					RPD = 1.5		RPDLimit = 20	
3-Nitroaniline	21.6000	23.6000	50.0000		43	%	27 - 125	
					RPD = 8.8		RPDLimit = 20	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909042-07AMSD	1	9/18/2009 7:01:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
4,6-Dinitro-2-methylphenol	51.2000	52.6000	50.0000		102	%	29 - 137	
					RPD = 2.7		RPDLimit = 20	
4-Bromophenyl phenyl ether	43.8000	43.6000	50.0000		88	%	46 - 125	
					RPD = 0.5		RPDLimit = 20	
4-Chloro-3-methylphenol	47.8000	48.3000	50.0000		96	%	46 - 125	
					RPD = 1.0		RPDLimit = 20	
4-Chloroaniline	11.3000	16.9000	50.0000		23	%	25 - 125	S
					RPD = 39.7		RPDLimit = 20	
4-Chlorophenyl phenyl ether	45.9000	45.9000	50.0000		92	%	47 - 125	
					RPD = 0.0		RPDLimit = 20	
4-Methylphenol	45.2000	45.3000	50.0000		90	%	41 - 125	
					RPD = 0.2		RPDLimit = 20	
4-Nitroaniline	28.4000	31.6000	50.0000		57	%	34 - 125	
					RPD = 10.7		RPDLimit = 20	
4-Nitrophenol	39.9000	42.0000	50.0000		80	%	25 - 138	
					RPD = 5.1		RPDLimit = 20	
Acenaphthene	46.7000	46.4000	50.0000		93	%	46 - 125	
					RPD = 0.6		RPDLimit = 20	
Acenaphthylene	45.7000	44.6000	50.0000		91	%	44 - 125	
					RPD = 2.4		RPDLimit = 20	
Acetophenone	49.9000	49.2000	50.0000		100	%	45 - 135	
					RPD = 1.4		RPDLimit = 20	
Aniline	33.6000	36.7000	50.0000		67	%	45 - 135	
					RPD = 8.8		RPDLimit = 20	
Anthracene	47.3000	47.0000	50.0000		95	%	53 - 125	
					RPD = 0.6		RPDLimit = 20	
Benzo(a)anthracene	48.0000	47.3000	50.0000		96	%	52 - 125	
					RPD = 1.5		RPDLimit = 20	
Benzo(a)pyrene	49.7000	49.4000	50.0000		99	%	50 - 125	
					RPD = 0.6		RPDLimit = 20	
Benzo(b)fluoranthene	49.1000	48.4000	50.0000		98	%	45 - 125	
					RPD = 1.4		RPDLimit = 20	
Benzo(g,h,i)perylene	47.9000	48.9000	50.0000		96	%	38 - 126	
					RPD = 2.1		RPDLimit = 20	
Benzo(k)fluoranthene	48.4000	47.8000	50.0000		97	%	45 - 125	
					RPD = 1.2		RPDLimit = 20	
Benzoic acid	30.4000	32.6000	50.0000		61	%	25 - 125	
					RPD = 7.0		RPDLimit = 20	
Benzyl alcohol	39.9000	40.7000	50.0000		80	%	25 - 125	
					RPD = 2.0		RPDLimit = 20	
Bis(2-chloroethoxy)methane	45.9000	45.9000	50.0000		92	%	43 - 125	
					RPD = 0.0		RPDLimit = 20	
Bis(2-chloroethyl)ether	34.4000	35.4000	50.0000		69	%	38 - 125	
					RPD = 2.9		RPDLimit = 20	
Bis(2-chloroisopropyl)ether	45.8000	47.6000	50.0000		92	%	25 - 125	
					RPD = 3.9		RPDLimit = 20	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909042-07AMSD	1	9/18/2009 7:01:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Bis(2-ethylhexyl)phthalate	48.6000	43.2000	50.0000		97	%	47 - 127	
					RPD = 11.8		RPDLimit = 20	
Butyl benzyl phthalate	43.2000	43.4000	50.0000		86	%	49 - 125	
					RPD = 0.5		RPDLimit = 20	
Chrysene	47.4000	46.7000	50.0000		95	%	53 - 125	
					RPD = 1.5		RPDLimit = 20	
Di-n-butyl phthalate	48.1000	47.8000	50.0000		96	%	56 - 125	
					RPD = 0.6		RPDLimit = 20	
Di-n-octyl phthalate	48.1000	47.0000	50.0000		96	%	41 - 132	
					RPD = 2.3		RPDLimit = 20	
Dibenz(a,h)anthracene	49.5000	50.4000	50.0000		99	%	41 - 125	
					RPD = 1.8		RPDLimit = 20	
Dibenzofuran	45.5000	45.1000	50.0000		91	%	51 - 125	
					RPD = 0.9		RPDLimit = 20	
Diethyl phthalate	47.2000	47.0000	50.0000		94	%	50 - 125	
					RPD = 0.4		RPDLimit = 20	
Dimethyl phthalate	45.4000	44.8000	50.0000		91	%	49 - 125	
					RPD = 1.3		RPDLimit = 20	
Fluoranthene	49.1000	48.6000	50.0000		98	%	54 - 125	
					RPD = 1.0		RPDLimit = 20	
Fluorene	48.6000	48.2000	50.0000		97	%	49 - 125	
					RPD = 0.8		RPDLimit = 20	
Hexachlorobenzene	43.3000	43.8000	50.0000		87	%	47 - 125	
					RPD = 1.1		RPDLimit = 20	
Hexachlorobutadiene	46.4000	47.0000	50.0000		93	%	40 - 125	
					RPD = 1.3		RPDLimit = 20	
Hexachlorocyclopentadiene	47.6000	51.3000	50.0000		95	%	45 - 135	
					RPD = 7.5		RPDLimit = 20	
Hexachloroethane	51.0000	51.0000	50.0000		102	%	34 - 125	
					RPD = 0.0		RPDLimit = 20	
Indeno(1,2,3-cd)pyrene	48.8000	49.8000	50.0000		98	%	38 - 125	
					RPD = 2.0		RPDLimit = 20	
Isophorone	42.1000	42.8000	50.0000		84	%	43 - 125	
					RPD = 1.6		RPDLimit = 20	
N-Nitrosodi-n-propylamine	48.5000	48.7000	50.0000		97	%	40 - 125	
					RPD = 0.4		RPDLimit = 20	
N-Nitrosodimethylamine	20.2000	20.7000	50.0000		40	%	40 - 135	
					RPD = 2.4		RPDLimit = 20	
N-Nitrosodiphenylamine	37.0000	34.1000	50.0000		74	%	49 - 125	
					RPD = 8.2		RPDLimit = 20	
Naphthalene	45.7000	45.7000	50.0000		91	%	40 - 125	
					RPD = 0.0		RPDLimit = 20	
Nitrobenzene	41.1000	42.6000	50.0000		82	%	41 - 125	
					RPD = 3.6		RPDLimit = 20	
Pentachlorophenol	52.0000	53.1000	50.0000		104	%	25 - 125	
					RPD = 2.1		RPDLimit = 20	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8270C **Units.....:** ug/L **Analyst...:** SLF

Method Description..: Semi-volatile Organics by G **Batch.....:** SVOC1_090921A **RunID:** SVOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909042-07AMSD	1	9/18/2009 7:01:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Phenanthrene	47.3000	46.6000	50.0000		95	%	50 - 125	
					RPD = 1.5		RPDLimit = 20	
Phenol	35.0000	36.8000	50.0000		70	%	39 - 125	
					RPD = 5.0		RPDLimit = 20	
Pyrene	46.3000	45.2000	50.0000		93	%	46 - 125	
					RPD = 2.4		RPDLimit = 20	
Pyridine	21.6000	22.3000	50.0000		43	%	45 - 135	S
					RPD = 3.2		RPDLimit = 20	
3,3´-Dichlorobenzidine	42.1000	41.5000	50.0000		84	%	25 - 128	
					RPD = 1.4		RPDLimit = 20	
Benzidine	40.8000	39.9000	50.0000		82	%	15 - 245	
					RPD = 2.2		RPDLimit = 20	
3-Methylphenol	45.1000	45.1000	50.0000		90	%	45 - 135	
					RPD = 0.0		RPDLimit = 20	

Test Method.....: SW7196A **Units.....:** mg/L **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_W-9/11/2009 **RunID:** UV1_090911A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	BLK	1	9/11/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	< .0034						-	

Test Method.....: SW7196A **Units.....:** mg/L **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_W-9/11/2009 **RunID:** UV1_090911A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	LCS	1	9/11/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	0.0500		0.0500		100	%	80 - 120	

Test Method.....: SW7196A **Units.....:** mg/L **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_W-9/11/2009 **RunID:** UV1_090911A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0909042-05AMS	1	9/11/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	0.0500		0.0500		100	%	80 - 120	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW7196A **Units.....:** mg/L **Analyst...:** SS

Method Description..: HEXAVALENT CHROMI **Batch.....:** CR6_W-9/11/2009 **RunID:** UV1_090911A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSD	Matrix Spike Duplicate	0909042-05AMSD	1	9/11/2009

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chromium, Hexavalent	0.0500	0.0500	0.0500		100	%	80 - 120	
					RPD = 0.0		RPDLimit = 20	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090916A **RunID:** VOC1_090916A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK16A	1	9/16/2009 4:31:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	< 1.5000						-	
1,1,1-Trichloroethane	< 2.3100						-	
1,1,2,2-Tetrachloroethane	< 1.6400						-	
1,1,2-Trichloroethane	< 1.4000						-	
1,1-Dichloroethane	< 1.9700						-	
1,1-Dichloroethene	< 1.1000						-	
1,1-Dichloropropene	< 1.4600						-	
1,2,3-Trichlorobenzene	< 4.9500						-	
1,2,3-Trichloropropane	< 1.3500						-	
1,2,4-Trichlorobenzene	< 4.7400						-	
1,2,4-Trimethylbenzene	< 1.8900						-	
1,2-Dibromo-3-chloropropane	< 1.3700						-	
1,2-Dibromoethane	< 1.2800						-	
1,2-Dichlorobenzene	< .7980						-	
1,2-Dichloroethane	< 1.7300						-	
1,2-Dichloropropane	< 1.2600						-	
1,3,5-Trimethylbenzene	< 1.6600						-	
1,3-Dichlorobenzene	< 1.0900						-	
1,3-Dichloropropane	< 1.3200						-	
1,4-Dichlorobenzene	< 1.3400						-	
2,2-Dichloropropane	< 1.3200						-	
2-Butanone	< 8.8300						-	
2-Chlorotoluene	< 1.1900						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090916A **RunID:** VOC1_090916A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK16A	1	9/16/2009 4:31:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Hexanone	< 2.0500						-	
4-Chlorotoluene	< 1.7000						-	
4-Isopropyltoluene	< 1.3100						-	
4-Methyl-2-pentanone	< 1.4700						-	
Acetone	< 10.6000						-	
Allyl chloride	< 1.2400						-	
Benzene	< 1.2600						-	
Bromobenzene	< 1.0000						-	
Bromochloromethane	< 1.4500						-	
Bromodichloromethane	< 0.9910						-	
Bromoform	< 1.4700						-	
Bromomethane	< 2.5300						-	
Carbon disulfide	< 1.2500						-	
Carbon tetrachloride	< 1.7200						-	
Chlorobenzene	< 1.4000						-	
Chloroethane	< 2.1400						-	
Chloroform	< 2.3500						-	
Chloromethane	< 2.4400						-	
cis-1,2-Dichloroethene	< 1.8000						-	
cis-1,3-Dichloropropene	< 1.2900						-	
Dibromochloromethane	< 1.2900						-	
Dibromomethane	< 2.3000						-	
Dichlorodifluoromethane	< 3.9600						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/30/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090916A **RunID:** VOC1_090916A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK16A	1	9/16/2009 4:31:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Ethylbenzene	< 1.6000						-	
Hexachlorobutadiene	< 3.0300						-	
Iodomethane	< 1.2300						-	
Isopropylbenzene	< 2.0800						-	
m,p-Xylene	< 2.5300						-	
Methyl tert-butyl ether	< 2.0100						-	
Methylene chloride	< 1.3200						-	
n-Butylbenzene	< 1.3200						-	
n-Propylbenzene	< 1.4300						-	
Naphthalene	< 6.6200						-	
o-Xylene	< 1.4800						-	
sec-Butylbenzene	< .8820						-	
Styrene	< 1.3300						-	
tert-Butylbenzene	< 1.2800						-	
Tetrachloroethene	< 1.5300						-	
Toluene	< 1.4800						-	
trans-1,2-Dichloroethene	< 1.5800						-	
trans-1,3-Dichloropropene	< 1.3100						-	
Trichloroethene	< 1.3900						-	
Trichlorofluoromethane	< 1.3700						-	
Vinyl chloride	< .9300						-	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090916A **RunID:** VOC1_090916A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS16A	1	9/16/2009 5:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	48.1000		50.0000		96	%	70 - 130	
1,1,1-Trichloroethane	52.5000		50.0000		105	%	67 - 132	
1,1,2,2-Tetrachloroethane	42.8000		50.0000		86	%	63 - 128	
1,1,2-Trichloroethane	49.5000		50.0000		99	%	70 - 130	
1,1-Dichloroethane	53.0000		50.0000		106	%	69 - 133	
1,1-Dichloroethene	51.8000		50.0000		104	%	64 - 144	
1,1-Dichloropropene	48.5000		50.0000		97	%	70 - 130	
1,2,3-Trichlorobenzene	44.4000		50.0000		89	%	67 - 137	
1,2,3-Trichloropropane	42.1000		50.0000		84	%	70 - 130	
1,2,4-Trichlorobenzene	40.6000		50.0000		81	%	66 - 134	
1,2,4-Trimethylbenzene	42.7000		50.0000		85	%	70 - 130	
1,2-Dibromo-3-chloropropane	45.2000		50.0000		90	%	50 - 132	
1,2-Dibromoethane	48.5000		50.0000		97	%	70 - 130	
1,2-Dichlorobenzene	43.8000		50.0000		88	%	70 - 130	
1,2-Dichloroethane	48.4000		50.0000		97	%	69 - 132	
1,2-Dichloropropane	47.9000		50.0000		96	%	70 - 130	
1,3,5-Trimethylbenzene	42.4000		50.0000		85	%	70 - 130	
1,3-Dichlorobenzene	44.9000		50.0000		90	%	75 - 124	
1,3-Dichloropropane	48.2000		50.0000		96	%	70 - 126	
1,4-Dichlorobenzene	43.4000		50.0000		87	%	74 - 123	
2,2-Dichloropropane	54.3000		50.0000		109	%	69 - 137	
2-Butanone	90.3000		100.0000		90	%	49 - 136	
2-Chlorotoluene	43.9000		50.0000		88	%	73 - 126	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090916A **RunID:** VOC1_090916A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS16A	1	9/16/2009 5:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Hexanone	95.2000		100.0000		95	%	58 - 134	
4-Chlorotoluene	43.7000		50.0000		87	%	70 - 130	
4-Isopropyltoluene	45.8000		50.0000		92	%	73 - 130	
4-Methyl-2-pentanone	92.2000		100.0000		92	%	58 - 134	
Acetone	94.4000		100.0000		94	%	40 - 135	
Allyl chloride	53.2000		50.0000		106	%	60 - 140	
Benzene	47.4000		50.0000		95	%	66 - 129	
Bromobenzene	42.4000		50.0000		85	%	70 - 130	
Bromochloromethane	53.6000		50.0000		107	%	65 - 129	
Bromodichloromethane	47.8000		50.0000		96	%	70 - 130	
Bromoform	49.8000		50.0000		100	%	69 - 128	
Bromomethane	50.1000		50.0000		100	%	53 - 141	
Carbon disulfide	54.3000		50.0000		109	%	55 - 145	
Carbon tetrachloride	47.1000		50.0000		94	%	66 - 138	
Chlorobenzene	47.3000		50.0000		95	%	68 - 127	
Chloroethane	55.7000		50.0000		111	%	58 - 133	
Chloroform	52.7000		50.0000		105	%	69 - 128	
Chloromethane	52.3000		50.0000		105	%	56 - 131	
cis-1,2-Dichloroethene	51.3000		50.0000		103	%	72 - 126	
cis-1,3-Dichloropropene	48.8000		50.0000		98	%	69 - 131	
Dibromochloromethane	48.4000		50.0000		97	%	66 - 133	
Dibromomethane	46.8000		50.0000		94	%	70 - 130	
Dichlorodifluoromethane	52.0000		50.0000		104	%	53 - 153	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090916A **RunID:** VOC1_090916A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LFB		09LCS16A	1	9/16/2009 5:15:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Ethylbenzene	48.0000		50.0000		96	%	73 - 127	
Hexachlorobutadiene	41.4000		50.0000		83	%	67 - 131	
Iodomethane	52.7000		50.0000		105	%	52 - 147	
Isopropylbenzene	43.0000		50.0000		86	%	70 - 130	
m,p-Xylene	95.5000		100.0000		96	%	70 - 130	
Methyl tert-butyl ether	52.1000		50.0000		104	%	61 - 140	
Methylene chloride	53.7000		50.0000		107	%	63 - 137	
n-Butylbenzene	44.2000		50.0000		88	%	69 - 137	
n-Propylbenzene	43.8000		50.0000		88	%	70 - 130	
Naphthalene	47.4000		50.0000		95	%	54 - 138	
o-Xylene	48.9000		50.0000		98	%	70 - 130	
sec-Butylbenzene	44.1000		50.0000		88	%	70 - 130	
Styrene	48.3000		50.0000		97	%	65 - 134	
tert-Butylbenzene	42.7000		50.0000		85	%	70 - 129	
Tetrachloroethene	50.4000		50.0000		101	%	66 - 128	
Toluene	46.6000		50.0000		93	%	74 - 124	
trans-1,2-Dichloroethene	50.8000		50.0000		102	%	63 - 137	
trans-1,3-Dichloropropene	49.8000		50.0000		100	%	59 - 135	
Trichloroethene	48.4000		50.0000		97	%	70 - 127	
Trichlorofluoromethane	53.6000		50.0000		107	%	57 - 129	
Vinyl chloride	55.1000		50.0000		110	%	50 - 134	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090916A **RunID:** VOC1_090916A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909042-03AMS	1	9/16/2009 8:10:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	51.3000		50.0000		103	%	70 - 130	
1,1,1-Trichloroethane	51.5000		50.0000		103	%	67 - 132	
1,1,2,2-Tetrachloroethane	44.6000		50.0000		89	%	63 - 128	
1,1,2-Trichloroethane	52.4000		50.0000		105	%	70 - 130	
1,1-Dichloroethane	49.6000		50.0000		99	%	69 - 133	
1,1-Dichloroethene	53.8000		50.0000		108	%	64 - 144	
1,1-Dichloropropene	49.6000		50.0000		99	%	70 - 130	
1,2,3-Trichlorobenzene	44.2000		50.0000		88	%	67 - 137	
1,2,3-Trichloropropane	41.0000		50.0000		82	%	70 - 130	
1,2,4-Trichlorobenzene	44.2000		50.0000		88	%	66 - 134	
1,2,4-Trimethylbenzene	40.9000		50.0000		82	%	70 - 130	
1,2-Dibromo-3-chloropropane	44.5000		50.0000		89	%	50 - 132	
1,2-Dibromoethane	49.9000		50.0000		100	%	70 - 130	
1,2-Dichlorobenzene	43.2000		50.0000		86	%	70 - 130	
1,2-Dichloroethane	53.4000		50.0000		107	%	69 - 132	
1,2-Dichloropropane	49.0000		50.0000		98	%	70 - 130	
1,3,5-Trimethylbenzene	42.4000		50.0000		85	%	70 - 130	
1,3-Dichlorobenzene	42.0000		50.0000		84	%	75 - 124	
1,3-Dichloropropane	50.4000		50.0000		101	%	70 - 126	
1,4-Dichlorobenzene	41.0000		50.0000		82	%	74 - 123	
2,2-Dichloropropane	49.7000		50.0000		99	%	69 - 137	
2-Butanone	93.4000		100.0000		93	%	49 - 136	
2-Chlorotoluene	42.3000		50.0000		85	%	73 - 126	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090916A **RunID:** VOC1_090916A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909042-03AMS	1	9/16/2009 8:10:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Hexanone	94.7000		100.0000		95	%	58 - 134	
4-Chlorotoluene	42.0000		50.0000		84	%	70 - 130	
4-Isopropyltoluene	43.4000		50.0000		87	%	73 - 130	
4-Methyl-2-pentanone	92.2000		100.0000		92	%	58 - 134	
Acetone	93.1000		100.0000		93	%	40 - 135	
Allyl chloride	55.6000		50.0000		111	%	60 - 140	
Benzene	47.2000		50.0000		94	%	66 - 129	
Bromobenzene	46.0000		50.0000		92	%	70 - 130	
Bromochloromethane	47.0000		50.0000		94	%	65 - 129	
Bromodichloromethane	51.0000		50.0000		102	%	70 - 130	
Bromoform	52.2000		50.0000		104	%	69 - 128	
Bromomethane	50.6000		50.0000		101	%	53 - 141	
Carbon disulfide	56.7000		50.0000		113	%	55 - 145	
Carbon tetrachloride	50.2000		50.0000		100	%	66 - 138	
Chlorobenzene	48.4000		50.0000		97	%	68 - 127	
Chloroethane	57.0000		50.0000		114	%	58 - 133	
Chloroform	49.8000		50.0000		100	%	69 - 128	
Chloromethane	54.4000		50.0000		109	%	56 - 131	
cis-1,2-Dichloroethene	54.5000		50.0000		109	%	72 - 126	
cis-1,3-Dichloropropene	50.4000		50.0000		101	%	69 - 131	
Dibromochloromethane	50.0000		50.0000		100	%	66 - 133	
Dibromomethane	49.2000		50.0000		98	%	70 - 130	
Dichlorodifluoromethane	56.6000		50.0000		113	%	53 - 153	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090916A **RunID:** VOC1_090916A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS_F		0909042-03AMS	1	9/16/2009 8:10:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Ethylbenzene	49.3000		50.0000		99	%	73 - 127	
Hexachlorobutadiene	40.2000		50.0000		80	%	67 - 131	
Iodomethane	55.7000		50.0000		111	%	52 - 147	
Isopropylbenzene	40.8000		50.0000		82	%	70 - 130	
m,p-Xylene	100.0000		100.0000		100	%	70 - 130	
Methyl tert-butyl ether	49.2000		50.0000		98	%	61 - 140	
Methylene chloride	56.1000		50.0000		112	%	63 - 137	
n-Butylbenzene	43.4000		50.0000		87	%	69 - 137	
n-Propylbenzene	40.8000		50.0000		82	%	70 - 130	
Naphthalene	43.9000		50.0000		88	%	54 - 138	
o-Xylene	52.0000		50.0000		104	%	70 - 130	
sec-Butylbenzene	43.0000		50.0000		86	%	70 - 130	
Styrene	51.2000		50.0000		102	%	65 - 134	
tert-Butylbenzene	45.0000		50.0000		90	%	70 - 129	
Tetrachloroethene	43.9000		50.0000		88	%	66 - 128	
Toluene	48.3000		50.0000		97	%	74 - 124	
trans-1,2-Dichloroethene	53.7000		50.0000		107	%	63 - 137	
trans-1,3-Dichloropropene	51.6000		50.0000		103	%	59 - 135	
Trichloroethene	46.2000		50.0000		92	%	70 - 127	
Trichlorofluoromethane	52.1000		50.0000		104	%	57 - 129	
Vinyl chloride	50.9000		50.0000		102	%	50 - 134	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090916A **RunID:** VOC1_090916A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909042-03AMSD	1	9/16/2009 8:53:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1,1,2-Tetrachloroethane	50.0000	51.3000	50.0000		100	%	70 - 130	
					RPD = 2.6		RPDLimit = 20	
1,1,1-Trichloroethane	49.5000	51.5000	50.0000		99	%	67 - 132	
					RPD = 4.0		RPDLimit = 20	
1,1,2,2-Tetrachloroethane	47.4000	44.6000	50.0000		95	%	63 - 128	
					RPD = 6.1		RPDLimit = 20	
1,1,2-Trichloroethane	50.2000	52.4000	50.0000		100	%	70 - 130	
					RPD = 4.3		RPDLimit = 20	
1,1-Dichloroethane	48.9000	49.6000	50.0000		98	%	69 - 133	
					RPD = 1.4		RPDLimit = 20	
1,1-Dichloroethene	55.4000	53.8000	50.0000		111	%	64 - 144	
					RPD = 2.9		RPDLimit = 20	
1,1-Dichloropropene	49.6000	49.6000	50.0000		99	%	70 - 130	
					RPD = 0.0		RPDLimit = 20	
1,2,3-Trichlorobenzene	47.2000	44.2000	50.0000		94	%	67 - 137	
					RPD = 6.6		RPDLimit = 20	
1,2,3-Trichloropropane	42.9000	41.0000	50.0000		86	%	70 - 130	
					RPD = 4.5		RPDLimit = 20	
1,2,4-Trichlorobenzene	40.8000	44.2000	50.0000		82	%	66 - 134	
					RPD = 8.0		RPDLimit = 20	
1,2,4-Trimethylbenzene	43.8000	40.9000	50.0000		88	%	70 - 130	
					RPD = 6.8		RPDLimit = 20	
1,2-Dibromo-3-chloropropane	51.3000	44.5000	50.0000		103	%	50 - 132	
					RPD = 14.2		RPDLimit = 20	
1,2-Dibromoethane	50.3000	49.9000	50.0000		101	%	70 - 130	
					RPD = 0.8		RPDLimit = 20	
1,2-Dichlorobenzene	45.5000	43.2000	50.0000		91	%	70 - 130	
					RPD = 5.2		RPDLimit = 20	
1,2-Dichloroethane	51.2000	53.4000	50.0000		102	%	69 - 132	
					RPD = 4.2		RPDLimit = 20	
1,2-Dichloropropane	50.1000	49.0000	50.0000		100	%	70 - 130	
					RPD = 2.2		RPDLimit = 20	
1,3,5-Trimethylbenzene	44.6000	42.4000	50.0000		89	%	70 - 130	
					RPD = 5.1		RPDLimit = 20	
1,3-Dichlorobenzene	45.2000	42.0000	50.0000		90	%	75 - 124	
					RPD = 7.3		RPDLimit = 20	
1,3-Dichloropropane	50.0000	50.4000	50.0000		100	%	70 - 126	
					RPD = 0.8		RPDLimit = 20	
1,4-Dichlorobenzene	44.0000	41.0000	50.0000		88	%	74 - 123	
					RPD = 7.1		RPDLimit = 20	
2,2-Dichloropropane	47.9000	49.7000	50.0000		96	%	69 - 137	
					RPD = 3.7		RPDLimit = 20	
2-Butanone	92.8000	93.4000	100.0000		93	%	49 - 136	
					RPD = 0.6		RPDLimit = 20	
2-Chlorotoluene	45.4000	42.3000	50.0000		91	%	73 - 126	
					RPD = 7.1		RPDLimit = 20	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090916A **RunID:** VOC1_090916A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909042-03AMSD	1	9/16/2009 8:53:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
2-Hexanone	92.9000	94.7000	100.0000		93	%	58 - 134	
					RPD = 1.9		RPDLimit = 20	
4-Chlorotoluene	45.3000	42.0000	50.0000		91	%	70 - 130	
					RPD = 7.6		RPDLimit = 20	
4-Isopropyltoluene	45.1000	43.4000	50.0000		90	%	73 - 130	
					RPD = 3.8		RPDLimit = 20	
4-Methyl-2-pentanone	91.4000	92.2000	100.0000		91	%	58 - 134	
					RPD = 0.9		RPDLimit = 20	
Acetone	93.3000	93.1000	100.0000		93	%	40 - 135	
					RPD = 0.2		RPDLimit = 20	
Allyl chloride	48.0000	55.6000	50.0000		96	%	60 - 140	
					RPD = 14.7		RPDLimit = 20	
Benzene	47.5000	47.2000	50.0000		95	%	66 - 129	
					RPD = 0.6		RPDLimit = 20	
Bromobenzene	42.6000	46.0000	50.0000		85	%	70 - 130	
					RPD = 7.7		RPDLimit = 20	
Bromochloromethane	49.3000	47.0000	50.0000		99	%	65 - 129	
					RPD = 4.8		RPDLimit = 20	
Bromodichloromethane	50.5000	51.0000	50.0000		101	%	70 - 130	
					RPD = 1.0		RPDLimit = 20	
Bromoform	50.8000	52.2000	50.0000		102	%	69 - 128	
					RPD = 2.7		RPDLimit = 20	
Bromomethane	53.6000	50.6000	50.0000		107	%	53 - 141	
					RPD = 5.8		RPDLimit = 20	
Carbon disulfide	49.2000	56.7000	50.0000		98	%	55 - 145	
					RPD = 14.2		RPDLimit = 20	
Carbon tetrachloride	49.4000	50.2000	50.0000		99	%	66 - 138	
					RPD = 1.6		RPDLimit = 20	
Chlorobenzene	48.0000	48.4000	50.0000		96	%	68 - 127	
					RPD = 0.8		RPDLimit = 20	
Chloroethane	51.7000	57.0000	50.0000		103	%	58 - 133	
					RPD = 9.8		RPDLimit = 20	
Chloroform	48.4000	49.8000	50.0000		97	%	69 - 128	
					RPD = 2.9		RPDLimit = 20	
Chloromethane	53.5000	54.4000	50.0000		107	%	56 - 131	
					RPD = 1.7		RPDLimit = 20	
cis-1,2-Dichloroethene	56.2000	54.5000	50.0000		112	%	72 - 126	
					RPD = 3.1		RPDLimit = 20	
cis-1,3-Dichloropropene	50.0000	50.4000	50.0000		100	%	69 - 131	
					RPD = 0.8		RPDLimit = 20	
Dibromochloromethane	49.4000	50.0000	50.0000		99	%	66 - 133	
					RPD = 1.2		RPDLimit = 20	
Dibromomethane	49.2000	49.2000	50.0000		98	%	70 - 130	
					RPD = 0.0		RPDLimit = 20	
Dichlorodifluoromethane	56.5000	56.6000	50.0000		113	%	53 - 153	
					RPD = 0.2		RPDLimit = 20	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatile Organics by GC/M **Batch.....:** VOC1_090916A **RunID:** VOC1_090916A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSDF		0909042-03AMSD	1	9/16/2009 8:53:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Ethylbenzene	49.6000	49.3000	50.0000		99	%	73 - 127	
					RPD = 0.6		RPDLimit = 20	
Hexachlorobutadiene	46.8000	40.2000	50.0000		94	%	67 - 131	
					RPD = 15.2		RPDLimit = 20	
Iodomethane	50.2000	55.7000	50.0000		100	%	52 - 147	
					RPD = 10.4		RPDLimit = 20	
Isopropylbenzene	43.3000	40.8000	50.0000		87	%	70 - 130	
					RPD = 5.9		RPDLimit = 20	
m,p-Xylene	97.2000	100.0000	100.0000		97	%	70 - 130	
					RPD = 2.8		RPDLimit = 20	
Methyl tert-butyl ether	50.2000	49.2000	50.0000		100	%	61 - 140	
					RPD = 2.0		RPDLimit = 20	
Methylene chloride	56.9000	56.1000	50.0000		114	%	63 - 137	
					RPD = 1.4		RPDLimit = 20	
n-Butylbenzene	46.2000	43.4000	50.0000		92	%	69 - 137	
					RPD = 6.3		RPDLimit = 20	
n-Propylbenzene	44.4000	40.8000	50.0000		89	%	70 - 130	
					RPD = 8.5		RPDLimit = 20	
Naphthalene	41.1000	43.9000	50.0000		82	%	54 - 138	
					RPD = 6.6		RPDLimit = 20	
o-Xylene	49.8000	52.0000	50.0000		100	%	70 - 130	
					RPD = 4.3		RPDLimit = 20	
sec-Butylbenzene	45.1000	43.0000	50.0000		90	%	70 - 130	
					RPD = 4.8		RPDLimit = 20	
Styrene	49.6000	51.2000	50.0000		99	%	65 - 134	
					RPD = 3.2		RPDLimit = 20	
tert-Butylbenzene	47.2000	45.0000	50.0000		94	%	70 - 129	
					RPD = 4.8		RPDLimit = 20	
Tetrachloroethene	43.4000	43.9000	50.0000		87	%	66 - 128	
					RPD = 1.1		RPDLimit = 20	
Toluene	46.9000	48.3000	50.0000		94	%	74 - 124	
					RPD = 2.9		RPDLimit = 20	
trans-1,2-Dichloroethene	55.7000	53.7000	50.0000		111	%	63 - 137	
					RPD = 3.7		RPDLimit = 20	
trans-1,3-Dichloropropene	52.6000	51.6000	50.0000		105	%	59 - 135	
					RPD = 1.9		RPDLimit = 20	
Trichloroethene	45.7000	46.2000	50.0000		91	%	70 - 127	
					RPD = 1.1		RPDLimit = 20	
Trichlorofluoromethane	50.5000	52.1000	50.0000		101	%	57 - 129	
					RPD = 3.1		RPDLimit = 20	
Vinyl chloride	57.0000	50.9000	50.0000		114	%	50 - 134	
					RPD = 11.3		RPDLimit = 20	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatiles by SIM method W **Batch.....:** VOC1_090921A **RunID:** VOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	09BLK21A	1	9/21/2009 7:57:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1-Dichloropropene	< .4500						-	
1,2-Dibromo-3-chloropropane	< .0650						-	
cis-1,3-Dichloropropene	< .4200						-	
1,2-Dibromoethane	< .0420						-	
1,2,3-Trichloropropane	< .0550						-	

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatiles by SIM method W **Batch.....:** VOC1_090921A **RunID:** VOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	09LCS21A	1	9/21/2009 8:34:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1-Dichloropropene	2.3900		2.5000		96	%	70 - 130	
1,2-Dibromo-3-chloropropane	2.0200		2.5000		81	%	70 - 130	
cis-1,3-Dichloropropene	2.4600		2.5000		98	%	70 - 130	
1,2-Dibromoethane	2.4500		2.5000		98	%	70 - 130	
1,2,3-Trichloropropane	2.6100		2.5000		104	%	70 - 130	

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatiles by SIM method W **Batch.....:** VOC1_090921A **RunID:** VOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MS	Matrix Spike	0909042-03AMS	1	9/21/2009 11:01:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1-Dichloropropene	2.7400		2.5000		110	%	80 - 120	
1,2-Dibromo-3-chloropropane	2.1200		2.5000		85	%	80 - 120	
cis-1,3-Dichloropropene	2.5500		2.5000		102	%	80 - 120	
1,2-Dibromoethane	2.4900		2.5000		100	%	80 - 120	
1,2,3-Trichloropropane	2.5400		2.5000		102	%	80 - 120	

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

W orkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Test Method.....: SW8260B **Units.....:** ug/L **Analyst...:** VKG

Method Description..: Volatiles by SIM method W **Batch.....:** VOC1_090921A **RunID:** VOC1_090921A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MSD	Matrix Spike Duplicate	0909042-03AMSD	1	9/21/2009 11:37:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
1,1-Dichloropropene	2.7200	2.7400	2.5000		109	%	80 - 120	
					RPD = 0.7		RPDLimit = 30	
1,2-Dibromo-3-chloropropane	2.2400	2.1200	2.5000		90	%	80 - 120	
					RPD = 5.5		RPDLimit = 30	
cis-1,3-Dichloropropene	2.5600	2.5500	2.5000		102	%	80 - 120	
					RPD = 0.4		RPDLimit = 30	
1,2-Dibromoethane	2.6300	2.4900	2.5000		105	%	80 - 120	
					RPD = 5.5		RPDLimit = 30	
1,2,3-Trichloropropane	2.6500	2.5400	2.5000		106	%	80 - 120	
					RPD = 4.2		RPDLimit = 30	

Alamo Analytical Laboratories, LTD

SURROGATE RECOVERIES REPORT

WorkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Method Volatile Organics by GC/MS *Method Code* SW8260B

BatchID VOC1_090916A *Test Matrix* Water

SampType	*SampID*	*AnalDate*	*12Dd4*	*Td8*	*DBFM*	*BFB*
MBLK	09BLK16A	9/16/2009	84.40	87.60	105.00	99.00
LFB	09LCS16A	9/16/2009	75.60	86.00	107.00	96.20
SAMP	0909042-01A	9/16/2009	86.00	84.80	105.80	100.40
SAMP	0909042-02A	9/16/2009	72.20	85.00	111.60	100.20
SAMP	0909042-03A	9/16/2009	74.80	85.20	112.40	101.20
SAMP	0909042-05A	9/16/2009	72.80	86.80	107.40	98.40
SAMP	0909042-06A	9/16/2009	71.80	80.40	117.00	97.80
SAMP	0909042-07A	9/16/2009	76.80	82.60	114.40	100.00
SAMP	0909042-08A	9/16/2009	75.40	83.40	112.60	99.20
MS_F	0909042-03A	9/16/2009	82.60	84.20	115.60	92.80
MSDF	0909042-03A	9/16/2009	76.80	83.20	113.60	96.60
SAMP	0909062-01A	9/17/2009	80.00	83.80	120.60	99.00
SAMP	0909068-01A	9/17/2009	71.40	88.40	105.00	101.20

Test	***Test Description***	***Limits***
12Dd4	1,2-Dichloroethane-d4	60-133
Td8	Toluene-d8	67-128
4BFB	4-Bromofluorobenzene	70-125
DBFM	Dibromofluoromethane	70-122

For Surrogates: 0 = Dil.Out

Alamo Analytical Laboratories, LTD

SURROGATE RECOVERIES REPORT

WorkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Method Volatiles by SIM method Water *Method Code* SW8260B

BatchID VOC1_090921A *Test Matrix* Water

SampType	*SampID*	*AnalDate*	*12Dd4*	*Td8*	*DBFM*	*BFB*
MBLK	09BLK21A	9/21/2009	99.60	104.40	103.40	97.60
LCS	09LCS21A	9/21/2009	111.60	102.00	105.20	98.60
SAMP	0909042-01A	9/21/2009	119.40	100.20	109.60	98.80
SAMP	0909042-02A	9/21/2009	124.20	100.40	111.80	99.20
SAMP	0909042-03A	9/21/2009	125.00	99.20	113.20	98.80
SAMP	0909042-05A	9/22/2009	126.00	101.60	112.00	100.00
SAMP	0909042-06A	9/22/2009	137.00	99.00	116.80	101.60
SAMP	0909042-07A	9/22/2009	135.80	100.00	116.60	101.60
SAMP	0909042-08A	9/22/2009	134.00	100.20	117.20	101.60
MS	0909042-03A	9/21/2009	126.20	100.60	110.80	96.60
MSD	0909042-03A	9/21/2009	131.00	102.20	112.80	97.40

Test	***Test Description***	***Limits***
12Dd4	1,2-Dichloroethane-d4	60-133
Td8	Toluene-d8	67-128
4BFB	4-Bromofluorobenzene	70-125
DBFM	Dibromofluoromethane	70-122

For Surrogates: 0 = Dil.Out

Alamo Analytical Laboratories, LTD

SURROGATE RECOVERIES REPORT

WorkOrder: 0909042 Report Date: 9/28/2009

Company: Alamo 1 PROJECT: LHAAP19LFCA ATTN: Phyllis Primrose

Method Code Semi-volatile Organics by GC/MS *Method Code* SW8270C

BatchID SVOC1_090921A *Test Matrix* Soil

SampType	*SampID*	*AnalDate*	*246TBP*	*2FBP*	*2FP*	*NBD5*	*PD5*	*TD14*
MBLK	09BLK14A	9/18/2009	114.00	76.00	121.00	116.80	103.00	78.80
LFB	09LCS14A	9/18/2009	95.60	85.00	116.00	127.60	112.00	91.20
MS_F	0909042-07A	9/18/2009	94.00	81.00	101.00	119.00	101.00	84.40
MSDF	0909042-07A	9/18/2009	90.40	81.20	92.90	115.20	98.00	85.00
SAMP	0909042-02A	9/18/2009	96.00	64.00	69.90	93.00	61.10	68.80
SAMP	0909042-03A	9/18/2009	106.00	54.40	55.80	80.20	49.30	53.80
SAMP	0909042-05A	9/18/2009	74.90	67.00	66.00	88.60	59.60	69.80
SAMP	0909042-06A	9/18/2009	115.00	58.20	60.70	79.60	55.50	64.00
SAMP	0909042-07A	9/18/2009	115.00	58.20	60.70	79.60	55.50	64.00
SAMP	0909042-08A	9/18/2009	78.70	59.20	71.20	89.00	58.70	61.40

Test	***Test Description***	***Limits***
246TBP	2,4,6-Tribromophenol	11-143
2FBP	2-Fluorobiphenyl	49-125
2FP	2-Fluorophenol	28-110
NBD5	Nitrobenzene-d5	36-122
PD5	Phenol-d5	10-110
TD14	Terphenyl-d14	10-176

For Surrogates: 0 = Dil.Out

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 9/28/2009

Job Number.: 0909042 Project Name...: LHAAP19LFCA

Customer.....: Alamo 1 Attn.....: Phyllis Primrose

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
CN_R_TW	BLK	9/17/2009	9/11/2009

Method:	Description:	BatchID:	RunID:
SW9010B	CYANIDE, TOTAL	CN_R_TW-9/17/2009	CN_090917A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909042-02	EQB1	9/17/2009	1
0909042-03	MW2	9/17/2009	1
0909042-04	MW2F	9/17/2009	1
0909042-05	EQB2	9/17/2009	1
0909042-06	MW3	9/17/2009	1
0909042-07	MW3F	9/17/2009	1
0909042-08	MW1	9/17/2009	1

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
HG_R_W	09BLK17A	9/17/2009 9:00:00 AM	9/11/2009

Method:	Description:	BatchID:	RunID:
SW7470A	MERCURY, TOTAL	HG_R_W-09/17/2009	HG_090917A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909042-02	EQB1	9/17/2009 2:00:00 PM	1
0909042-03	MW2	9/17/2009 2:00:00 PM	1
0909042-04	MW2F	9/17/2009 2:00:00 PM	1
0909042-05	EQB2	9/17/2009 2:00:00 PM	1
0909042-06	MW3	9/17/2009 2:00:00 PM	1
0909042-07	MW3F	9/17/2009 2:00:00 PM	1
0909042-08	MW1	9/17/2009 2:00:00 PM	1

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 9/28/2009

Job Number.: 0909042 Project Name...: LHAAP19LFCA

Customer.....: Alamo 1 Attn.....: Phyllis Primrose

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
TAL_W	BLK	9/16/2009 8:00:00 AM	9/11/2009

Method:	Description:	BatchID:	RunID:
SW6010B	TARGET ANALYTE LIST	TAL_W-9/16/2009	ICP_090914A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909042-02	EQB1	9/16/2009 12:15:00 PM	1
0909042-03	MW2	9/16/2009 12:15:00 PM	1
0909042-04	MW2F	9/16/2009 12:15:00 PM	1
0909042-05	EQB2	9/16/2009 12:15:00 PM	1
0909042-06	MW3	9/16/2009 12:15:00 PM	1
0909042-07	MW3F	9/16/2009 12:15:00 PM	1
0909042-08	MW1	9/16/2009 12:15:00 PM	1

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
8270C_WS	09BLK14A	9/14/2009 12:00:00 PM	9/11/2009

Method:	Description:	BatchID:	RunID:
8270C	8270 Semivolatiles by SI	SVOC1_090917B	SVOC1_090917B

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909042-02	EQB1	9/22/2009 4:22:00 PM	1
0909042-03	MW2	9/22/2009 5:02:00 PM	1
0909042-05	EQB2	9/22/2009 6:22:00 PM	1
0909042-06	MW3	9/22/2009 7:07:00 PM	1
0909042-07	MW3F	9/22/2009 7:46:00 PM	1
0909042-08	MW1	9/22/2009 8:42:00 PM	1

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 9/28/2009

Job Number.: 0909042 Project Name...: LHAAP19LFCA

Customer.....: Alamo 1 Attn.....: Phyllis Primrose

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
8270C_W	09BLK14A	9/14/2009 12:00:00 PM	9/11/2009

Method:	Description:	BatchID:	RunID:
SW8270C	Semi-volatile Organics by	SVOC1_090921A	SVOC1_090921A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909042-02	EQB1	9/18/2009 7:37:00 PM	1
0909042-03	MW2	9/18/2009 8:16:00 PM	1
0909042-05	EQB2	9/18/2009 8:54:00 PM	1
0909042-06	MW3	9/18/2009 9:33:00 PM	1
0909042-07	MW3F	9/18/2009 10:11:00 PM	1
0909042-08	MW1	9/18/2009 5:43:00 PM	1

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
CR6_W	BLK	9/11/2009	9/11/2009

Method:	Description:	BatchID:	RunID:
SW7196A	HEXAVALENT CHROMIU	CR6_W-9/11/2009	UV1_090911A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909042-02	EQB1	9/11/2009	1
0909042-03	MW2	9/11/2009	1
0909042-04	MW2F	9/11/2009	1
0909042-05	EQB2	9/11/2009	1
0909042-06	MW3	9/11/2009	1
0909042-07	MW3F	9/11/2009	1
0909042-08	MW1	9/11/2009	1

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 9/28/2009

Job Number.: 0909042 Project Name...: LHAAP19LFCA

Customer.....: Alamo 1 Attn.....: Phyllis Primrose

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
8260B_W	09BLK16A	9/16/2009 4:31:00 PM	9/11/2009

Method:	Description:	BatchID:	RunID:
SW8260B	Volatile Organics by GC/	VOC1_090916A	VOC1_090916A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909042-01	TB	9/16/2009 5:59:00 PM	1
0909042-02	EQB1	9/16/2009 6:42:00 PM	1
0909042-03	MW2	9/16/2009 7:26:00 PM	1
0909042-05	EQB2	9/16/2009 9:37:00 PM	1
0909042-06	MW3	9/16/2009 10:21:00 PM	1
0909042-07	MW3F	9/16/2009 11:04:00 PM	1
0909042-08	MW1	9/16/2009 11:48:00 PM	1

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
8260B_SIM	09BLK21A	9/21/2009 7:57:00 PM	9/11/2009

Method:	Description:	BatchID:	RunID:
SW8260B	Volatiles by SIM method	VOC1_090921A	VOC1_090921A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909042-01	TB	9/21/2009 9:10:00 PM	1
0909042-02	EQB1	9/21/2009 9:47:00 PM	1
0909042-03	MW2	9/21/2009 10:24:00 PM	1
0909042-05	EQB2	9/22/2009 12:14:00 AM	1
0909042-06	MW3	9/22/2009 12:51:00 AM	1
0909042-07	MW3F	9/22/2009 1:28:00 AM	1
0909042-08	MW1	9/22/2009 2:04:00 AM	1

Alamo Analytical Laboratories, LTD
(DBA Chemron)

QUALITY ASSURANCE METHODS REFERENCES AND NOTES

Report Date: Sep 28, 2009

(1) EPA SW-846, Test Method for Evaluating Solid Waste, Third Edition, September 1986, and Updates I, II, IIA, IIB, and III

(2) ASTM, Section 11 Water and Environmental Technology, Volume 11.01 Water (1), 1991

(3) TCEQ Method 1005, Revision 3, June 2001

QC Sample Identification:

DF:	Dilution Factor
MBLK:	Method Blank
MS/MS_F:	Method (Matrix) Spike
MSD/MSDF:	Method (Matrix) Spike Duplicate
LCS:	Laboratory Control Standard
LCSD:	Laboratory Control Standard Duplicate
LFB:	Laboratory Fortified Blank
LFBD:	Laboratory Fortified Blank Duplicate
DUP:	Sample Duplicate
RPD:	Relative Percent Difference

General Qualifiers:
U - Analyte was analyzed but not detected
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

10526 Gulfdale San Antonio, TX 78216

Alamo Analytical Laboratories, LTD
(DBA Chemron)

10526 Gulfdale, San Antonio , Texas 78216-3601 (210) 340-8121
Alamo_labs@sbcglobal.net; www.alamoanalytical.com

Sample Log-In Checklist

DATE: 9 / 11 / 2009 **TIME:** 0805 **INITIALS:** @

CLIENT: Alamo 1 **PROJECT:** LHAAP 19 LFCA **W.O#** 909042

1. Is a Chain of Custody present? (Yes) No
2. Is a Chain of Custody properly completed? (Yes) No
3. Are custody seals present? (Yes) No
   If yes, are they intact? (Yes) No
   Are they on: Sample ✓ And ~~or on~~ @9-11-9 Shipping Container ✓
4. Are all samples tagged or labeled? (Yes) No
   If yes, do the labels match the Chain of Custody? (Yes) No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   If not, describe below. (Yes) No N/A
6. Are samples preserved properly? *If not*, describe below. (Yes) No
7. Are all samples within holding times on arrival? (Yes) No
   If not, describe below.

Other

8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: 3°C
11. Delivery agent: Client ___ UPS ___ Fed-Ex ___ Lone Star ✓ Alamo P/U ___ Other ___
12. Sample disposal: Return to client ___ Alamo Analytical Disposal ✓

Comments: (Reference checklist item number from above, or for comments on resolution below):

Use 0909042-03 (MW-2 unfiltered) for MS/MSD VOC
use 0909042-08 (MW1 unfiltered) for MS/MSD Metals + SVOC
As per phyll's Primrose @ 9-11-9
(Legend)

Record of contacting client for resolution of sample discrepancies (first and retry contact)
Contacted How?

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: ___
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: ___

ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121

1/26/2010

Phyllis Primrose
Alamo 1
10843 Gulfdale
San Antonio , TX - 78216
TEL: (210) 218-3271
FAX: (210) 820-3636 Email:

RE: LHAAP19LFCA

Dear Phyllis Primrose: Order No.: 0909042

Enclosed please find the Thallium results analyzed by 6020 Method (sub-contracted).

Thank you,

Reddy Gosala

Laboratory Director

Report of Laboratory Analysis

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client.
Reproduction of this report wholly or in part requires written permission of the client.

NELAP Certificate# T104704367-09-TX

Alamo Analytical Laboratories, LTD

ANALYTICAL REPORT

JOB NUMBER 0909042

Prepared for

Alamo 1

Attn. Phyllis Primrose

Date: January 26,2010

Signature

Date 1/26/10

Name: Reddy Gosala
Title: Lab Director
E-Mail: Alamo_labs@sbcglobal.net

10526 Gulfdale San Antonio, TX 78216

Alamo Analytical Laboratories, LTD

TRRP Data Package Signature Page

Job Number: 0909042

Project Name/Number: LHAAP19LFCA

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

[X] R1 Field Chain-of-Custody Form

[X] R2 Sample Identification Cross-reference;

[X] R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
- a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
- b) dilution factors,
- c) preparation methods,
- d) cleanup methods, and
- e) if required for the project, tentatively identified compounds (TICs).

[ ] R4 Surrogate Recovery Data including:
- a) Calculated recovery (%R), and
- b) The Laboratory's surrogate recovery limits.

[X] R5 Test Reports/Summary Forms for Blank Samples;

[X] R6 Test Reports/Summary Forms for Laboratory Control Smaples (LCSs) including:
- a) LCS Spiking amounts,
- b) Calculated %R for each analyte, and
- c) The Laboratory's LCS QC Limits

[ ] R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
- a) Samples associated with the MS/MSD clearly identified,
- b) MS/MSD spiking amounts,
- c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
- d) Calculated %Rs and relative percent differences (RPDs), and
- e) The Laboratory's MS/MSD QC Limits

[X] R8 Laboratory Analytical Duplicates (if applicable) Recovery and Precision, including:
- a) The amount of analyte measured in the duplicate,
- b) The calculated RPD, and
- c) the Laboratory's QC Limits for analytical duplicates.

[X] R9 Method Quamtation Limit (MQL) for each analyte for each method and matrix;

[X] R10 Other problems and anomalies

Release Statement: "I am responsible for the release of the data package. This laboratory data package has been reviewed and is complete and technically complaint with the requirements of the methods used, except where noted by the laboratory in the attched exception reports."

Reddy Gosala	[signature]	Laboratory Director	11/26/10
Name (Printed)	Signature	Official Title (Printed)	Date

Alamo Analytical Laboratories, LTD

SAMPLE INFORMATION

Date: 1/26/2010

Job Number.: 0909042

Project Name...: LHAAP19LFCA

Customer.....: Alamo 1

Attn.....: Phyllis Primrose

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
0909042-04A	MW2F	Water	9/8/2009	16:45	9/11/2009	8:05
0909042-07A	MW3F	Water	9/9/2009	13:00	9/11/2009	8:05
0909042-08A	MW1	Water	9/9/2009	17:54	9/11/2009	8:05

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 1/26/2010

ClientSampID: MW2F **Sample Matrix:** Water **Date Received:** 9/11/2009

Sample Date: 9/8/2009 **Alamo Lab ID:** 0909042-04A **Time Received:** 8:05

Sample Time: 16:45 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW6020B													
Thallium	7440-28-0	0.0014	U		0.0014	0.0020	0.0014	mg/L	1/25/2010 2:21:00 PM	560-44333	1	SUB	1/25/2010 8:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 1/26/2010

ClientSampID: MW3F **Sample Matrix:** Water **Date Received:** 9/11/2009

Sample Date: 9/9/2009 **Alamo Lab ID:** 0909042-07A **Time Received:** 8:05

Sample Time: 13:00 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW6020B													
Thallium	7440-28-0	0.0014	U		0.0014	0.0020	0.0014	mg/L	1/25/2010 2:21:00 PM	560-44333	1	SUB	1/25/2010 8:30:00 AM

Alamo Analytical Laboratories, LTD

TRRP Analytical Report for:	Alamo 1	**Project:**	LHAAP19LFCA	**Contact:**	Phyllis Primrose

Alamo Lab Job Order Number: 0909042 **Report Date:** Date: 1/26/2010

ClientSampID: MW1 **Sample Matrix:** Water **Date Received:** 9/11/2009

Sample Date: 9/9/2009 **Alamo Lab ID:** 0909042-08A **Time Received:** 8:05

Sample Time: 17:54 **Dry Weight Corrected:** N/A

Test Method	CAS #	Result	Q	Flag	MDL	MQL	SQL	Units	Analysis Date /Time	BatchID	DF	Analyst	Prep Date /Time
SW6020B													
Thallium	7440-28-0	0.0014	U		0.0014	0.0020	0.0014	mg/L	1/25/2010 2:21:00 PM	560-44333	1	SUB	1/25/2010 8:30:00 AM

Alamo Analytical Laboratories, LTD

QUALITY CONTROL RESULTS

WorkOrder: 0909042

Report Date: 1/26/2010

Company: Alamo 1 | PROJECT: LHAAP19LFCA | ATTN: Phyllis Primrose

Test Method.....: SW6020B **Units.....:** mg/L **Analyst...:** SUB

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_W-9/16/2009 **RunID:** ICPMS_100125A

QC Type	Description	Lab ID	Dilution Factor	Date Time
MBLK	Method Blank	BLK	1	1/25/2010 1:39:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Thallium	< .0014						-	

Test Method.....: SW6020B **Units.....:** mg/L **Analyst...:** SUB

Method Description..: TARGET ANALYTE LIST **Batch.....:** TAL_W-9/16/2009 **RunID:** ICPMS_100125A

QC Type	Description	Lab ID	Dilution Factor	Date Time
LCS	Laboratory Control Sample	LCS	1	1/25/2010 1:44:00 PM

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Thallium	0.2087		0.2000		104	%	80 - 120	

Alamo Analytical Laboratories, LTD

LABORATORY CHRONICLE

Date: 1/26/2010

Job Number.: 0909042 Project Name...: LHAAP19LFCA

Customer.....: Alamo 1 Attn.....: Phyllis Primrose

Prep Method:	Prep BatchID:	Prep Date:	Date Received:
TAL_W	BLK	1/25/2010 8:30:00 AM	9/11/2009

Method:	Description:	BatchID:	RunID:
SW6020B	TARGET ANALYTE LIST	560-44333	ICPMS_100125A

Lab ID	ClientSampID:	Date/Time Analyzed:	DF:
0909042-04	MW2F	1/25/2010 2:21:00 PM	1
0909042-07	MW3F	1/25/2010 2:21:00 PM	1
0909042-08	MW1	1/25/2010 2:21:00 PM	1

Alamo Analytical Laboratories, LTD
(DBA Chemron)

QUALITY ASSURANCE METHODS
REFERENCES AND NOTES

Report Date: Jan 26, 2010

(1) EPA SW-846, Test Method for Evaluating Solid Waste, Third Edition, September 1986, and Updates I, II, IIA, IIB, and III

(2) ASTM, Section 11 Water and Environmental Technology, Volume 11.01 Water (1), 1991

(3) TCEQ Method 1005, Revision 3, June 2001

QC Sample Identification:

DF:	Dilution Factor
MBLK:	Method Blank
MS/MS_F:	Method (Matrix) Spike
MSD/MSDF:	Method (Matrix) Spike Duplicate
LCS:	Laboratory Control Standard
LCSD:	Laboratory Control Standard Duplicate
LFB:	Laboratory Fortified Blank
LFBD:	Laboratory Fortified Blank Duplicate
DUP:	Sample Duplicate
RPD:	Relative Percent Difference

General Qualifiers:
U - Analyte was analyzed but not detected
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

10526 Gulfdale San Antonio, TX 78216

From: Phyllis Primrose [phyllis@rcgtex.com]
Sent: Friday, January 22, 2010 12:16 PM
To: Reddy Gosala
Cc: Greg Osuna
Subject: RE: LHAAP19: SQL/MQL for Thallium in groundwater

Dr. Gosala-

I understand that 0.05 mg/L is the lowest MQL any lab could obtain using Method 6010. Using Method 6020, you said an MQL equal to or lower than the regulatory limit (0.002 mg/L) could be obtained. Based on our telephone conversation, I understand the following:

1) You will hand-deliver the three groundwater samples (MW1, MW2 and MW3) collected from LHAAP19 to a NELAC-certified lab located in San Antonio that is capable of running Method 6020.

2) The NELAC-certified lab will analyze the three groundwater samples for thallium using Method 6020.

3) The NELAC-certified lab will prepare a report that meets TRRP-13 requirements.

4) The total cost for the three samples will not exceed $225.

Please let me know if your understanding is different. Otherwise, please proceed.

Phyllis
RCG
2101 Colston Drive
Tyler, TX 75703
512.694.9326
www.rcgtex.com
Geoscientific work or services discussed herein are preliminary (DRAFT) and released for interim review under the authority of Phyllis Primrose, P.G. #2586. Any other use of this information without written consent from Phyllis Primrose is prohibited.

--- On **Fri, 1/22/10, Phyllis Primrose <*phyllis@rcgtex.com*>** wrote:

> From: Phyllis Primrose <phyllis@rcgtex.com>
> Subject: RE: LHAAP19: SQL/MQL for Thallium in groundwater
> To: "Reddy Gosala" <reddy@alamoanalytical.com>
> Date: Friday, January 22, 2010, 10:51 AM

Dr. Gosala-

The issue is the MQL (0.050) is higher than the regulatory standard (0.002 mg/L). Is the method used the most sensitive method available? Could a lower MQL be obtained? As it stands now, I will have to report that we were not able to meet the project requirements.

Phyllis
RCG

2101 Colston Drive
Tyler, TX 75703
512.694.9326
www.rcgtex.com
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--- On **Fri, 1/22/10, Reddy Gosala <*reddy@alamoanalytical.com*>** wrote:

From: Reddy Gosala <reddy@alamoanalytical.com>
Subject: RE: LHAAP19: SQL/MQL for Thallium in groundwater
To: "Phyllis Primrose" <phyllis@rcgtex.com>
Date: Friday, January 22, 2010, 8:09 AM

Ms. Phyllis,

Lab report # 0909042,Thallium SQL was 0.0212 mg/L and MQL was 0.050 mg/L. All the samples in work order # 09090042 was negative for Thallium analysis.
Let me know if you need this statement in cover letter.
Thank you,

Reddy Gosala, Ph.D.
Laboratory Director
Alamo Analytical Laboratories, LTD
reddy@alamoanalytical.com
(210) 340-8121

From: Phyllis Primrose [mailto:phyllis@rcgtex.com]
Sent: Thursday, January 21, 2010 3:31 PM
To: Reddy Gosala
Subject: LHAAP19: SQL/MQL for Thallium in groundwater

Dr. Gosala-

Your lab reported thallium with an SQL of 0.012 mg/L and MQL of 2 mg/L. The regulatory standard is 0.002 mg/L. Can you confirm that thallium was not present in the groundwater samples at a concentration equal to or higher than the regulatory standard? This affects Report No. 0909042 for LHAAP19. I need a response as soon as possible since the client is expecting a submittal tomorrow.

Thanks
Phyllis
RCG
2101 Colston Drive
Tyler, TX 75703
512.694.9326
www.rcgtex.com
Geoscientific work or services discussed herein are preliminary (DRAFT) and released for interim review under the authority of Phyllis Primrose, P.G. #2586. Any other use of this information without written consent from Phyllis Primrose is prohibited.

Data Usability Summary
LHAAP-19
Lab Project No. 456621

Introduction

Regulatory Compliance & Guidance (RCG) reviewed one data package from Ana-Lab Corporation for Project No. 456621 samples 131883-131891. The data package was reviewed following guidance (Consistency Document[1] and TRRP-13[2]) prepared by the Texas Commission on Environmental Quality (TCEQ) and the equivalent sections of engineering manual (EM) 200-1-10[3] prepared by the US Army Corps of Engineers (USACE).

Intended Use of Data

The intended use of the data is to support a risk-based closure of the LHAAP-19 under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) consistent with requirements of Title 30 Texas Administrative Code (TAC) §335.8 (relating to closure and remediation).

Data Package Contents

To ensure data quality, a reporting package compliant with TRRP-13[4] was requested from the laboratory. The data package provided included the following:

- completed chain of custody form,
- analytical results;
- sample preparation chronology;
- signature page; and
- quality control data.

Chain of Custody Form

The samples were collected on September 8 and 9, 2009 for the Longhorn Army Ammunition Plant (LHAAP) Site 19 in Karnack, TX (Site). Five (5) groundwater samples, two equipment blanks, one trip blank, and one temperature blank were delivered to the laboratory on September 9, 2009. According to the chain of custody form, the groundwater samples and equipment blanks were to be analyzed for perchlorate and explosives. The trip blank was to be analyzed for volatile organic compounds (VOCs). Two of the filtered groundwater samples (MW2F and MW3F) were placed on hold pending analysis of the unfiltered (MW2 and MW3) groundwater samples.

Analytical Methods, Preservation, and Holding Times

Perchlorate was analyzed using analytical method 314.0 as described in the *Determination of Perchlorate in Drinking Water using Ion Chromatography.*[5] Explosives were analyzed using Method 8330 as described in the *Test Methods for Evaluating*

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[1] TCEQ. 1998. Interoffice Memorandum regarding Implementation of the Existing Risk Reduction Rule. July 23.
[2] TCEQ. 2002. Review and Reporting COC Concentration Data. RG366/TRRP-13. December.
[3] USACE. 2005. Guidance for Evaluating Performance-Based Chemical Data. EM 200-1-10. June 30. http://140.194.76.129/publications/eng-manuals/em200-1-10/entire.pdf
[4] TCEQ. 2002. Review and Reporting of COC Concentration Data, RG-366, TRRP-13. December.
[5] EPA. 1999. Method 314.0 Determination of Perchlorate in Drinking Water Using Ion Chromatography. Rev. 1.0. November.

Solid Waste, Third Edition, September 1986 and Updates I, II, IIA, IIB, and III (SW-846). These analytical methods were specified in the TCEQ-approved Work Plan[6] for this project.

EPA (1999) specifies that perchlorate samples (liquids) do not need to be preserved and the holding time is 28 days. The samples were stored on ice until delivered to the lab. The samples were analyzed on September 24, 2009. Preparation and analyses for perchlorate were compliant with the holding times.

USACE (2001)[7] specifies that samples (liquid) submitted for Method 8330 should be cooled to 4°C, extracted within 7 days, and analyzed within 40 days of extraction. The samples were stored on ice until delivered to the lab. The samples were extracted by September 15th and analyzed no later than September 18th. Preparation and analysis were compliant with the preservation and holding time requirements.

Quality Control

Ana-Lab Corporation has standard operating procedures (SOPs) for Method 314.0 and Method 8330. The SOPs identify the acceptable control limits for each type of quality control and the corrective action to be performed should the quality control be outside the limits. The corrective action includes "evaluating the significance of non-conformity" and, if need, qualifying the data. Copies of the SOPs are available upon request.

Blanks

Blanks are used to determine if the samples may have been contaminated as the result of transportation or laboratory practices. If an analyte is detected in a blank, then a detected result in an associated sample may not be representative of actual site conditions.

Perchlorate and explosives were not detected in the laboratory blanks. VOCs were not detected in the trip blank.

Laboratory Control Samples

According to the Environmental Protection Agency (EPA)[8], "The primary purpose of the laboratory control sample (LCS) is to demonstrate that the laboratory can perform the overall analytical approach in a matrix free of interferences (e.g, in reagent water, clean sand, or another suitable reference matrix)." The percent recovery indicates the accuracy of the lab and whether the data is biased (high or low). The relative percent difference (RPD) indicates the laboratory's ability to reproduce the data (precision).

The lowest and highest percent recoveries are listed in Table 1. The project control limits for perchlorate were taken from Table G-3 of the Department of Defense (DOD)

[6] USACE. 2009. Landfill Closure Assessment Work Plan for the Construction & Demolition Debris Landfill (LHAAP-19), Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas. August 5.

[7] USACE. 2001. Engineering and Design – Requirements for the Preparation of Sampling and Analysis Plans. Publication. EM 200-1-3. February 1.

[8] EPA. 2009. Batch Sizes and QC Questions. Downloaded from web page on December 4. http://www.epa.gov/osw/hazard/testmethods/faq/faqs_qc.htm#Spike

Handbook for Perchlorate (DoD, 2007)[9]. Project control limits for explosives were based on USACE, 2005. Since the laboratory control limits vary for each individual parameter, the widest range is listed for each test method.

Table 1 LCS Percent Recoveries Compared to Project and Laboratory Control Limits			
Method Description	Percent Recovery	Project Control Limits (% Recovery)	Laboratory Control Limits (% Recovery)
Perchlorate	98	80-120	90-110
Explosives	82.4-104	80-120	70-130

Project and laboratory control limits were met.

Matrix spike and matrix spike duplicate (MS/MSD)
The MS/MSD results measure a method's performance relative to the specific sample matrix of interest (EPA, 2009). If the percent recoveries and relative percent differences (RPDs) for the MS/MSD are similar to those of the LCS/LCSDs, then matrix interference is unlikely.

Non-project samples were used as the MS/MSD. Therefore, the MS/MSD data was not used to qualify the analytical results.

Surrogate recoveries
Surrogates are similar in chemical composition to the organic analytes of interest. Environmental and batch QC samples are spiked with known concentrations of the surrogates prior to sample preparation and analysis. Surrogate recoveries for environmental samples are used to evaluate matrix interference on a sample-specific basis (USACE, 2001).

Project limits (USACE, 2005) used for surrogate recoveries were 80–120% for VOCs and 60–140% for SVOCs.

Project samples and control samples were spiked with concentrations of 3,4-DNT ranging from 13 ug/L to 500 ug/L. The percent recoveries ranged from 89.2 to 103%. The percent recoveries are within the project and laboratory control limits.

Analytical Results
Non-detected results were reported as less than the reporting limit (RL). The associated narrative states that the RL is equivalent to the sample quantitation limit (SQL) and the RL is "at or above the method detection limit (MDL)".

Explosives and perchlorate were not detected in any of the associated samples. The RLs (or SQLs) were less than the lowest, applicable regulatory limit for each individual analyte.

[9] DOD, 2007. Perchlorate Handbook. August. http://www.navylabs.navy.mil/Archive/DODPerchlorateHandbookR1C1.pdf

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Analytical Results

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Report Table of Contents

Account
ALA4

Project
456621

LHAAP 19 LFCA Karnack, TX

This report consists of this Table of Contents and the following pages:

Report Name	Description	Pages
456621_r03_03_ProjectResults	Ana-Lab Project P:456621 C:ALA4 Project Results	9
456621_r10_05_PROJQCG	Ana-Lab Project P:456621 C:ALA4 Project Quality Control Groups	13
456621_r99_09_CoC_ALA4_1_of_1	Ana-Lab CoC ALA4 456621_1_of_1	1
	Total Pages:	23

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

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Results

Printed: 10/01/2009

Account **ALA4-C**

Project **456621**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP 19 LFCA Karnack, TX

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
131883	**EQB1**					*Received:*	09/09/2009
	Liquid Aqueous	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/08/2009	08:45
	EPA 314.0			*Analyzed:*	*GDG*	*09/24/2009*	*1057* *QCgroup* *335936*
z	**Perchlorate**	**<4.00**	**ug/L**	4.00			01
	SW-846 8330			*Analyzed:*	*KLB*	*09/18/2009*	*1539* *QCgroup* *335250*
AN	**1,3,5 Trinitrobenzene**	**<2.86**	**ug/L**	2.86		99-35-4	05
AN	**2,6 Dinitrotoluene**	**<2.86**	**ug/L**	2.86		606-20-2	05
AN	**1,3-Dinitrobenzene (DNB)**	**<2.86**	**ug/L**	2.86		99-65-0	05
AN	**2,4-Dinitrotoluene**	**<2.86**	**ug/L**	2.86		121-14-2	05
AN	**2-Amino-4,6-dinitrotoluene**	**<2.86**	**ug/L**	2.86		35572-78-2	05
AN	**4-Amino-2,6-dinitrotoluene**	**<2.86**	**ug/L**	2.86		1946-51-0	05
AN	**HMX**	**<2.86**	**ug/L**	2.86		2691-41-0	05
AN	**Nitrobenzene**	**<2.86**	**ug/L**	2.86		98-95-3	05
AN	**2-Nitrotoluene**	**<2.86**	**ug/L**	2.86		88-72-2	05
AN	**3-Nitrotoluene**	**<2.86**	**ug/L**	2.86		99-08-1	05
AN	**4-Nitrotoluene**	**<2.86**	**ug/L**	2.86		99-99-0	05
AN	**RDX**	**<2.86**	**ug/L**	2.86		121-82-4	05
AN	**Tetryl**	**<2.86**	**ug/L**	2.86		479-45-8	05
AN	**2,4,6-Trinitrotoluene**	**<2.86**	**ug/L**	2.86		118-96-7	05
131884	**Trip Blank**					*Received:*	09/09/2009
	Liquid Aqueous	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/08/2009	:
	SW-846 8260B			*Analyzed:*	*JLH*	*09/10/2009*	*1107* *QCgroup* *333965*
AN	**Acetone**	**<2.00**	**ug/L**	2.00		67-64-1	01
AN	**Acrolein**	**<2.50**	**ug/L**	2.50		107-02-8	01
AN	**Acrylonitrile**	**<1.00**	**ug/L**	1.00		107-13-1	01
AN	**Benzene**	**<1.00**	**ug/L**	1.00		71-43-2	01
AN	**Bromobenzene**	**<1.00**	**ug/L**	1.00		108-86-1	01
AN	**Bromochloromethane**	**<1.00**	**ug/L**	1.00		74-97-5	01
AN	**Bromodichloromethane**	**<1.00**	**ug/L**	1.00		75-27-4	01
AN	**Bromoform**	**<2.00**	**ug/L**	2.00		75-25-2	01
AN	**Bromomethane (Methyl Bromi**	**<1.00**	**ug/L**	1.00		74-83-9	01
AN	**tert-Butylbenzene**	**<1.00**	**ug/L**	1.00		98-06-6	01
AN	**sec-Butylbenzene**	**<1.00**	**ug/L**	1.00		135-98-8	01
AN	**n-Butylbenzene**	**<1.00**	**ug/L**	1.00		104-51-8	01
AN	**tert-Butylmethylether (MTBE)**	**<1.00**	**ug/L**	1.00		1634-04-4	01
AN	**Carbon Tetrachloride**	**<1.00**	**ug/L**	1.00		56-23-5	01

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Results

Printed: 10/01/2009

Account **ALA4-C**

Project **456621**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP 19 LFCA Karnack, TX

Results

131884 **Trip Blank** *Received:* 09/09/2009

Liquid Aqueous *Collected by:* P Primrose *Affiliation:* RCG Texas 09/08/2009 :

SW-846 8260B *Analyzed:* *JLH* *09/10/2009* *1107* *QCgroup* *333965*

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
AN	Chlorobenzene	<1.00	ug/L	1.00		108-90-7	01
AN	Chloroethane	<1.00	ug/L	1.00		75-00-3	01
AN	2-Chloroethylvinyl ether	<1.00	ug/L	1.00		110-75-8	01
AN	Chloroform	<1.00	ug/L	1.00		67-66-3	01
AN	Chloromethane	<1.00	ug/L	1.00		74-87-3	01
AN	1,2-Dibromo-3-chloropropane	<2.00	ug/L	2.00		96-12-8	01
AN	2-Chlorotoluene	<1.00	ug/L	1.00		95-49-8	01
AN	4-Chlorotoluene	<1.00	ug/L	1.00		106-43-4	01
AN	Dibromochloromethane	<1.00	ug/L	1.00		124-48- 1	01
AN	1,2-Dibromoethane	<1.00	ug/L	1.00		106-93-4	01
AN	Dibromomethane	<1.00	ug/L	1.00		74-95-3	01
AN	1,3-Dichlorobenzene	<1.00	ug/L	1.00		541-73-1	01
AN	1,2-Dichlorobenzene	<1.00	ug/L	1.00		95-50-1	01
AN	1,4-Dichlorobenzene	<1.00	ug/L	1.00		106-46-7	01
AN	Dichlorodifluoromethane	<1.00	ug/L	1.00		75-71-8	01
AN	1,1-Dichloroethane	<1.00	ug/L	1.00		75-34-3	01
AN	1,2-Dichloroethane	<1.00	ug/L	1.00		107-06-2	01
AN	trans-1,2-Dichloroethene	<1.00	ug/L	1.00		156-60-5	01
AN	cis-1,2-Dichloroethene	<1.00	ug/L	1.00		156-59-2	01
AN	1,1-Dichloroethylene	<1.00	ug/L	1.00		75-35-4	01
AN	1,2-Dichloropropane	<1.00	ug/L	1.00		78-87-5	01
AN	2,2-Dichloropropane	<1.00	ug/L	1.00		594-20-7	01
AN	1,3-Dichloropropane	<1.00	ug/L	1.00		142-28-9	01
AN	cis-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-01-5	01
AN	trans-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-02-6	01
AN	1,1-Dichloropropene	<1.00	ug/L	1.00		563-58-6	01
AN	Ethylbenzene	<1.00	ug/L	1.00		100-41-4	01
AN	Hexachlorobutadiene	<2.00	ug/L	2.00		87-68-3	01
AN	Isopropylbenzene (Cumene)	<1.00	ug/L	1.00		98-82-8	01
AN	p-Isopropyltoluene	<1.00	ug/L	1.00		99-87-6	01
AN	Methyl ethyl ketone (Butanone)	<5.00	ug/L	5.00		78-93-3	01
AN	Methyl Isobutyl Ketone	<1.00	ug/L	1.00		108-10-1	01
AN	Methylene chloride	<1.00	ug/L	1.00		75-09-2	01
AN	Naphthalene	<1.00	ug/L	1.00		91-20-3	01
AN	n-Propylbenzene	<1.00	ug/L	1.00		103-65-1	01
AN	Styrene	<1.00	ug/L	1.00		100-42-5	01

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Results

Printed: 10/01/2009

Account **ALA4-C**

Project **456621**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP 19 LFCA Karnack, TX

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
131884	**Trip Blank**					*Received:*	09/09/2009
	Liquid Aqueous	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/08/2009	:
	SW-846 8260B			*Analyzed:*	*JLH*	*09/10/2009*	*1107* *QCgroup* *333965*
AN	1,1,2,2-Tetrachloroethane	<1.00	ug/L	1.00		79-34-5	01
AN	1,1,1,2-Tetrachloroethane	<1.00	ug/L	1.00		630-20-6	01
AN	Tetrachloroethylene	<1.00	ug/L	1.00		127-18-4	01
AN	Toluene	<1.00	ug/L	1.00		108-88-3	01
AN	1,2,4-Trichlorobenzene	<2.00	ug/L	2.00		120-82-1	01
AN	1,2,3-Trichlorobenzene	<3.00	ug/L	3.00		87-61-6	01
AN	1,1,1-Trichloroethane	<1.00	ug/L	1.00		71-55-6	01
AN	1,1,2-Trichloroethane	<1.00	ug/L	1.00		79-00-5	01
AN	Trichloroethylene	<1.00	ug/L	1.00		79-01-6	01
AN	Trichlorofluoromethane	<1.00	ug/L	1.00		75-69-4	01
AN	1,2,3-Trichloropropane	<2.00	ug/L	2.00		96-18-4	01
AN	1,2,4-Trimethylbenzene	<1.00	ug/L	1.00		95-63-6	01
AN	1,3,5-Trimethylbenzene	<1.00	ug/L	1.00		108-67-8	01
AN	Vinyl chloride	<1.00	ug/L	1.00		75-01-4	01
AN	m- and p-Xylene	<1.00	ug/L	1.00		108-38-3	01
AN	o-Xylene	<1.00	ug/L	1.00		95-47-6	01
131885	**MW2**	Unfiltered				*Received:*	09/09/2009
	Liquid Aqueous	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/08/2009	16:40
	EPA 314.0			*Analyzed:*	*GDG*	*09/24/2009*	*1130* *QCgroup* *335936*
z	Perchlorate	<40.0	ug/L	40.0			01
	SW-846 8330			*Analyzed:*	*KLB*	*09/18/2009*	*1614* *QCgroup* *335250*
AN	1,3,5 Trinitrobenzene	<2.34	ug/L	2.34		99-35-4	03
AN	2,6 Dinitrotoluene	<2.34	ug/L	2.34		606-20-2	03
AN	1,3-Dinitrobenzene (DNB)	<2.34	ug/L	2.34		99-65-0	03
AN	2,4-Dinitrotoluene	<2.34	ug/L	2.34		121-14-2	03
AN	2-Amino-4,6-dinitrotoluene	<2.34	ug/L	2.34		35572-78-2	03
AN	4-Amino-2,6-dinitrotoluene	<2.34	ug/L	2.34		1946-51-0	03
AN	HMX	<2.34	ug/L	2.34		2691-41-0	03
AN	Nitrobenzene	<2.34	ug/L	2.34		98-95-3	03
AN	2-Nitrotoluene	<2.34	ug/L	2.34		88-72-2	03
AN	3-Nitrotoluene	<2.34	ug/L	2.34		99-08-1	03
AN	4-Nitrotoluene	<2.34	ug/L	2.34		99-99-0	03
AN	RDX	<2.34	ug/L	2.34		121-82-4	03

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Results

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Account **ALA4-C**

Project **456621**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP 19 LFCA Karnack, TX

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
131885	**MW2**	Unfiltered				*Received:*	09/09/2009
	Liquid Aqueous	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/08/2009	16:40
	SW-846 8330			*Analyzed:*	*KLB*	*09/18/2009*	*1614* *QCgroup* *335250*
AN	**Tetryl**	**<2.34**	**ug/L**	2.34		479-45-8	03
AN	**2,4,6-Trinitrotoluene**	**<2.34**	**ug/L**	2.34		118-96-7	03
131887	**EQB2**					*Received:*	09/09/2009
	Liquid Aqueous	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/09/2009	10:45
	EPA 314.0			*Analyzed:*	*GDG*	*09/24/2009*	*1310* *QCgroup* *335936*
z	**Perchlorate**	**<4.00**	**ug/L**	4.00			01
	SW-846 8330			*Analyzed:*	*KLB*	*09/18/2009*	*1724* *QCgroup* *335250*
AN	**1,3,5 Trinitrobenzene**	**<2.60**	**ug/L**	2.60		99-35-4	03
AN	**2,6 Dinitrotoluene**	**<2.60**	**ug/L**	2.60		606-20-2	03
AN	**1,3-Dinitrobenzene (DNB)**	**<2.60**	**ug/L**	2.60		99-65-0	03
AN	**2,4-Dinitrotoluene**	**<2.60**	**ug/L**	2.60		121-14-2	03
AN	**2-Amino-4,6-dinitrotoluene**	**<2.60**	**ug/L**	2.60		35572-78-2	03
AN	**4-Amino-2,6-dinitrotoluene**	**<2.60**	**ug/L**	2.60		1946-51-0	03
AN	**HMX**	**<2.60**	**ug/L**	2.60		2691-41-0	03
AN	**Nitrobenzene**	**<2.60**	**ug/L**	2.60		98-95-3	03
AN	**2-Nitrotoluene**	**<2.60**	**ug/L**	2.60		88-72-2	03
AN	**3-Nitrotoluene**	**<2.60**	**ug/L**	2.60		99-08-1	03
AN	**4-Nitrotoluene**	**<2.60**	**ug/L**	2.60		99-99-0	03
AN	**RDX**	**<2.60**	**ug/L**	2.60		121-82-4	03
AN	**Tetryl**	**<2.60**	**ug/L**	2.60		479-45-8	03
AN	**2,4,6-Trinitrotoluene**	**<2.60**	**ug/L**	2.60		118-96-7	03
131888	**MW3**					*Received:*	09/09/2009
	Liquid Aqueous	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/09/2009	12:45
	EPA 314.0			*Analyzed:*	*GDG*	*09/24/2009*	*1449* *QCgroup* *335936*
z	**Perchlorate**	**<40.0**	**ug/L**	40.0			01
	SW-846 8330			*Analyzed:*	*KLB*	*09/18/2009*	*1759* *QCgroup* *335250*
AN	**1,3,5 Trinitrobenzene**	**<2.86**	**ug/L**	2.86		99-35-4	03
AN	**2,6 Dinitrotoluene**	**<2.86**	**ug/L**	2.86		606-20-2	03
AN	**1,3-Dinitrobenzene (DNB)**	**<2.86**	**ug/L**	2.86		99-65-0	03

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Account **ALA4-C**

Project **456621**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP 19 LFCA Karnack, TX

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
131888	**MW3**					*Received:*	09/09/2009
	Liquid Aqueous	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/09/2009	12:45
	SW-846 8330			*Analyzed:*	*KLB*	*09/18/2009*	*1759* *QCgroup* *335250*
AN	**2,4-Dinitrotoluene**	<2.86	ug/L	2.86		121-14-2	03
AN	**2-Amino-4,6-dinitrotoluene**	<2.86	ug/L	2.86		35572-78-2	03
AN	**4-Amino-2,6-dinitrotoluene**	<2.86	ug/L	2.86		1946-51-0	03
AN	**HMX**	<2.86	ug/L	2.86		2691-41-0	03
AN	**Nitrobenzene**	<2.86	ug/L	2.86		98-95-3	03
AN	**2-Nitrotoluene**	<2.86	ug/L	2.86		88-72-2	03
AN	**3-Nitrotoluene**	<2.86	ug/L	2.86		99-08-1	03
AN	**4-Nitrotoluene**	<2.86	ug/L	2.86		99-99-0	03
AN	**RDX**	<2.86	ug/L	2.86		121-82-4	03
AN	**Tetryl**	<2.86	ug/L	2.86		479-45-8	03
AN	**2,4,6-Trinitrotoluene**	<2.86	ug/L	2.86		118-96-7	03
131890	**MW1**	Unfiltered				*Received:*	09/09/2009
	Liquid Aqueous	*Collected by:*	P Primrose	*Affiliation:*	RCG Texas	09/09/2009	18:15
	EPA 314.0			*Analyzed:*	*GDG*	*09/24/2009*	*1702* *QCgroup* *335936*
z	**Perchlorate**	<40.0	ug/L	40.0			01
	SW-846 8330			*Analyzed:*	*KLB*	*09/18/2009*	*1910* *QCgroup* *335250*
AN	**1,3,5 Trinitrobenzene**	<2.60	ug/L	2.60		99-35-4	05
AN	**2,6 Dinitrotoluene**	<2.60	ug/L	2.60		606-20-2	05
AN	**1,3-Dinitrobenzene (DNB)**	<2.60	ug/L	2.60		99-65-0	05
AN	**2,4-Dinitrotoluene**	<2.60	ug/L	2.60		121-14-2	05
AN	**2-Amino-4,6-dinitrotoluene**	<2.60	ug/L	2.60		35572-78-2	05
AN	**4-Amino-2,6-dinitrotoluene**	<2.60	ug/L	2.60		1946-51-0	05
AN	**HMX**	<2.60	ug/L	2.60		2691-41-0	05
AN	**Nitrobenzene**	<2.60	ug/L	2.60		98-95-3	05
AN	**2-Nitrotoluene**	<2.60	ug/L	2.60		88-72-2	05
AN	**3-Nitrotoluene**	<2.60	ug/L	2.60		99-08-1	05
AN	**4-Nitrotoluene**	<2.60	ug/L	2.60		99-99-0	05
AN	**RDX**	<2.60	ug/L	2.60		121-82-4	05
AN	**Tetryl**	<2.60	ug/L	2.60		479-45-8	05
AN	**2,4,6-Trinitrotoluene**	<2.60	ug/L	2.60		118-96-7	05

Sample Preparation

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Report To

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Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

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Sample Preparation

131883 **EQB1** *Received:* 09/09/2009

				Analyzed:	*AAJ*	*09/10/2009*			
z	**Bottle pH**	**7**	**SU**						01
z	**Bottle pH**	**7**	**SU**						02
z	**Bottle pH**	**7**	**SU**						03
z	**Bottle pH**	**7**	**SU**						04
	Bottle Temperature on Receipt	**3**	**degrees**						01
	Bottle Temperature on Receipt	**3**	**degrees**						02
	Bottle Temperature on Receipt	**3**	**degrees**						03
	Bottle Temperature on Receipt	**3**	**degrees**						04
	SW8330			*Analyzed:*	*TRP*	*09/14/2009*	*0830*	*QCgroup*	*334559*
AN	**Explosives Extraction**	**22/770**	**ml**						04
	SW-846 8330			*Analyzed:*	*KLB*	*09/18/2009*	*1539*		
AN	**Explosives Expansion Code**	**Confirm**							05

131884 **Trip Blank** *Received:* 09/09/2009

				Analyzed:	*AAJ*	*09/10/2009*			
	Bottle Temperature on Receipt	**5**	**degrees**						01
	SW-846 8260B			*Analyzed:*	*JLH*	*09/10/2009*	*1107*		
AN	**VOA by GC/MS**	**Entered**							01

131885 **MW2** Unfiltered *Received:* 09/09/2009

				Analyzed:	*AAJ*	*09/10/2009*			
z	**Bottle pH**	**7**	**SU**						01
z	**Bottle pH**	**7**	**SU**						02
	Bottle Temperature on Receipt	**3**	**degrees**						01
	Bottle Temperature on Receipt	**3**	**degrees**						02
	SW8330			*Analyzed:*	*TRP*	*09/14/2009*	*0830*	*QCgroup*	*334559*
AN	**Explosives Extraction**	**18/770**	**ml**						02

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Sample Preparation

131885 **MW2** Unfiltered *Received:* 09/09/2009

	SW-846 8330			*Analyzed:*	*KLB*	*09/18/2009*	*1614*	
AN	**Explosives Expansion Code**	**Confirm**						03

131887 **EQB2** *Received:* 09/09/2009

				Analyzed:	*AAJ*	*09/10/2009*		
z	**Bottle pH**	**7**	**SU**					01
z	**Bottle pH**	**7**	**SU**					02
	Bottle Temperature on Receipt	**3**	**degrees**					01
	Bottle Temperature on Receipt	**3**	**degrees**					02
	SW8330			*Analyzed:*	*TRP*	*09/14/2009*	*0830*	*QCgroup* *334559*
AN	**Explosives Extraction**	**20/770**	**ml**					02
	SW-846 8330			*Analyzed:*	*KLB*	*09/18/2009*	*1724*	
AN	**Explosives Expansion Code**	**Confirm**						03

131888 **MW3** *Received:* 09/09/2009

				Analyzed:	*AAJ*	*09/10/2009*		
z	**Bottle pH**	**7**	**SU**					01
z	**Bottle pH**	**7**	**SU**					02
	Bottle Temperature on Receipt	**3**	**degrees**					01
	Bottle Temperature on Receipt	**3**	**degrees**					02
	SW8330			*Analyzed:*	*TRP*	*09/14/2009*	*0830*	*QCgroup* *334559*
AN	**Explosives Extraction**	**22/770**	**ml**					02
	SW-846 8330			*Analyzed:*	*KLB*	*09/18/2009*	*1759*	
AN	**Explosives Expansion Code**	**Confirm**						03

131890 **MW1** Unfiltered *Received:* 09/09/2009

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Project **456621**

Report To

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Sample Preparation

131890 **MW1** Unfiltered *Received:* 09/09/2009

				Analyzed:	*AAJ*	*09/10/2009*			
z	**Bottle pH**	**7**	**SU**						01
z	**Bottle pH**	**7**	**SU**						02
z	**Bottle pH**	**7**	**SU**						03
z	**Bottle pH**	**7**	**SU**						04
	Bottle Temperature on Receipt	**3**	**degrees**						01
	Bottle Temperature on Receipt	**3**	**degrees**						02
	Bottle Temperature on Receipt	**3**	**degrees**						03
	Bottle Temperature on Receipt	**3**	**degrees**						04
	SW8330			*Analyzed:*	*TRP*	*09/14/2009*	*0830*	*QCgroup*	*334559*
AN	**Explosives Extraction**	**20/770**	**ml**						04
	SW-846 8330			*Analyzed:*	*KLB*	*09/18/2009*	*1910*		
AN	**Explosives Expansion Code**	**Confirm**							05

131891 **Temp Blank** *Received:* 09/09/2009

				Analyzed:	*AAJ*	*09/10/2009*			
	Bottle Temperature on Receipt	**3**	**degrees**						01

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Results

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10/01/2009

Account	*Project*
ALA4-C	**456621**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP 19 LFCA Karnack, TX

Qualifiers:

We report results on an 'As Received' or wet basis unless marked 'Dry Weight'. Unless otherwise noted, testing was performed at Ana-lab's corporate laboratory that holds the following Federal and State certificates: Texas Department of Health Lead Firm Certificate 2110076, EPA National Lead Laboratory Accreditation Program #637.01, US Department of Agriculture Soil Import Permit S-37592, Texas Commisson on Environmental Quality Drinking Water Laboratory Certificate TX219, Texas Commission on Environmental Quality NELAP T104704201-06-TX, Oklahoma Department of Environmental Quality Drinking Water Certification Lab ID# D9913, EPA Lab Number TX00063, USEPA Approved Perchlorate Testing Lab, Oklahoma Department of Environmental Quality Laboratory Certificate 8125, Arkansas Department of Environmental Quality Certification #03-070-0, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) # LA030020, US Department of Energy Approved, State of Kansas Department of Health and Environment Waste Water and Solid/Hazardous Waste Cert. E-10365, Alabama Department of Environmental Management Drinking Water #41540. Ana-Lab is also accredited to the international ISO-17025 standard by the American Association for Laboratory Accreditation (A2LA Certificate # 0637-01). The Accredited column designates accreditation by U - UCMR2 (EPA), A -- A2LA, N -- NELAC, or z -- not covered under A2LA or NELAC scope of accreditation.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of Ana-Lab Corp. Unless otherwise specified, these test results meet the requirements of NELAC.
RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number.

C. H. Whiteside, Ph.D., President

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Quality Control

Report To

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San Antonio, TX 78205-

Project 456621

335936 I Liquid Aqueous EPA 314.0

AWRL

Parameter	Reading	Known	Units	Recover%	Limits%	Out	File
Perchlorate	3.74	4.00	ug/L	93.5	75.0 - 125		0011263472
Perchlorate	3.77	4.00	ug/L	94.2	75.0 - 125		0011263473

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	Out	File
Perchlorate	335936	ND	1.06	4.00	ug/L		0011263475

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	Out	File
Perchlorate	105	100	ug/L	105	75.0 - 125		0011263469
Perchlorate	107	100	ug/L	107	75.0 - 125		0011263470
Perchlorate	110	100	ug/L	110	75.0 - 125		0011263488
Perchlorate	25.4	25.0	ug/L	102	75.0 - 125		0011263489
Perchlorate	25.6	25.0	ug/L	102	75.0 - 125		0011263471

MS

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Perchlorate	131887	24.5	24.0	ND	25.0	80.0 - 120	98.0	96.0	ug/L	2.06	20.0
Perchlorate	135847	334		ND	500	80.0 - 120	66.8 *		ug/L		20.0

333965 O Liquid Aqueous SW-846 8260B

BFB

Parameter	Sample	RefMass	Reading	%	Limits%	Out	File
BFB Mass 173	BFB1.D	174	0	0.0	0 - 2.00		0011227910
BFB Mass 174	BFB1.D	95	1394	70.1	50.0 - 100		0011227910
BFB Mass 175	BFB1.D	174	107	7.7	5.00 - 9.00		0011227910
BFB Mass 176	BFB1.D	174	1347	96.6	95.0 - 101		0011227910
BFB Mass 177	BFB1.D	176	74	5.5	5.00 - 9.00		0011227910
BFB Mass 50	BFB1.D	95	329	16.5	15.0 - 40.0		0011227910
BFB Mass 75	BFB1.D	95	970	48.8	30.0 - 60.0		0011227910
BFB Mass 95	BFB1.D	95	1989	100.0	100 - 100		0011227910
BFB Mass 96	BFB1.D	95	159	8.0	5.00 - 9.00		0011227910

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	Out	File
1,1,1,2-Tetrachloroethane	333965	ND	0.220	1.00	ug/L		0011227924
1,1,1-Trichloroethane	333965	ND	0.228	1.00	ug/L		0011227924
1,1,2,2-Tetrachloroethane	333965	ND	0.296	1.00	ug/L		0011227924
1,1,2-Trichloroethane	333965	ND	0.141	1.00	ug/L		0011227924

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Quality Control

Report To

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Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Project 456621

333965 **O** **Liquid Aqueous** **SW-846 8260B**

Blank

Parameter	*PrepSet*	*Reading*	*MDL*	*MQL*	*Units*	*Out*	*File*
1,1-Dichloroethane	333965	ND	0.171	1.00	ug/L		0011227924
1,1-Dichloroethylene	333965	ND	0.223	1.00	ug/L		0011227924
1,1-Dichloropropene	333965	ND	0.195	1.00	ug/L		0011227924
1,2,3-Trichlorobenzene	333965	ND	2.45	3.00	ug/L		0011227924
1,2,3-Trichloropropane	333965	ND	1.53	2.00	ug/L		0011227924
1,2,4-Trichlorobenzene	333965	ND	1.16	2.00	ug/L		0011227924
1,2,4-Trimethylbenzene	333965	ND	0.195	1.00	ug/L		0011227924
1,2-Dibromo-3-chloropropane	333965	ND	2.35	2.00	ug/L		0011227924
1,2-Dibromoethane	333965	ND	0.296	1.00	ug/L		0011227924
1,2-Dichlorobenzene	333965	ND	0.140	1.00	ug/L		0011227924
1,2-Dichloroethane	333965	ND	0.164	1.00	ug/L		0011227924
1,2-Dichloropropane	333965	ND	0.262	1.00	ug/L		0011227924
1,3,5-Trimethylbenzene	333965	ND	0.142	1.00	ug/L		0011227924
1,3-Dichlorobenzene	333965	ND	0.103	1.00	ug/L		0011227924
1,3-Dichloropropane	333965	ND	0.182	1.00	ug/L		0011227924
1,4-Dichlorobenzene	333965	ND	0.175	1.00	ug/L		0011227924
2,2-Dichloropropane	333965	ND	0.729	1.00	ug/L		0011227924
2-Chloroethylvinyl ether	333965	ND	0.324	1.00	ug/L		0011227924
2-Chlorotoluene	333965	ND	0.198	1.00	ug/L		0011227924
4-Chlorotoluene	333965	ND	0.244	1.00	ug/L		0011227924
Acetone	333965	ND	1.43	2.00	ug/L		0011227924
Acrolein	333965	ND	2.35	2.50	ug/L		0011227924
Acrylonitrile	333965	ND	0.490	1.00	ug/L		0011227924
Benzene	333965	ND	0.156	1.00	ug/L		0011227924
Bromobenzene	333965	ND	0.186	1.00	ug/L		0011227924
Bromochloromethane	333965	ND	0.234	1.00	ug/L		0011227924
Bromodichloromethane	333965	ND	0.0870	1.00	ug/L		0011227924
Bromoform	333965	ND	1.25	2.00	ug/L		0011227924
Bromomethane (Methyl Bromi	333965	ND	0.267	1.00	ug/L		0011227924
Carbon Tetrachloride	333965	ND	0.366	1.00	ug/L		0011227924
Chlorobenzene	333965	ND	0.114	1.00	ug/L		0011227924
Chloroethane	333965	ND	0.178	1.00	ug/L		0011227924
Chloroform	333965	ND	0.170	1.00	ug/L		0011227924
Chloromethane	333965	ND	0.218	1.00	ug/L		0011227924
cis-1,2-Dichloroethene	333965	ND	0.196	1.00	ug/L		0011227924
cis-1,3-Dichloropropene	333965	ND	0.191	1.00	ug/L		0011227924

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Quality Control

Report To

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Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Project 456621

333965 **O** **Liquid Aqueous** **SW-846 8260B**

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	Out	File
Dibromochloromethane	333965	ND	0.219	1.00	ug/L		0011227924
Dibromomethane	333965	ND	0.103	1.00	ug/L		0011227924
Dichlorodifluoromethane	333965	ND	0.266	1.00	ug/L		0011227924
Ethylbenzene	333965	ND	0.107	1.00	ug/L		0011227924
Hexachlorobutadiene	333965	ND	1.29	2.00	ug/L		0011227924
Isopropylbenzene (Cumene)	333965	ND	0.165	1.00	ug/L		0011227924
m- and p-Xylene	333965	ND	0.221	1.00	ug/L		0011227924
Methyl ethyl ketone (Butanone)	333965	ND	1.36	5.00	ug/L		0011227924
Methyl Isobutyl Ketone	333965	ND	0.531	1.00	ug/L		0011227924
Methylene chloride	333965	ND	0.262	1.00	ug/L		0011227924
Naphthalene	333965	ND	0.255	1.00	ug/L		0011227924
n-Butylbenzene	333965	ND	0.300	1.00	ug/L		0011227924
n-Propylbenzene	333965	ND	0.146	1.00	ug/L		0011227924
o-Xylene	333965	ND	0.122	1.00	ug/L		0011227924
p-Isopropyltoluene	333965	ND	0.115	1.00	ug/L		0011227924
sec-Butylbenzene	333965	ND	0.0817	1.00	ug/L		0011227924
Styrene	333965	ND	0.129	1.00	ug/L		0011227924
tert-Butylbenzene	333965	ND	0.209	1.00	ug/L		0011227924
Tetrachloroethylene	333965	ND	0.316	1.00	ug/L		0011227924
Toluene	333965	ND	0.107	1.00	ug/L		0011227924
trans-1,2-Dichloroethene	333965	ND	0.252	1.00	ug/L		0011227924
trans-1,3-Dichloropropene	333965	ND	0.103	1.00	ug/L		0011227924
Trichloroethylene	333965	ND	0.220	1.00	ug/L		0011227924
Trichlorofluoromethane	333965	ND	0.205	1.00	ug/L		0011227924
Vinyl chloride	333965	ND	0.179	1.00	ug/L		0011227924

CCC

Parameter	Reading	Known	Units	Recover%	Limits%	Out	File
1,1-Dichloroethylene	20.65	20.0	ug/L	103	70.0 - 130		0011227911
1,2-Dichloropropane	20.74	20.0	ug/L	104	70.0 - 130		0011227911
Chloroform	20.18	20.0	ug/L	101	70.0 - 130		0011227911
Ethylbenzene	20.57	20.0	ug/L	103	70.0 - 130		0011227911
Toluene	20.94	20.0	ug/L	105	70.0 - 130		0011227911
Vinyl chloride	17.34	20.0	ug/L	86.7	70.0 - 130		0011227911

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	Out	File
1,1,1,2-Tetrachloroethane	21.7	20.0	ug/L	108	80.0 - 120		0011227911

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Quality Control

Report To

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Project 456621

333965 **O** **Liquid Aqueous** **SW-846 8260B**

CCV

Parameter	*Reading*	*Known*	*Units*	*Recover%*	*Limits%*	*Out*	*File*
1,1,1-Trichloroethane	20.6	20.0	ug/L	103	80.0 - 120		0011227911
1,1,2,2-Tetrachloroethane	21.9	20.0	ug/L	110	80.0 - 120		0011227911
1,1,2-Trichloroethane	21.8	20.0	ug/L	109	80.0 - 120		0011227911
1,1-Dichloroethane	19.8	20.0	ug/L	99.0	80.0 - 120		0011227911
1,1-Dichloroethylene	20.6	20.0	ug/L	103	80.0 - 120		0011227911
1,1-Dichloropropene	20.7	20.0	ug/L	104	80.0 - 120		0011227911
1,2,3-Trichlorobenzene	19.5	20.0	ug/L	97.5	80.0 - 120		0011227911
1,2,3-Trichloropropane	21.4	20.0	ug/L	107	80.0 - 120		0011227911
1,2,4-Trichlorobenzene	19.6	20.0	ug/L	98.0	80.0 - 120		0011227911
1,2,4-Trimethylbenzene	19.9	20.0	ug/L	99.5	80.0 - 120		0011227911
1,2-Dibromo-3-chloropropan e	21.3	20.0	ug/L	106	80.0 - 120		0011227911
1,2-Dibromoethane	21.8	20.0	ug/L	109	80.0 - 120		0011227911
1,2-Dichlorobenzene	20.5	20.0	ug/L	102	80.0 - 120		0011227911
1,2-Dichloroethane	19.7	20.0	ug/L	98.5	80.0 - 120		0011227911
1,2-Dichloropropane	20.7	20.0	ug/L	104	80.0 - 120		0011227911
1,3,5-Trimethylbenzene	20.1	20.0	ug/L	100	80.0 - 120		0011227911
1,3-Dichlorobenzene	19.9	20.0	ug/L	99.5	80.0 - 120		0011227911
1,3-Dichloropropane	21.5	20.0	ug/L	108	80.0 - 120		0011227911
1,4-Dichlorobenzene	19.8	20.0	ug/L	99.0	80.0 - 120		0011227911
2,2-Dichloropropane	20.0	20.0	ug/L	100	80.0 - 120		0011227911
2-Chloroethylvinyl ether	26.4	20.0	ug/L	132	80.0 - 120	*	0011227911
2-Chlorotoluene	19.7	20.0	ug/L	98.5	80.0 - 120		0011227911
4-Chlorotoluene	20.5	20.0	ug/L	102	80.0 - 120		0011227911
Acetone	23.4	20.0	ug/L	117	80.0 - 120		0011227911
Acrolein	16.4	20.0	ug/L	82.0	80.0 - 120		0011227911
Acrylonitrile	20.9	20.0	ug/L	104	80.0 - 120		0011227911
Benzene	20.6	20.0	ug/L	103	80.0 - 120		0011227911
Bromobenzene	20.1	20.0	ug/L	100	80.0 - 120		0011227911
Bromochloromethane	19.8	20.0	ug/L	99.0	80.0 - 120		0011227911
Bromodichloromethane	20.7	20.0	ug/L	104	80.0 - 120		0011227911
Bromoform	20.2	20.0	ug/L	101	80.0 - 120		0011227911
Bromomethane (Methyl Bromi	17.7	20.0	ug/L	88.5	80.0 - 120		0011227911
Carbon Tetrachloride	21.3	20.0	ug/L	106	80.0 - 120		0011227911
Chlorobenzene	20.4	20.0	ug/L	102	80.0 - 120		0011227911
Chloroethane	22.8	20.0	ug/L	114	80.0 - 120		0011227911
Chloroform	20.2	20.0	ug/L	101	80.0 - 120		0011227911

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Report To

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Project 456621

333965 **O** **Liquid Aqueous** **SW-846 8260B**

CCV

Parameter	*Reading*	*Known*	*Units*	*Recover%*	*Limits%*	*Out*	*File*
Chloromethane	20.5	20.0	ug/L	102	80.0 - 120		0011227911
cis-1,2-Dichloroethene	19.8	20.0	ug/L	99.0	80.0 - 120		0011227911
cis-1,3-Dichloropropene	21.2	20.0	ug/L	106	80.0 - 120		0011227911
Dibromochloromethane	21.5	20.0	ug/L	108	80.0 - 120		0011227911
Dibromomethane	21.7	20.0	ug/L	108	80.0 - 120		0011227911
Dichlorodifluoromethane	21.4	20.0	ug/L	107	80.0 - 120		0011227911
Ethylbenzene	20.6	20.0	ug/L	103	80.0 - 120		0011227911
Hexachlorobutadiene	19.9	20.0	ug/L	99.5	80.0 - 120		0011227911
Isopropylbenzene (Cumene)	20.0	20.0	ug/L	100	80.0 - 120		0011227911
m- and p-Xylene	41.7	40.0	ug/L	104	80.0 - 120		0011227911
Methyl ethyl ketone (Butanone)	21.2	20.0	ug/L	106	80.0 - 120		0011227911
Methyl Isobutyl Ketone	21.8	20.0	ug/L	109	80.0 - 120		0011227911
Methylene chloride	19.3	20.0	ug/L	96.5	80.0 - 120		0011227911
Naphthalene	22.2	20.0	ug/L	111	80.0 - 120		0011227911
n-Butylbenzene	20.7	20.0	ug/L	104	80.0 - 120		0011227911
n-Propylbenzene	20.0	20.0	ug/L	100	80.0 - 120		0011227911
o-Xylene	21.0	20.0	ug/L	105	80.0 - 120		0011227911
p-Isopropyltoluene	20.3	20.0	ug/L	102	80.0 - 120		0011227911
sec-Butylbenzene	20.7	20.0	ug/L	104	80.0 - 120		0011227911
Styrene	20.7	20.0	ug/L	104	80.0 - 120		0011227911
tert-Butylbenzene	20.6	20.0	ug/L	103	80.0 - 120		0011227911
tert-Butylmethylether (MTBE)	17.9	20.0	ug/L	89.5	80.0 - 120		0011227911
Tetrachloroethylene	20.9	20.0	ug/L	104	80.0 - 120		0011227911
Toluene	20.9	20.0	ug/L	104	80.0 - 120		0011227911
trans-1,2-Dichloroethene	20.4	20.0	ug/L	102	80.0 - 120		0011227911
trans-1,3-Dichloropropene	21.4	20.0	ug/L	107	80.0 - 120		0011227911
Trichloroethylene	20.8	20.0	ug/L	104	80.0 - 120		0011227911
Trichlorofluoromethane	21.3	20.0	ug/L	106	80.0 - 120		0011227911
Vinyl chloride	17.3	20.0	ug/L	86.5	80.0 - 120		0011227911

IS Areas

Parameter	*Sample*	*Type*	*Reading*	*CCVISM*	*Low*	*High*	*Out*	*File*	*PrepSet*
1,4-DichlorobenzeneD4 (ISTD)	131884	UNKNOWN	29780	33185	16590	66370		0011227915	333965
ChlorobenzeneD5 (ISTD)	131884	UNKNOWN	69625	74123	37060	148200		0011227915	333965
1,4-DichlorobenzeneD4 (ISTD)	BLANK	Blank	30123	33185	16590	66370		0011227924	333965

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333965 **O** **Liquid Aqueous** **SW-846 8260B**

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	Out	File	PrepSet
ChlorobenzeneD5 (ISTD)	BLANK	Blank	69813	74123	37060	148200		0011227924	333965
1,4-DichlorobenzeneD4 (ISTD)	CCC/SP	CCV	33185	33185	16590	66370		0011227911	333965
ChlorobenzeneD5 (ISTD)	CCC/SP	CCV	74123	74123	37060	148200		0011227911	333965
1,4-DichlorobenzeneD4 (ISTD)	LCS 20	LCS Dup	30231	33185	16590	66370		0011227914	333965
1,4-DichlorobenzeneD4 (ISTD)	LCS 20	LCS	32693	33185	16590	66370		0011227913	333965
ChlorobenzeneD5 (ISTD)	LCS 20	LCS Dup	69461	74123	37060	148200		0011227914	333965
ChlorobenzeneD5 (ISTD)	LCS 20	LCS	74150	74123	37060	148200		0011227913	333965

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	Out	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	131884	UNKNOWN	14.530	14.520	14.46	14.58		0011227915	333965
ChlorobenzeneD5 (ISTD)	131884	UNKNOWN	10.830	10.840	10.78	10.90		0011227915	333965
1,4-DichlorobenzeneD4 (ISTD)	BLANK	Blank	14.520	14.520	14.46	14.58		0011227924	333965
ChlorobenzeneD5 (ISTD)	BLANK	Blank	10.830	10.840	10.78	10.90		0011227924	333965
1,4-DichlorobenzeneD4 (ISTD)	LCS 20	LCS	14.520	14.520	14.46	14.58		0011227913	333965
1,4-DichlorobenzeneD4 (ISTD)	LCS 20	LCS Dup	14.520	14.520	14.46	14.58		0011227914	333965
ChlorobenzeneD5 (ISTD)	LCS 20	LCS Dup	10.840	10.840	10.78	10.90		0011227914	333965
ChlorobenzeneD5 (ISTD)	LCS 20	LCS	10.850	10.840	10.78	10.90		0011227913	333965

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File	Out
1,1,1,2-Tetrachloroethane	333965	21.4	20.0	ug/L	107	81.3 - 116	0011227913	
1,1,1-Trichloroethane	333965	19.8	20.0	ug/L	99.0	82.2 - 114	0011227913	
1,1,2,2-Tetrachloroethane	333965	21.6	20.0	ug/L	108	78.5 - 119	0011227913	
1,1,2-Trichloroethane	333965	21.9	20.0	ug/L	110	90.0 - 115	0011227913	
1,1-Dichloroethane	333965	19.1	20.0	ug/L	95.5	81.4 - 110	0011227913	
1,1-Dichloroethylene	333965	20.4	20.0	ug/L	102	85.2 - 113	0011227913	
1,1-Dichloropropene	333965	20.0	20.0	ug/L	100	89.0 - 117	0011227913	
1,2,3-Trichlorobenzene	333965	22.2	20.0	ug/L	111	85.5 - 130	0011227913	
1,2,3-Trichloropropane	333965	22.4	20.0	ug/L	112	74.4 - 128	0011227913	
1,2,4-Trichlorobenzene	333965	20.9	20.0	ug/L	104	86.0 - 120	0011227913	
1,2,4-Trimethylbenzene	333965	20.0	20.0	ug/L	100	84.6 - 115	0011227913	
1,2-Dibromo-3-chloropropane	333965	23.1	20.0	ug/L	116	70.0 - 130	0011227913	

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Report To

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Project 456621

333965 **O** **Liquid Aqueous** **SW-846 8260B**

LCS

Parameter	*PrepSet*	*Reading*	*Known*	*Units*	*Recover%*	*Limits*	*File*	*Out*
1,2-Dibromoethane	333965	21.4	20.0	ug/L	107	85.4 - 121	0011227913	
1,2-Dichlorobenzene	333965	21.1	20.0	ug/L	106	84.1 - 109	0011227913	
1,2-Dichloroethane	333965	19.6	20.0	ug/L	98.0	84.0 - 119	0011227913	
1,2-Dichloropropane	333965	20.3	20.0	ug/L	102	90.2 - 111	0011227913	
1,3,5-Trimethylbenzene	333965	20.2	20.0	ug/L	101	88.6 - 117	0011227913	
1,3-Dichlorobenzene	333965	20.7	20.0	ug/L	104	82.8 - 108	0011227913	
1,3-Dichloropropane	333965	21.1	20.0	ug/L	106	86.7 - 115	0011227913	
1,4-Dichlorobenzene	333965	20.7	20.0	ug/L	104	87.8 - 109	0011227913	
2,2-Dichloropropane	333965	19.3	20.0	ug/L	96.5	79.9 - 125	0011227913	
2-Chloroethylvinyl ether	333965	17.1	20.0	ug/L	85.5	60.2 - 113	0011227913	
2-Chlorotoluene	333965	20.2	20.0	ug/L	101	85.3 - 113	0011227913	
4-Chlorotoluene	333965	20.3	20.0	ug/L	102	86.9 - 117	0011227913	
Acetone	333965	26.6	20.0	ug/L	133	70.0 - 130	0011227913	*
Acrolein	333965	15.6	20.0	ug/L	78.0	10.0 - 200	0011227913	
Acrylonitrile	333965	20.5	20.0	ug/L	102	64.8 - 129	0011227913	
Benzene	333965	20.4	20.0	ug/L	102	91.3 - 111	0011227913	
Bromobenzene	333965	20.2	20.0	ug/L	101	81.3 - 121	0011227913	
Bromochloromethane	333965	20.2	20.0	ug/L	101	86.6 - 116	0011227913	
Bromodichloromethane	333965	19.5	20.0	ug/L	97.5	85.2 - 108	0011227913	
Bromoform	333965	20.2	20.0	ug/L	101	70.9 - 115	0011227913	
Bromomethane (Methyl Bromi	333965	16.3	20.0	ug/L	81.5	62.8 - 115	0011227913	
Carbon Tetrachloride	333965	20.8	20.0	ug/L	104	88.3 - 118	0011227913	
Chlorobenzene	333965	20.2	20.0	ug/L	101	89.4 - 113	0011227913	
Chloroethane	333965	20.0	20.0	ug/L	100	70.0 - 130	0011227913	
Chloroform	333965	19.8	20.0	ug/L	99.0	85.8 - 109	0011227913	
Chloromethane	333965	19.2	20.0	ug/L	96.0	72.6 - 120	0011227913	
cis-1,2-Dichloroethene	333965	18.6	20.0	ug/L	93.0	81.6 - 105	0011227913	
cis-1,3-Dichloropropene	333965	20.2	20.0	ug/L	101	79.9 - 110	0011227913	
Dibromochloromethane	333965	20.3	20.0	ug/L	102	80.4 - 114	0011227913	
Dibromomethane	333965	20.8	20.0	ug/L	104	84.6 - 121	0011227913	
Dichlorodifluoromethane	333965	18.3	20.0	ug/L	91.5	58.3 - 111	0011227913	
Ethylbenzene	333965	20.8	20.0	ug/L	104	91.2 - 115	0011227913	
Hexachlorobutadiene	333965	21.5	20.0	ug/L	108	79.3 - 130	0011227913	
Isopropylbenzene (Cumene)	333965	21.4	20.0	ug/L	107	89.5 - 126	0011227913	
m- and p-Xylene	333965	41.8	40.0	ug/L	104	86.1 - 117	0011227913	
Methyl ethyl ketone (Butanone)	333965	19.6	20.0	ug/L	98.0	70.0 - 130	0011227913	

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Report To

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Project 456621

333965 **O** **Liquid Aqueous** **SW-846 8260B**

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File	Out
Methyl Isobutyl Ketone	333965	20.0	20.0	ug/L	100	70.0 - 130	0011227913	
Methylene chloride	333965	19.6	20.0	ug/L	98.0	85.9 - 108	0011227913	
Naphthalene	333965	24.0	20.0	ug/L	120	80.1 - 130	0011227913	
n-Butylbenzene	333965	21.2	20.0	ug/L	106	86.4 - 121	0011227913	
n-Propylbenzene	333965	21.0	20.0	ug/L	105	87.0 - 117	0011227913	
o-Xylene	333965	21.5	20.0	ug/L	108	91.7 - 117	0011227913	
p-Isopropyltoluene	333965	20.8	20.0	ug/L	104	89.3 - 119	0011227913	
sec-Butylbenzene	333965	20.5	20.0	ug/L	102	85.1 - 118	0011227913	
Styrene	333965	20.0	20.0	ug/L	100	88.0 - 113	0011227913	
tert-Butylbenzene	333965	21.5	20.0	ug/L	108	89.6 - 116	0011227913	
tert-Butylmethylether (MTBE)	333965	19.5	20.0	ug/L	97.5	78.6 - 130	0011227913	
Tetrachloroethylene	333965	21.0	20.0	ug/L	105	90.4 - 119	0011227913	
Toluene	333965	20.3	20.0	ug/L	102	91.5 - 114	0011227913	
trans-1,2-Dichloroethene	333965	20.3	20.0	ug/L	102	90.5 - 115	0011227913	
trans-1,3-Dichloropropene	333965	22.8	20.0	ug/L	114	81.0 - 127	0011227913	
Trichloroethylene	333965	20.1	20.0	ug/L	100	81.6 - 110	0011227913	
Trichlorofluoromethane	333965	19.4	20.0	ug/L	97.0	78.6 - 118	0011227913	
Vinyl chloride	333965	17.0	20.0	ug/L	85.0	74.3 - 118	0011227913	

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,1,1,2-Tetrachloroethane	333965	21.4	20.4	20.0	81.3 - 116	107	102	ug/L	4.78	30.0
1,1,1-Trichloroethane	333965	19.8	19.0	20.0	82.2 - 114	99.0	95.0	ug/L	4.12	30.0
1,1,2,2-Tetrachloroethane	333965	21.6	21.4	20.0	78.5 - 119	108	107	ug/L	0.930	30.0
1,1,2-Trichloroethane	333965	21.9	21.6	20.0	90.0 - 115	110	108	ug/L	1.83	30.0
1,1-Dichloroethane	333965	19.1	18.3	20.0	81.4 - 110	95.5	91.5	ug/L	4.28	30.0
1,1-Dichloroethylene	333965	20.4	19.5	20.0	85.2 - 113	102	97.5	ug/L	4.51	30.0
1,1-Dichloropropene	333965	20.0	19.2	20.0	89.0 - 117	100	96.0	ug/L	4.08	30.0
1,2,3-Trichlorobenzene	333965	22.2	21.8	20.0	85.5 - 130	111	109	ug/L	1.82	30.0
1,2,3-Trichloropropane	333965	22.4	21.3	20.0	74.4 - 128	112	106	ug/L	5.50	30.0
1,2,4-Trichlorobenzene	333965	20.9	21.3	20.0	86.0 - 120	104	106	ug/L	1.90	30.0
1,2,4-Trimethylbenzene	333965	20.0	19.8	20.0	84.6 - 115	100	99.0	ug/L	1.01	30.0
1,2-Dibromo-3-chloropropane	333965	23.1	21.5	20.0	70.0 - 130	116	108	ug/L	7.14	30.0
1,2-Dibromoethane	333965	21.4	20.6	20.0	85.4 - 121	107	103	ug/L	3.81	30.0
1,2-Dichlorobenzene	333965	21.1	21.0	20.0	84.1 - 109	106	105	ug/L	0.948	30.0
1,2-Dichloroethane	333965	19.6	19.3	20.0	84.0 - 119	98.0	96.5	ug/L	1.54	30.0
1,2-Dichloropropane	333965	20.3	19.5	20.0	90.2 - 111	102	97.5	ug/L	4.51	30.0

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Quality Control

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Project 456621

333965 **O** **Liquid Aqueous** **SW-846 8260B**

LCS Dup

Parameter	*PrepSet*	*LCS*	*LCSD*	*Known*	*Limits%*	*LCS%*	*LCSD%*	*Units*	*RPD*	*Limit%*
1,3,5-Trimethylbenzene	333965	20.2	20.4	20.0	88.6 - 117	101	102	ug/L	0.985	30.0
1,3-Dichlorobenzene	333965	20.7	20.3	20.0	82.8 - 108	104	102	ug/L	1.94	30.0
1,3-Dichloropropane	333965	21.1	19.8	20.0	86.7 - 115	106	99.0	ug/L	6.83	30.0
1,4-Dichlorobenzene	333965	20.7	20.1	20.0	87.8 - 109	104	100	ug/L	3.92	30.0
2,2-Dichloropropane	333965	19.3	17.9	20.0	79.9 - 125	96.5	89.5	ug/L	7.53	30.0
2-Chloroethylvinyl ether	333965	17.1	16.9	20.0	60.2 - 113	85.5	84.5	ug/L	1.18	30.0
2-Chlorotoluene	333965	20.2	19.6	20.0	85.3 - 113	101	98.0	ug/L	3.02	30.0
4-Chlorotoluene	333965	20.3	19.7	20.0	86.9 - 117	102	98.5	ug/L	3.49	30.0
Acetone	333965	26.6	21.6	20.0	70.0 - 130	133 *	108	ug/L	20.7	30.0
Acrolein	333965	15.6	15.9	20.0	10.0 - 200	78.0	79.5	ug/L	1.90	30.0
Acrylonitrile	333965	20.5	18.8	20.0	64.8 - 129	102	94.0	ug/L	8.16	30.0
Benzene	333965	20.4	19.6	20.0	91.3 - 111	102	98.0	ug/L	4.00	30.0
Bromobenzene	333965	20.2	19.8	20.0	81.3 - 121	101	99.0	ug/L	2.00	30.0
Bromochloromethane	333965	20.2	19.5	20.0	86.6 - 116	101	97.5	ug/L	3.53	30.0
Bromodichloromethane	333965	19.5	19.0	20.0	85.2 - 108	97.5	95.0	ug/L	2.60	30.0
Bromoform	333965	20.2	19.7	20.0	70.9 - 115	101	98.5	ug/L	2.51	30.0
Bromomethane (Methyl Bromi	333965	16.3	15.0	20.0	62.8 - 115	81.5	75.0	ug/L	8.31	30.0
Carbon Tetrachloride	333965	20.8	18.9	20.0	88.3 - 118	104	94.5	ug/L	9.57	30.0
Chlorobenzene	333965	20.2	19.8	20.0	89.4 - 113	101	99.0	ug/L	2.00	30.0
Chloroethane	333965	20.0	20.2	20.0	70.0 - 130	100	101	ug/L	0.995	30.0
Chloroform	333965	19.8	18.6	20.0	85.8 - 109	99.0	93.0	ug/L	6.25	30.0
Chloromethane	333965	19.2	18.5	20.0	72.6 - 120	96.0	92.5	ug/L	3.71	30.0
cis-1,2-Dichloroethene	333965	18.6	17.3	20.0	81.6 - 105	93.0	86.5	ug/L	7.24	30.0
cis-1,3-Dichloropropene	333965	20.2	19.4	20.0	79.9 - 110	101	97.0	ug/L	4.04	30.0
Dibromochloromethane	333965	20.3	20.1	20.0	80.4 - 114	102	100	ug/L	1.98	30.0
Dibromomethane	333965	20.8	20.2	20.0	84.6 - 121	104	101	ug/L	2.93	30.0
Dichlorodifluoromethane	333965	18.3	17.5	20.0	58.3 - 111	91.5	87.5	ug/L	4.47	30.0
Ethylbenzene	333965	20.8	20.0	20.0	91.2 - 115	104	100	ug/L	3.92	30.0
Hexachlorobutadiene	333965	21.5	21.1	20.0	79.3 - 130	108	106	ug/L	1.87	30.0
Isopropylbenzene (Cumene)	333965	21.4	21.2	20.0	89.5 - 126	107	106	ug/L	0.939	30.0
m- and p-Xylene	333965	41.8	41.1	40.0	86.1 - 117	104	103	ug/L	0.966	30.0
Methyl ethyl ketone (Butanone)	333965	19.6	18.7	20.0	70.0 - 130	98.0	93.5	ug/L	4.70	30.0
Methyl Isobutyl Ketone	333965	20.0	20.4	20.0	70.0 - 130	100	102	ug/L	1.98	30.0
Methylene chloride	333965	19.6	18.6	20.0	85.9 - 108	98.0	93.0	ug/L	5.24	30.0
Naphthalene	333965	24.0	23.6	20.0	80.1 - 130	120	118	ug/L	1.68	30.0
n-Butylbenzene	333965	21.2	21.0	20.0	86.4 - 121	106	105	ug/L	0.948	30.0

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Quality Control

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Project 456621

333965 **O** **Liquid Aqueous** **SW-846 8260B**

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
n-Propylbenzene	333965	21.0	20.5	20.0	87.0 - 117	105	102	ug/L	2.90	30.0
o-Xylene	333965	21.5	21.1	20.0	91.7 - 117	108	106	ug/L	1.87	30.0
p-Isopropyltoluene	333965	20.8	20.8	20.0	89.3 - 119	104	104	ug/L	0	30.0
sec-Butylbenzene	333965	20.5	20.7	20.0	85.1 - 118	102	104	ug/L	1.94	30.0
Styrene	333965	20.0	19.6	20.0	88.0 - 113	100	98.0	ug/L	2.02	30.0
tert-Butylbenzene	333965	21.5	21.2	20.0	89.6 - 116	108	106	ug/L	1.87	30.0
tert-Butylmethylether (MTBE)	333965	19.5	18.7	20.0	78.6 - 130	97.5	93.5	ug/L	4.19	30.0
Tetrachloroethylene	333965	21.0	20.6	20.0	90.4 - 119	105	103	ug/L	1.92	30.0
Toluene	333965	20.3	19.7	20.0	91.5 - 114	102	98.5	ug/L	3.49	30.0
trans-1,2-Dichloroethene	333965	20.3	19.3	20.0	90.5 - 115	102	96.5	ug/L	5.54	30.0
trans-1,3-Dichloropropene	333965	22.8	21.7	20.0	81.0 - 127	114	108	ug/L	5.41	30.0
Trichloroethylene	333965	20.1	19.7	20.0	81.6 - 110	100	98.5	ug/L	1.51	30.0
Trichlorofluoromethane	333965	19.4	19.2	20.0	78.6 - 118	97.0	96.0	ug/L	1.04	30.0
Vinyl chloride	333965	17.0	16.6	20.0	74.3 - 118	85.0	83.0	ug/L	2.38	30.0

SPCC

Parameter	Sample	RF	Minimum	File
1,1,2,2-Tetrachloroethane	SPCC	1.188	0.300	0011227912
1,1-Dichloroethane	SPCC	0.735	0.100	0011227912
Bromoform	SPCC	0.514	0.100	0011227912
Chlorobenzene	SPCC	1.149	0.300	0011227912
Chloromethane	SPCC	0.478	0.100	0011227912

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	131884	UNKNOWN	18.9	20.0	ug/L	94.5	65.5 - 181	0011227915
Bromofluorobenzene (SURR)	131884	UNKNOWN	19.9	20.0	ug/L	99.5	73.5 - 120	0011227915
Dibromofluoromethane (SURR)	131884	UNKNOWN	18.6	20.0	ug/L	93.0	78.2 - 130	0011227915
ToluneneD8 (SURR)	131884	UNKNOWN	19.8	20.0	ug/L	99.0	70.0 - 130	0011227915
1,2-DCA-d4 (SURR)	BLANK	Blank	19.5	20.0	ug/L	97.5	65.5 - 181	0011227924
Bromofluorobenzene (SURR)	BLANK	Blank	20.7	20.0	ug/L	104	73.5 - 120	0011227924
Dibromofluoromethane (SURR)	BLANK	Blank	18.9	20.0	ug/L	94.5	78.2 - 130	0011227924
ToluneneD8 (SURR)	BLANK	Blank	20.1	20.0	ug/L	100	70.0 - 130	0011227924
1,2-DCA-d4 (SURR)	CCC/SP	CCV	20.2	20.0	ug/L	101	65.5 - 181	0011227911

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Quality Control

Report To

Greg Osuna
Alamo Environmental
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Project 456621

333965 O Liquid Aqueous SW-846 8260B

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Bromofluorobenzene (SURR)	CCC/SP	CCV	20.6	20.0	ug/L	103	73.5 - 120	0011227911
Dibromofluoromethane (SURR)	CCC/SP	CCV	19.7	20.0	ug/L	98.5	78.2 - 130	0011227911
ToluneneD8 (SURR)	CCC/SP	CCV	20.5	20.0	ug/L	102	70.0 - 130	0011227911
1,2-DCA-d4 (SURR)	LCS 20	LCS Dup	19.4	20.0	ug/L	97.0	65.5 - 181	0011227914
1,2-DCA-d4 (SURR)	LCS 20	LCS	20.0	20.0	ug/L	100	65.5 - 181	0011227913
Bromofluorobenzene (SURR)	LCS 20	LCS Dup	20.4	20.0	ug/L	102	73.5 - 120	0011227914
Bromofluorobenzene (SURR)	LCS 20	LCS	20.5	20.0	ug/L	102	73.5 - 120	0011227913
Dibromofluoromethane (SURR)	LCS 20	LCS	19.7	20.0	ug/L	98.5	78.2 - 130	0011227913
Dibromofluoromethane (SURR)	LCS 20	LCS Dup	19.7	20.0	ug/L	98.5	78.2 - 130	0011227914
ToluneneD8 (SURR)	LCS 20	LCS	20.4	20.0	ug/L	102	70.0 - 130	0011227913
ToluneneD8 (SURR)	LCS 20	LCS Dup	20.4	20.0	ug/L	102	70.0 - 130	0011227914

335250 O Liquid Aqueous SW-846 8330

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	Out	File
1,3,5 Trinitrobenzene	334559	ND	0.837	50.0	ug/L		0011252032
1,3-Dinitrobenzene (DNB)	334559	ND	1.68	50.0	ug/L		0011252032
2,4,6-Trinitrotoluene	334559	ND	1.11	50.0	ug/L		0011252032
2,4-Dinitrotoluene	334559	ND	0.744	50.0	ug/L		0011252032
2,6 Dinitrotoluene	334559	ND	1.20	50.0	ug/L		0011252032
2-Amino-4,6-dinitrotoluene	334559	ND	0.884	50.0	ug/L		0011252032
2-Nitrotoluene	334559	ND	0.647	50.0	ug/L		0011252032
3-Nitrotoluene	334559	ND	0.831	50.0	ug/L		0011252032
4-Amino-2,6-dinitrotoluene	334559	ND	1.58	50.0	ug/L		0011252032
4-Nitrotoluene	334559	ND	1.37	50.0	ug/L		0011252032
HMX	334559	ND	0.454	50.0	ug/L		0011252032
Nitrobenzene	334559	ND	0.753	50.0	ug/L		0011252032
RDX	334559	ND	3.87	50.0	ug/L		0011252032
Tetryl	334559	ND	0.519	50.0	ug/L		0011252032

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	Out	File
1,3,5 Trinitrobenzene	471	500	ug/L	94.2	70.0 - 130		0011252031
1,3,5 Trinitrobenzene	532	500	ug/L	106	70.0 - 130		0011252045

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Quality Control

Report To

Greg Osuna
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10843 Gulfdale
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Project 456621

335250 **O** **Liquid Aqueous** **SW-846 8330**

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	Out	File
1,3-Dinitrobenzene (DNB)	471	500	ug/L	94.2	70.0 - 130		0011252045
1,3-Dinitrobenzene (DNB)	478	500	ug/L	95.6	70.0 - 130		0011252031
2,4,6-Trinitrotoluene	467	500	ug/L	93.4	70.0 - 130		0011252031
2,4,6-Trinitrotoluene	473	500	ug/L	94.6	70.0 - 130		0011252045
2,4-Dinitrotoluene	483	500	ug/L	96.6	70.0 - 130		0011252031
2,4-Dinitrotoluene	502	500	ug/L	100	70.0 - 130		0011252045
2,6 Dinitrotoluene	468	500	ug/L	93.6	70.0 - 130		0011252031
2,6 Dinitrotoluene	498	500	ug/L	99.6	70.0 - 130		0011252045
2-Amino-4,6-dinitrotoluene	464	500	ug/L	92.8	70.0 - 130		0011252031
2-Amino-4,6-dinitrotoluene	521	500	ug/L	104	70.0 - 130		0011252045
2-Nitrotoluene	470	500	ug/L	94.0	70.0 - 130		0011252045
2-Nitrotoluene	486	500	ug/L	97.2	70.0 - 130		0011252031
3-Nitrotoluene	475	500	ug/L	95.0	70.0 - 130		0011252031
3-Nitrotoluene	483	500	ug/L	96.6	70.0 - 130		0011252045
4-Amino-2,6-dinitrotoluene	493	500	ug/L	98.6	70.0 - 130		0011252031
4-Amino-2,6-dinitrotoluene	549	500	ug/L	110	70.0 - 130		0011252045
4-Nitrotoluene	468	500	ug/L	93.6	70.0 - 130		0011252031
4-Nitrotoluene	471	500	ug/L	94.2	70.0 - 130		0011252045
HMX	462	500	ug/L	92.4	70.0 - 130		0011252045
HMX	464	500	ug/L	92.8	70.0 - 130		0011252031
Nitrobenzene	475	500	ug/L	95.0	70.0 - 130		0011252031
Nitrobenzene	488	500	ug/L	97.6	70.0 - 130		0011252045
RDX	474	500	ug/L	94.8	70.0 - 130		0011252031
RDX	478	500	ug/L	95.6	70.0 - 130		0011252045
Tetryl	461	500	ug/L	92.2	70.0 - 130		0011252031
Tetryl	462	500	ug/L	92.4	70.0 - 130		0011252045

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File	Out
1,3,5 Trinitrobenzene	334559	228	250	ug/L	91.2	70.0 - 130	0011252033	
1,3-Dinitrobenzene (DNB)	334559	234	250	ug/L	93.6	70.0 - 130	0011252033	
2,4,6-Trinitrotoluene	334559	260	250	ug/L	104	60.0 - 130	0011252033	
2,4-Dinitrotoluene	334559	247	250	ug/L	98.8	70.0 - 130	0011252033	
2,6 Dinitrotoluene	334559	237	250	ug/L	94.8	70.0 - 130	0011252033	
2-Amino-4,6-dinitrotoluene	334559	259	250	ug/L	104	70.0 - 130	0011252033	
2-Nitrotoluene	334559	251	250	ug/L	100	70.0 - 130	0011252033	
3-Nitrotoluene	334559	206	250	ug/L	82.4	70.0 - 130	0011252033	
4-Amino-2,6-dinitrotoluene	334559	227	250	ug/L	90.8	70.0 - 130	0011252033	

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Quality Control

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Report To

Greg Osuna
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10843 Gulfdale
San Antonio, TX 78205-

Project 456621

335250 **O** **Liquid Aqueous** **SW-846 8330**

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File	Out
4-Nitrotoluene	334559	247	250	ug/L	98.8	70.0 - 130	0011252033	
HMX	334559	236	250	ug/L	94.4	70.0 - 130	0011252033	
Nitrobenzene	334559	216	250	ug/L	86.4	70.0 - 130	0011252033	
RDX	334559	226	250	ug/L	90.4	70.0 - 130	0011252033	
Tetryl	334559	223	250	ug/L	89.2	70.0 - 130	0011252033	

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,3,5 Trinitrobenzene	334559	228	259	250	70.0 - 130	91.2	109	ug/L	17.8	30.0
1,3-Dinitrobenzene (DNB)	334559	234	269	250	70.0 - 130	93.6	113	ug/L	18.8	30.0
2,4,6-Trinitrotoluene	334559	260	297	250	60.0 - 130	104	125	ug/L	18.3	30.0
2,4-Dinitrotoluene	334559	247	281	250	70.0 - 130	98.8	118	ug/L	17.7	30.0
2,6 Dinitrotoluene	334559	237	276	250	70.0 - 130	94.8	116	ug/L	20.1	30.0
2-Amino-4,6-dinitrotoluene	334559	259	276	250	70.0 - 130	104	116	ug/L	10.9	30.0
2-Nitrotoluene	334559	251	270	250	70.0 - 130	100	113	ug/L	12.2	30.0
3-Nitrotoluene	334559	206	246	250	70.0 - 130	82.4	103	ug/L	22.2	30.0
4-Amino-2,6-dinitrotoluene	334559	227	251	250	70.0 - 130	90.8	105	ug/L	14.5	30.0
4-Nitrotoluene	334559	247	272	250	70.0 - 130	98.8	114	ug/L	14.3	30.0
HMX	334559	236	253	250	70.0 - 130	94.4	106	ug/L	11.6	30.0
Nitrobenzene	334559	216	252	250	70.0 - 130	86.4	106	ug/L	20.4	30.0
RDX	334559	226	248	250	70.0 - 130	90.4	104	ug/L	14.0	30.0
Tetryl	334559	223	274	250	70.0 - 130	89.2	115	ug/L	25.3	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
3,4-DNT	131883	UNKNOWN	12.5	13.0	ug/L	96.2	70.0 - 130	0011252035
3,4-DNT	131885	UNKNOWN	11.6	13.0	ug/L	89.2	70.0 - 130	0011252036
3,4-DNT	131887	UNKNOWN			ug/L		70.0 - 130	0011252037
3,4-DNT	131888	UNKNOWN	12.9	13.0	ug/L	99.2	70.0 - 130	0011252038
3,4-DNT	131890	UNKNOWN	12.6	13.0	ug/L	96.9	70.0 - 130	0011252039
3,4-DNT	334559	Blank	231	227	ug/L	102	70.0 - 130	0011252032
3,4-DNT	334559	LCS	236	250	ug/L	94.4	70.0 - 130	0011252033
3,4-DNT	500 PP	CCV	489	500	ug/L	97.8	70.0 - 130	0011252031
3,4-DNT	500 PP	CCV	514	500	ug/L	103	70.0 - 130	0011252045

RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

Phyllis 5126949326

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Chain of Custody

ALA4

Panhandle	Oklahoma	North TX	Central TX
806.355.3556	405.292.6630	817.261.6404	512.821.0045
Rio Grand Valley	**Louisiana**	**Gulf Coast**	**Alabama**
956.831.6437	318.219.9300	281.333.9414	256.651.7264

Report to: Greg Osuna
Company name: Alamo
Address: 10843 Gulfdale
City: San Antonio State: TX Zip: 78216
Phone: 210 404 1220 Fax:

Project-name/location: LHAAP 19 LFCA Karnack, TX
Billing Address (if different):
City State Zip
Phone Fax: AR09195

Sampler Signature: [signature] Printed Name: PHYLLIS PRIMROSE Affiliation: RCG PO Number: ~~AR09195 for~~

Analysis Requested: Perchlorate, Explosives, VOCs

Lab Number Do Not Use	Field Identification	Date	Time	Matrix	# of Containers	Notes	Perchlorate	Explosives	VOCs					
131883	EQB1	9/8/09	0845	Water	4	Refer to Workplan	X	X						
884	Trip Blank	"	NA		1	for LORs			X					
885	MW2	"	1640	water	2	unfiltered	X	X						
886	MW2F	"	1645	water	2	filtered	X	X	— call Phyllis/hold					
887	EQB2	9/9/05	1045	water	2		X	X						
888	MW3	9/9/05	1245	water	2		X	X						
889	MW3F	9/9/05	1320	water	2	filtered	X	X	— call Phyllis/hold					
890	MW1	9/9/05	1815	water	4	unfiltered	X	X						
891	Temp Blank	"	—											

Date	Time	Relinquished by: Printed Name	Signature	Affiliation	Received by: Printed Name	Signature	Affiliation
9/9/9	2030	Phyllis Primrose	[signature]	RCG	Antonio Jones	[signature]	Ana-lab

☐ Wastewater ☐ Drinking Water ☐ SW846
Samples contain ☐ HF ☐ CN ☐ S= ☐ other##

Samples Received on Ice? ☑ Yes ☐ No Method of Shipment ☐ Bus ☐ FedEx ☐ Lone Star ☐ UPS ☑ Hand delivered ☐ Airborne ☐ other ##comments
Cooler/Sample Secure? ☑ Yes ☐ No Tracking or Shipping Number _____
Requested TAT ☐ Routine ☐ 3 day ☐ 2 Day ☐ 24 Hr. ☐ 2-8 Hour ☐ Samples contain HF CN

Ana-Lab personnel collect samples as specified by Ana-Lab SOP #000323.

003689 ☐
003233 ☐
003532 ☐
003688 ☐

Sample analysis will be provided according to Ana-Lab's Standard Terms and Conditions of Agreement, available upon request and at www.ana-lab.com. Other terms proposed by Client are deemed material alterations and are rejected unless expressly agreed to in writing by Ana-Lab.

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00122013

Data Usability Summary
LHAAP-19
Lab Project No. 456622

Introduction

Regulatory Compliance & Guidance (RCG) reviewed one data package (Project No. 456622) from Ana-Lab Corporation. The data package was reviewed following guidance (Consistency Document[1] and TRRP-13[2]) prepared by the Texas Commission on Environmental Quality (TCEQ) and the equivalent sections of engineering manual (EM) 200-1-10[3] prepared by the US Army Corps of Engineers (USACE).

Intended Use of Data

The intended use of the data is to support a risk-based closure of the LHAAP-19 under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) consistent with requirements of Title 30 Texas Administrative Code (TAC) §335.8 (relating to closure and remediation).

Data Package Content

In order to ensure data quality, a TRRP-13 reporting package was provided by the laboratory. The data package included the following:

- completed chain of custody form,
- analytical results,
- sample preparation chronology,
- signature page, and
- quality control data

Chain of Custody Form

Five (5) groundwater samples were collected on September 8 and 9, 2009 from the Longhorn Army Ammunition Plant (LHAAP) Site 19 in Karnack, TX (Site). Filtered samples (designated with an “F”) were collected from two of the monitoring wells. One equipment blank, designated as “EQB”, was prepared for each day of sampling. A trip blank and a temperature blank were transported in the cooler along with the samples.

According to the chain of custody form, the unfiltered (3) groundwater samples and the equipment blanks were to be analyzed for perchlorate and explosives. The filtered groundwater samples were placed on hold pending analyses of the unfiltered samples.

The report only covers the perchlorate results for the filtered groundwater samples.

---

[1] TCEQ. 1998. Interoffice Memorandum regarding Implementation of the Existing Risk Reduction Rule. July 23.
[2] TCEQ. 2002. Review and Reporting COC Concentration Data. RG366/TRRP-13. December.
[3] USACE. 2005. Guidance for Evaluating Performance-Based Chemical Data. EM 200-1-10. June 30. http://140.194.76.129/publications/eng-manuals/em200-1-10/entire.pdf

Analytical Methods, Preservation, and Holding Times

Perchlorate was analyzed using analytical method 314.0 as described in the *Determination of Perchlorate in Drinking Water using Ion Chromatography.*[4] This analytical method was specified in the TCEQ-approved Work Plan[5] for this project.

EPA (1999) specifies that perchlorate samples do not need to be preserved and the holding time is 28 days. The samples were stored on ice until delivered to the lab. The samples were analyzed on September 24, 2009 (perchlorate). Preparation and analyses for perchlorate were compliant with the holding times.

Quality Control

Blanks

Blanks are used to determine if the samples may have been contaminated as the result of transportation or laboratory practices. If an analyte is detected in a blank, then a detected result in an associated sample may not be representative of actual site conditions.

Perchlorate was not detected in the laboratory blank.

Laboratory Control Samples

According to the Environmental Protection Agency (EPA)[6], "The primary purpose of the laboratory control sample (LCS) is to demonstrate that the laboratory can perform the overall analytical approach in a matrix free of interferences (e.g, in reagent water, clean sand, or another suitable reference matrix)." The percent recovery indicates the accuracy of the lab and whether the data is biased (high or low). The relative percent difference (RPD) indicates the laboratory's ability to reproduce the data (precision).

The laboratory did not report any results for an LCS.

Matrix spike and matrix spike duplicate (MS/MSD)

The MS/MSD results measure a method's performance relative to the specific sample matrix of interest (EPA, 2009). If the percent recoveries and relative percent differences (RPDs) for the MS/MSD are similar to those of the LCS/LCSDs, then matrix interference is unlikely.

Project samples were not used as the MS/MSD. Therefore, this section is not applicable.

Surrogate Recoveries

Surrogates are similar in chemical composition to the organic analytes of interest. The surrogates are spiked into environmental and batch QC samples prior to sample

[4] EPA. 1999. Method 314.0 Determination of Perchlorate in Drinking Water Using Ion Chromatography. Rev. 1.0. November.
[5] USACE. 2009. Landfill Closure Assessment Work Plan for the Construction & Demolition Debris Landfill (LHAAP-19), Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas. August 5.
[6] EPA. 2009. Batch Sizes and QC Questions. Downloaded from web page on December 4. http://www.epa.gov/osw/hazard/testmethods/faq/faqs_qc.htm#Spike

preparation and analysis. Surrogate recoveries are used to evaluate potential bias that could have been introduced by the preparatory procedures and/or the analysis (TCEQ, 2002) and to evaluate matrix interference on a sample-specific basis (USACE, 2001).

Surrogate recoveries are not applicable for perchlorate.

Analytical Results

Detected
Perchlorate was not detected in the environmental samples.

Non-detected
Non-detected results were reported as less than the reporting limit (RL). The associated narrative states that the RL is equivalent to the sample quantitation limit (SQL) and the RL is “at or above the method detection limit (MDL)”.

Perchlorate was not detected in any of the associated samples. The SQLs were less than the applicable regulatory standards based on residential land use.

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Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com LELAP-accredited #02008

Analytical Results

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Report Table of Contents

Account
ALA4

Project
456622

LHAAP 19 LFCA Karnack, TX-Hold

This report consists of this Table of Contents and the following pages:

Report Name	Description	Pages
456622_r03_03_ProjectResults	Ana-Lab Project P:456622 C:ALA4 Project Results	2
456622_r10_05_PROJQCG	Ana-Lab Project P:456622 C:ALA4 Project Quality Control Groups	1
456622_r99_09_CoC_ALA4_1_of_1	Ana-Lab CoC ALA4 456622_1_of_1	1
	Total Pages:	4

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com LELAP-accredited #02008

Results

Printed: 10/02/2009

Account **ALA4-C**

Project **456622**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP 19 LFCA Karnack, TX-Hold

Results

Accredited	Parameter	Results	Units	RL	Flags	CAS	Bottle
131886	**MW2F**	Filtered				*Received:*	09/09/2009
	Liquid Aqueous	*Collected by:* P Primrose		*Affiliation:*	RCG Texas	09/08/2009	16:45
	EPA 314.0			*Analyzed:*	*GDG*	*09/24/2009*	*1237* *QCgroup* *335936*
z	**Perchlorate**	**<40.0**	**ug/L**	40.0			01
131889	**MW3F**	filtered				*Received:*	09/09/2009
	Liquid Aqueous	*Collected by:* P Primrose		*Affiliation:*	RCG Texas	09/09/2009	13:20
	EPA 314.0			*Analyzed:*	*GDG*	*09/24/2009*	*1629* *QCgroup* *335936*
z	**Perchlorate**	**<40.0**	**ug/L**	40.0			01

Sample Preparation

131886	**MW2F**	Filtered				*Received:*	09/09/2009
				Analyzed:	*AAJ*	*09/10/2009*	
z	**Bottle pH**	**8**	**SU**				01
z	**Bottle pH**	**8**	**SU**				02
	Bottle Temperature on Receipt	**3**	**degrees**				01
	Bottle Temperature on Receipt	**3**	**degrees**				02
	SW8330			*Analyzed:*	*TRP*	*09/14/2009*	*0830* *QCgroup* *334559*
AN	**Explosives Extraction**	**18/770**	**ml**				02
131889	**MW3F**	filtered				*Received:*	09/09/2009
				Analyzed:	*AAJ*	*09/10/2009*	
z	**Bottle pH**	**7**	**SU**				01
z	**Bottle pH**	**7**	**SU**				02
	Bottle Temperature on Receipt	**3**	**degrees**				01
	Bottle Temperature on Receipt	**3**	**degrees**				02
	SW8330			*Analyzed:*	*TRP*	*09/14/2009*	*0830* *QCgroup* *334559*
AN	**Explosives Extraction**	**21/770**	**ml**				02

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663

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Results

Printed:
10/02/2009 Page 2 of 2

Account	*Project*
ALA4-C	**456622**

Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

LHAAP 19 LFCA Karnack, TX-Hold

Qualifiers:

We report results on an 'As Received' or wet basis unless marked 'Dry Weight'. Unless otherwise noted, testing was performed at Ana-lab's corporate laboratory that holds the following Federal and State certificates: Texas Department of Health Lead Firm Certificate 2110076, EPA National Lead Laboratory Accreditation Program #637.01, US Department of Agriculture Soil Import Permit S-37592, Texas Commisson on Environmental Quality Drinking Water Laboratory Certificate TX219, Texas Commission on Environmental Quality NELAP T104704201-06-TX, Oklahoma Department of Environmental Quality Drinking Water Certification Lab ID# D9913, EPA Lab Number TX00063, USEPA Approved Perchlorate Testing Lab, Oklahoma Department of Environmental Quality Laboratory Certificate 8125, Arkansas Department of Environmental Quality Certification #03-070-0, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) # LA030020, US Department of Energy Approved, State of Kansas Department of Health and Environment Waste Water and Solid/Hazardous Waste Cert. E-10365, Alabama Department of Environmental Management Drinking Water #41540. Ana-Lab is also accredited to the international ISO-17025 standard by the American Association for Laboratory Accreditation (A2LA Certificate # 0637-01). The Accredited column designates accreditation by U - UCMR2 (EPA), A -- A2LA, N -- NELAC, or z -- not covered under A2LA or NELAC scope of accreditation.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of Ana-Lab Corp. Unless otherwise specified, these test results meet the requirements of NELAC.
RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number.

C. H. Whiteside, Ph.D., President

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Quality Control

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Report To

Greg Osuna
Alamo Environmental
10843 Gulfdale
San Antonio, TX 78205-

Project 456622

335936 **I** **Liquid Aqueous** **EPA 314.0**

AWRL

Parameter	Reading	Known	Units	Recover%	Limits%	Out	File
Perchlorate	3.74	4.00	ug/L	93.5	75.0 - 125		0011263472
Perchlorate	3.77	4.00	ug/L	94.2	75.0 - 125		0011263473

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	Out	File
Perchlorate	335936	ND	1.06	4.00	ug/L		0011263475

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	Out	File
Perchlorate	105	100	ug/L	105	75.0 - 125		0011263469
Perchlorate	107	100	ug/L	107	75.0 - 125		0011263470
Perchlorate	110	100	ug/L	110	75.0 - 125		0011263488
Perchlorate	25.4	25.0	ug/L	102	75.0 - 125		0011263489
Perchlorate	25.6	25.0	ug/L	102	75.0 - 125		0011263471

MS

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Perchlorate	131887	24.5	24.0	ND	25.0	80.0 - 120	98.0	96.0	ug/L	2.06	20.0
Perchlorate	135847	334		ND	500	80.0 - 120	66.8 *		ug/L		20.0

RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

Phyllis 5126949326

ANA-LAB CORP. THE COMPLETE SERVICE LAB

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Chain of Custody

ALA 4

Panhandle	Oklahoma	North TX	Central TX
806.355.3556	405.292.6630	817.261.6404	512.821.0045
Rio Grand Valley	**Louisiana**	**Gulf Coast**	**Alabama**
956.831.6437	318.219.9300	281.333.9414	256.651.7264

Report to: Greg Osuna
Company name: Alamol
Address: 10843 Gulfdale
City: San Antonio State: TX Zip: 78216
Phone: 210 4041220 Fax:

Project-name/location: LHAAP 19 LFCA Karnack, TX
Billing Address (if different):
City: State: Zip:
Phone: Fax: AR091195

Sampler Signature: [signature] Printed Name: PHYLLIS PRIMROSE Affiliation: RCG PO Number: ~~AR0195~~ [illegible]

Analysis Requested

Lab Number Do Not Use	Field Identification	Date	Time	Matrix	# of Containers	Notes	Perchlorate	Explosives	VOCs
131883	EQB1	9/8/09	0845	Water	4	Refer to Workplan	X	X	
884	Trip Blank	"	N/A		1	for LoRPs			X
885	MW2	"	1640	water	2	unfiltered	X	X	
886	MW2F	"	1645	water	2	filtered	X	X	— call Phyllis/hold
887	EQB2	9/9/05	1045	water	2		X	X	
888	MW3	9/9/05	1245	water	2		X	X	
889	MW3F	9/9/05	1320	water	2	filtered	X	X	— call Phyllis/hold
890	MW1	9/9/05	1815	water	4	unfiltered	X	X	
891	Temp Blank	"	—						

Date	Time	Relinquished by: Printed Name	Signature	Affiliation	Received by: Printed Name	Signature	Affiliation
9/9/9	2030	Phyllis Primrose	[signature]	RCG	Antonio James	[signature]	Ana-lab

☐ Wastewater ☐ Drinking Water ☐ SW846
Samples contain ☐ HF ☐ CN ☐ S= ☐ other##

Samples Received on Ice? ☑ Yes ☐ No Method of Shipment ☐ Bus ☐ FedEX ☐ Lone Star ☐ UPS ☑ Hand delivered ☐ Airborne ☐ other ##comments
Cooler/Sample Secure? ☑ Yes ☐ No Tracking or Shipping Number _____
Requested TAT ☐ Routine ☐ 3 day ☐ 2 Day ☐ 24 Hr. ☐ 2-8 Hour ☐ Samples contain HF CN

Ana-Lab personnel collect samples as specified by Ana-Lab SOP #000323.

003689 ☐
003233 ☐
003532 ☐
003688 ☐

Sample analysis will be provided according to Ana-Lab's Standard Terms and Conditions of Agreement, available upon request and at www.ana-lab.com. Any other terms proposed by Client are deemed material alterations and are rejected unless expressly agreed to in writing by Ana-Lab.

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00122022

APPENDIX 9

WASTE CLASSIFICATION AND DISPOSAL DOCUMENTATION

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November 5, 2009

Greg Osuna
Alamo1
10843 Gulfdale Drive
San Antonio, TX

Re: Classification of Investigation-Derived Waste at LHAAP-19

Per your request, I have classified the investigation-derived waste (IDW) generated during the assessment of the construction and demolition debris landfill located at the Longhorn Army Ammunition Plant (LHAAP). The IDW consists of soil cuttings, purged water, and decon water. I used the existing analytical data for the soil and groundwater samples to classify the IDW. The assumptions used to classify the IDW are:

1) The concentrations detected in the soil samples are representative of the soil cuttings generated and the maximum concentrations detected in the soil samples represent the worst case scenario.
2) The concentrations detected in the groundwater samples are representative of the purge and decon water; and the maximum concentrations detected in groundwater represent the worst case scenario.
3) The method quantitation limits (MQLs) for the non-detected chemicals are less than the regulatory limits for hazardous waste and Class 1 non-hazardous waste.
4) The IDWs do not exhibit the characteristic of ignitability, corrositivity, or reactivity.
5) The IDWs are not derived from a listed hazardous waste.

SOILS

The detected, total concentration for each chemical was compared to the installation-specific background[1] concentrations (minimum and maximum). At least one or more samples exceeded the background concentrations for aluminum, antimony, beryllium, cobalt, copper, lead, magnesium, nickel, potassium, sodium, and zinc. Background concentrations were not available for n-nitrosodi-n-propylamine.

The detected, total concentrations were converted (i.e. divided by 20) to leachate concentrations[2]. Each leachate concentration was then directly compared to the respective concentration for the toxicity characteristic of a hazardous waste[3], the maximum leachable concentration for Class 1 non-hazardous waste[4], and the maximum contaminant level for Class 3[5] waste. The comparison is illustrated in Table 1.

The soil cuttings could be classified as Class 3 except for arsenic (Class 2), barium (Class 2), beryllium (Class 1), chromium (Class 2), and lead (Class 1). Without additional analyses, the soil cuttings should be managed and disposed as Class 1. Your options for disposal are:

---

[1] SHAW. 2004. Final Background Soil Study Report, Longhorn Army Ammunition Plant, Karnack, Texas. July.
[2] EPA. 2009. TCLP Questions. http://www.epa.gov/waste/hazard/testmethods/faq/faq_tclp.htm
[3] 40 CFR Part 261.
[4] 30 TAC Chapter 335 Subchapter R, Appendix 1, Table 1.
[5] 30 TAC Chapter 335, Subchapter R, Appendix 1, Table 3.

1) Dispose soil cuttings off-site at an approved facility.
2) Dispose soil cuttings on-site (at LHAAP-19) (see 335.2(d)) and file a deed recordation in accordance with 30 TAC 335.5. Note: Deed recordation is already required for the C&D landfill. TCEQ must be notified in advance (see 30 TAC 335.2(k) and 30 TAC 335.6).

PURGE AND DECON WATER

Each detected concentration was compared directly to the respective concentrations for background[6] (total not dissolved), the toxicity characteristic of a hazardous waste, the maximum leachable concentration for Class 1 non-hazardous waste, and the maximum contaminant level for Class 3 waste. The comparison is illustrated in Table 2.

The background concentrations for the following chemicals were exceeded in one or more groundwater samples: Barium, cadmium, calcium, mercury, potassium, vanadium, and zinc. Background concentrations were not available for 4-chloro-3-methyl phenol and sodium.

The liquid IDW could be classified as Class 3 except for mercury (Class 2) and cadmium (Class 2). Without additional analyses, the liquid IDW should be classified as Class 2. Your options for disposal are:

1) Dispose liquid IDW off-site at an approved facility.
2) Dispose liquid IDW on-site at the water treatment facility. This option would require prior approval from the USACE and the TCEQ.

Please let me know if you have any questions.

Sincerely,

Phyllis Primrose

Enclosures:

Table 1 – Comparison of Soil Concentrations to Regulatory Concentrations for Hazardous and Non-hazardous Wastes

Table 2 – Comparison of Groundwater Concentrations to Regulatory Concentrations for Hazardous and Non-hazardous Wastes

[6] SHAW. 2007. Final Evaluation of Perimeter Well Data for Use as Groundwater Background, Longhorn Army Ammunition Plan, Karnack, Texas. June.

Table 1 - Comparison of Soil Concentrations to Regulatory Concentrations for Hazardous and Non-Hazardous Wastes

Analyte	SamplD	SampDate	Result (mg/kg)	MinBckgrnd (mg/kg)	Conc < min Bkgrnd?	MaxBkgrnd (mg/kg)	Conc <max Bkgrnd?	Regulatory Limit for Hazardous (mg/L)	Hazardous?	Regulatory Limit Class 1 (mg/L)	Class 1?	Regulatory Limit for Class 3 (mg/L)	Class 3?	Proposed Classification
Aluminum	B3 2-3	8/31/2009	4.15E+04	1.63E+04	no	2.58E+04	no	NA	no	na	no	na	Yes	
Aluminum	B5-1	9/2/2009	3.81E+04	1.63E+04	no	2.58E+04	no	NA	no	na	no	na	Yes	
Aluminum	B2 1-1.5	9/1/2009	3.33E+04	1.63E+04	no	2.58E+04	no	NA	no	na	no	na	Yes	
Aluminum	B8-1	9/2/2009	2.20E+04	1.63E+04	no	2.58E+04	yes	NA	no	na	no	na	Yes	
Aluminum	B4 2-2.5	9/1/2009	2.06E+04	1.63E+04	no	2.58E+04	yes	NA	no	na	no	na	Yes	
Aluminum	B5-2	9/2/2009	2.05E+04	1.63E+04	no	2.58E+04	yes	NA	no	na	no	na	Yes	
Aluminum	B10-1	9/2/2009	2.04E+04	1.63E+04	no	2.58E+04	yes	NA	no	na	no	na	Yes	
Aluminum	B6-2	9/2/2009	1.93E+04	1.63E+04	no	2.58E+04	yes	NA	no	na	no	na	Yes	3
Aluminum	B4 14-14.5	9/1/2009	1.90E+04	1.63E+04	no	2.58E+04	yes	NA	no	na	no	na	Yes	
Aluminum	B6-1	9/2/2009	1.90E+04	1.63E+04	no	2.58E+04	yes	NA	no	na	no	na	Yes	
Aluminum	B2 21-22.5	9/1/2009	1.66E+04	1.63E+04	no	2.58E+04	yes	NA	no	na	no	na	Yes	
Aluminum	B8-2	9/2/2009	1.63E+04	1.63E+04	yes	2.58E+04	yes	NA	no	na	no	na	Yes	
Aluminum	B1 0-1	8/31/2009	1.49E+04	1.63E+04	yes	2.58E+04	yes	NA	no	na	no	na	Yes	
Aluminum	B10-2	9/2/2009	1.30E+04	1.63E+04	yes	2.58E+04	yes	NA	no	na	no	na	Yes	
Aluminum	B3 12-13	8/31/2009	5.88E+03	1.63E+04	yes	2.58E+04	yes	NA	no	na	no	na	Yes	
Antimony	B3 12-13	8/31/2009	9.22E+00	4.68E-01	no	1.60E+00	no	NA	no	1	no	na	Yes	3
Antimony	B6-1	9/2/2009	3.85E+00	4.68E-01	no	1.60E+00	no	NA	no	1	no	na	Yes	
Arsenic	B2 1-1.5	9/1/2009	4.49E+00	2.73E+00	no	6.15E+00	yes	5	no	1.8	no	0.05	no	
Arsenic	B4 14-14.5	9/1/2009	4.39E+00	2.73E+00	no	6.15E+00	yes	5	no	1.8	no	0.05	no	
Arsenic	B6-2	9/2/2009	4.18E+00	2.73E+00	no	6.15E+00	yes	5	no	1.8	no	0.05	no	
Arsenic	B8-1	9/2/2009	3.90E+00	2.73E+00	no	6.15E+00	yes	5	no	1.8	no	0.05	no	2
Arsenic	B1 0-1	8/31/2009	3.66E+00	2.73E+00	no	6.15E+00	yes	5	no	1.8	no	0.05	no	
Arsenic	B3 2-3	8/31/2009	3.39E+00	2.73E+00	no	6.15E+00	yes	5	no	1.8	no	0.05	no	
Arsenic	B4 2-2.5	9/1/2009	3.18E+00	2.73E+00	no	6.15E+00	yes	5	no	1.8	no	0.05	no	
Barium	B5-2	9/2/2009	1.86E+02	5.89E+01	no	2.05E+02	yes	100	no	100	no	1	no	
Barium	B10-1	9/2/2009	1.83E+02	5.89E+01	no	2.05E+02	yes	100	no	100	no	1	no	
Barium	B4 14-14.5	9/1/2009	1.81E+02	5.89E+01	no	2.05E+02	yes	100	no	100	no	1	no	
Barium	B4 2-2.5	9/1/2009	1.62E+02	5.89E+01	no	2.05E+02	yes	100	no	100	no	1	no	
Barium	B5-1	9/2/2009	1.41E+02	5.89E+01	no	2.05E+02	yes	100	no	100	no	1	no	
Barium	B6-1	9/2/2009	1.27E+02	5.89E+01	no	2.05E+02	yes	100	no	100	no	1	no	
Barium	B2 21-22.5	9/1/2009	1.25E+02	5.89E+01	no	2.05E+02	yes	100	no	100	no	1	no	
Barium	B3 2-3	8/31/2009	1.23E+02	5.89E+01	no	2.05E+02	yes	100	no	100	no	1	no	2
Barium	B6-2	9/2/2009	1.13E+02	5.89E+01	no	2.05E+02	yes	100	no	100	no	1	no	
Barium	B1 0-1	8/31/2009	9.85E+01	5.89E+01	no	2.05E+02	yes	100	no	100	no	1	no	
Barium	B2 1-1.5	9/1/2009	9.59E+01	5.89E+01	no	2.05E+02	yes	100	no	100	no	1	no	
Barium	B8-2	9/2/2009	7.27E+01	5.89E+01	no	2.05E+02	yes	100	no	100	no	1	no	
Barium	B8-1	9/2/2009	5.37E+01	5.89E+01	yes	2.05E+02	yes	100	no	100	no	1	no	
Barium	B10-2	9/2/2009	3.73E+01	5.89E+01	yes	2.05E+02	yes	100	no	100	no	1	no	
Barium	B3 12-13	8/31/2009	3.46E+01	5.89E+01	yes	2.05E+02	yes	100	no	100	no	1	no	

Table 1 - Comparison of Soil Concentrations to Regulatory Concentrations for Hazardous and Non-Hazardous Wastes

Analyte	SampID	SampDate	Result (mg/kg)	MinBckgrnd (mg/kg)	Conc < min Bkgrnd?	MaxBkgrnd (mg/kg)	Conc <max Bkgrnd?	Regulatory Limit for Hazardous (mg/L)	Hazardous?	Regulatory Limit Class 1 (mg/L)	Class 1?	Regulatory Limit for Class 3 (mg/L)	Class 3?	Proposed Classification
Beryllium	B6-2	9/2/2009	1.92E+00	4.01E-01	no	8.53E-01	no	na	no	0.08	yes	na	no	
Beryllium	B5-2	9/2/2009	1.24E+00	4.01E-01	no	8.53E-01	no	na	no	0.08	no	na	yes	
Beryllium	B4 14-14.5	9/1/2009	9.27E-01	4.01E-01	no	8.53E-01	no	na	no	0.08	no	na	yes	
Beryllium	B2 21-22.5	9/1/2009	7.67E-01	4.01E-01	no	8.53E-01	yes	na	no	0.08	no	na	yes	
Beryllium	B5-1	9/2/2009	7.61E-01	4.01E-01	no	8.53E-01	yes	na	no	0.08	no	na	yes	
Beryllium	B4 2-2.5	9/1/2009	7.60E-01	4.01E-01	no	8.53E-01	yes	na	no	0.08	no	na	yes	
Beryllium	B8-2	9/2/2009	7.54E-01	4.01E-01	no	8.53E-01	yes	na	no	0.08	no	na	yes	
Beryllium	B10-1	9/2/2009	7.35E-01	4.01E-01	no	8.53E-01	yes	na	no	0.08	no	na	yes	1
Beryllium	B1 0-1	8/31/2009	7.21E-01	4.01E-01	no	8.53E-01	yes	na	no	0.08	no	na	yes	
Beryllium	B6-1	9/2/2009	7.03E-01	4.01E-01	no	8.53E-01	yes	na	no	0.08	no	na	yes	
Beryllium	B3 2-3	8/31/2009	6.36E-01	4.01E-01	no	8.53E-01	yes	na	no	0.08	no	na	yes	
Beryllium	B3 12-13	8/31/2009	6.27E-01	4.01E-01	no	8.53E-01	yes	na	no	0.08	no	na	yes	
Beryllium	B2 1-1.5	9/1/2009	5.71E-01	4.01E-01	no	8.53E-01	yes	na	no	0.08	no	na	yes	
Beryllium	B10-2	9/2/2009	4.60E-01	4.01E-01	no	8.53E-01	yes	na	no	0.08	no	na	yes	
Beryllium	B8-1	9/2/2009	4.23E-01	4.01E-01	no	8.53E-01	yes	na	no	0.08	no	na	yes	
Calcium	B5-2	9/2/2009	2.28E+03	4.73E+02	no	3.15E+03	yes	na	no	na	no	na	yes	
Calcium	B2 21-22.5	9/1/2009	2.18E+03	4.73E+02	no	3.15E+03	yes	na	no	na	no	na	yes	
Calcium	B6-2	9/2/2009	2.02E+03	4.73E+02	no	3.15E+03	yes	na	no	na	no	na	yes	
Calcium	B4 14-14.5	9/1/2009	1.79E+03	4.73E+02	no	3.15E+03	yes	na	no	na	no	na	yes	
Calcium	B5-1	9/2/2009	1.35E+03	4.73E+02	no	3.15E+03	yes	na	no	na	no	na	yes	
Calcium	B10-2	9/2/2009	1.18E+03	4.73E+02	no	3.15E+03	yes	na	no	na	no	na	yes	
Calcium	B6-1	9/2/2009	1.13E+03	4.73E+02	no	3.15E+03	yes	na	no	na	no	na	yes	
Calcium	B8-2	9/2/2009	7.70E+02	4.73E+02	no	3.15E+03	yes	na	no	na	no	na	yes	3
Calcium	B2 1-1.5	9/1/2009	7.25E+02	4.73E+02	no	3.15E+03	yes	na	no	na	no	na	yes	
Calcium	B1 0-1	8/31/2009	6.80E+02	4.73E+02	no	3.15E+03	yes	na	no	na	no	na	yes	
Calcium	B10-1	9/2/2009	6.53E+02	4.73E+02	no	3.15E+03	yes	na	no	na	no	na	yes	
Calcium	B3 12-13	8/31/2009	4.48E+02	4.73E+02	yes	3.15E+03	yes	na	no	na	no	na	yes	
Calcium	B8-1	9/2/2009	3.30E+02	4.73E+02	yes	3.15E+03	yes	na	no	na	no	na	yes	
Calcium	B3 2-3	8/31/2009	2.78E+02	4.73E+02	yes	3.15E+03	yes	na	no	na	no	na	yes	
Calcium	B4 2-2.5	9/1/2009	1.85E+02	4.73E+02	yes	3.15E+03	yes	na	no	na	no	na	yes	
Chromium	B5-2	9/2/2009	3.16E+01	1.33E+01	no	3.86E+01	yes	5	no	5	no	0.1	no	
Chromium	B4 2-2.5	9/1/2009	2.84E+01	1.33E+01	no	3.86E+01	yes	5	no	5	no	0.1	no	
Chromium	B3 2-3	8/31/2009	2.75E+01	1.33E+01	no	3.86E+01	yes	5	no	5	no	0.1	no	
Chromium	B1 0-1	8/31/2009	2.72E+01	1.33E+01	no	3.86E+01	yes	5	no	5	no	0.1	no	
Chromium	B10-1	9/2/2009	2.27E+01	1.33E+01	no	3.86E+01	yes	5	no	5	no	0.1	no	
Chromium	B5-1	9/2/2009	2.22E+01	1.33E+01	no	3.86E+01	yes	5	no	5	no	0.1	no	
Chromium	B2 1-1.5	9/1/2009	2.19E+01	1.33E+01	no	3.86E+01	yes	5	no	5	no	0.1	no	
Chromium	B4 14-14.5	9/1/2009	2.10E+01	1.33E+01	no	3.86E+01	yes	5	no	5	no	0.1	no	2
Chromium	B6-2	9/2/2009	1.91E+01	1.33E+01	no	3.86E+01	yes	5	no	5	no	0.1	no	
Chromium	B6-1	9/2/2009	1.90E+01	1.33E+01	no	3.86E+01	yes	5	no	5	no	0.1	no	
Chromium	B8-1	9/2/2009	1.88E+01	1.33E+01	no	3.86E+01	yes	5	no	5	no	0.1	no	
Chromium	B2 21-22.5	9/1/2009	1.64E+01	1.33E+01	no	3.86E+01	yes	5	no	5	no	0.1	no	
Chromium	B8-2	9/2/2009	1.06E+01	1.33E+01	yes	3.86E+01	yes	5	no	5	no	0.1	no	
Chromium	B10-2	9/2/2009	9.13E+00	1.33E+01	yes	3.86E+01	yes	5	no	5	no	0.1	no	
Chromium	B3 12-13	8/31/2009	8.94E+00	1.33E+01	yes	3.86E+01	yes	5	no	5	no	0.1	no	

Table 1 - Comparison of Soil Concentrations to Regulatory Concentrations for Hazardous and Non-Hazardous Wastes

Analyte	SampID	SampDate	Result (mg/kg)	MinBckgrnd (mg/kg)	Conc < min Bkgrnd?	MaxBkgrnd (mg/kg)	Conc <max Bkgrnd?	Regulatory Limit for Hazardous (mg/L)	Hazardous?	Regulatory Limit Class 1 (mg/L)	Class 1?	Regulatory Limit for Class 3 (mg/L)	Class 3?	Proposed Classification
Cobalt	B8-2	9/2/2009	5.11E+01	3.34E+00	no	8.13E+00	no	na	no	na	no	na	yes	
Cobalt	B2 21-22.5	9/1/2009	2.30E+01	3.34E+00	no	8.13E+00	no	na	no	na	no	na	yes	
Cobalt	B10-2	9/2/2009	2.08E+01	3.34E+00	no	8.13E+00	no	na	no	na	no	na	yes	
Cobalt	B4 14-14.5	9/1/2009	1.47E+01	3.34E+00	no	8.13E+00	no	na	no	na	no	na	yes	
Cobalt	B1 0-1	8/31/2009	1.03E+01	3.34E+00	no	8.13E+00	no	na	no	na	no	na	yes	
Cobalt	B6-2	9/2/2009	9.26E+00	3.34E+00	no	8.13E+00	no	na	no	na	no	na	yes	
Cobalt	B5-2	9/2/2009	7.85E+00	3.34E+00	no	8.13E+00	yes	na	no	na	no	na	yes	
Cobalt	B5-1	9/2/2009	7.79E+00	3.34E+00	no	8.13E+00	yes	na	no	na	no	na	yes	3
Cobalt	B3 12-13	8/31/2009	7.32E+00	3.34E+00	no	8.13E+00	yes	na	no	na	no	na	yes	
Cobalt	B4 2-2.5	9/1/2009	7.16E+00	3.34E+00	no	8.13E+00	yes	na	no	na	no	na	yes	
Cobalt	B6-1	9/2/2009	6.01E+00	3.34E+00	no	8.13E+00	yes	na	no	na	no	na	yes	
Cobalt	B3 2-3	8/31/2009	5.18E+00	3.34E+00	no	8.13E+00	yes	na	no	na	no	na	yes	
Cobalt	B2 1-1.5	9/1/2009	4.54E+00	3.34E+00	no	8.13E+00	yes	na	no	na	no	na	yes	
Cobalt	B10-1	9/2/2009	4.52E+00	3.34E+00	no	8.13E+00	yes	na	no	na	no	na	yes	
Cobalt	B8-1	9/2/2009	3.04E+00	3.34E+00	yes	8.13E+00	yes	na	no	na	no	na	yes	
Copper	B2 21-22.5	9/1/2009	1.33E+01	2.85E+00	no	1.18E+01	no	na	no	na	no	na	yes	
Copper	B6-2	9/2/2009	1.25E+01	2.85E+00	no	1.18E+01	no	na	no	na	no	na	yes	
Copper	B5-2	9/2/2009	1.12E+01	2.85E+00	no	1.18E+01	yes	na	no	na	no	na	yes	
Copper	B4 14-14.5	9/1/2009	1.01E+01	2.85E+00	no	1.18E+01	yes	na	no	na	no	na	yes	
Copper	B6-1	9/2/2009	7.13E+00	2.85E+00	no	1.18E+01	yes	na	no	na	no	na	yes	
Copper	B4 2-2.5	9/1/2009	6.46E+00	2.85E+00	no	1.18E+01	yes	na	no	na	no	na	yes	
Copper	B2 1-1.5	9/1/2009	5.87E+00	2.85E+00	no	1.18E+01	yes	na	no	na	no	na	yes	
Copper	B1 0-1	8/31/2009	5.34E+00	2.85E+00	no	1.18E+01	yes	na	no	na	no	na	yes	3
Copper	B5-1	9/2/2009	4.89E+00	2.85E+00	no	1.18E+01	yes	na	no	na	no	na	yes	
Copper	B3 2-3	8/31/2009	4.65E+00	2.85E+00	no	1.18E+01	yes	na	no	na	no	na	yes	
Copper	B8-2	9/2/2009	4.63E+00	2.85E+00	no	1.18E+01	yes	na	no	na	no	na	yes	
Copper	B10-1	9/2/2009	3.99E+00	2.85E+00	no	1.18E+01	yes	na	no	na	no	na	yes	
Copper	B8-1	9/2/2009	3.37E+00	2.85E+00	no	1.18E+01	yes	na	no	na	no	na	yes	
Copper	B3 12-13	8/31/2009	2.95E+00	2.85E+00	no	1.18E+01	yes	na	no	na	no	na	yes	
Copper	B10-2	9/2/2009	2.62E+00	2.85E+00	yes	1.18E+01	yes	na	no	na	no	na	yes	
Iron	B6-2	9/2/2009	3.77E+04	9.14E+03	no	4.10E+04	yes	na	no	na	no	na	yes	
Iron	B5-2	9/2/2009	3.08E+04	9.14E+03	no	4.10E+04	yes	na	no	na	no	na	yes	
Iron	B4 14-14.5	9/1/2009	2.99E+04	9.14E+03	no	4.10E+04	yes	na	no	na	no	na	yes	
Iron	B4 2-2.5	9/1/2009	2.93E+04	9.14E+03	no	4.10E+04	yes	na	no	na	no	na	yes	
Iron	B3 2-3	8/31/2009	2.89E+04	9.14E+03	no	4.10E+04	yes	na	no	na	no	na	yes	
Iron	B2 1-1.5	9/1/2009	2.79E+04	9.14E+03	no	4.10E+04	yes	na	no	na	no	na	yes	
Iron	B5-1	9/2/2009	2.60E+04	9.14E+03	no	4.10E+04	yes	na	no	na	no	na	yes	
Iron	B8-1	9/2/2009	2.46E+04	9.14E+03	no	4.10E+04	yes	na	no	na	no	na	yes	3
Iron	B10-1	9/2/2009	2.40E+04	9.14E+03	no	4.10E+04	yes	na	no	na	no	na	yes	
Iron	B1 0-1	8/31/2009	2.09E+04	9.14E+03	no	4.10E+04	yes	na	no	na	no	na	yes	
Iron	B2 21-22.5	9/1/2009	1.91E+04	9.14E+03	no	4.10E+04	yes	na	no	na	no	na	yes	
Iron	B8-2	9/2/2009	1.84E+04	9.14E+03	no	4.10E+04	yes	na	no	na	no	na	yes	
Iron	B6-1	9/2/2009	1.59E+04	9.14E+03	no	4.10E+04	yes	na	no	na	no	na	yes	
Iron	B3 12-13	8/31/2009	1.09E+04	9.14E+03	no	4.10E+04	yes	na	no	na	no	na	yes	
Iron	B10-2	9/2/2009	7.57E+03	9.14E+03	yes	4.10E+04	yes	na	no	na	no	na	yes	

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Analyte	SampID	SampDate	Result (mg/kg)	MinBckgrnd (mg/kg)	Conc < min Bkgrnd?	MaxBkgrnd (mg/kg)	Conc <max Bkgrnd?	Regulatory Limit for Hazardous (mg/L)	Hazardous?	Regulatory Limit Class 1 (mg/L)	Class 1?	Regulatory Limit for Class 3 (mg/L)	Class 3?	Proposed Classification
Lead	B2 21-22.5	9/1/2009	3.17E+01	8.32E+00	no	2.76E+01	no	5	no	1.5	yes	0.05	no	
Lead	B8-2	9/2/2009	2.13E+01	8.32E+00	no	2.76E+01	yes	5	no	1.5	no	0.05	no	
Lead	B4 2-2.5	9/1/2009	1.60E+01	8.32E+00	no	2.76E+01	yes	5	no	1.5	no	0.05	no	
Lead	B3 2-3	8/31/2009	1.37E+01	8.32E+00	no	2.76E+01	yes	5	no	1.5	no	0.05	no	
Lead	B1 0-1	8/31/2009	1.36E+01	8.32E+00	no	2.76E+01	yes	5	no	1.5	no	0.05	no	
Lead	B5-1	9/2/2009	1.31E+01	8.32E+00	no	2.76E+01	yes	5	no	1.5	no	0.05	no	
Lead	B6-1	9/2/2009	1.14E+01	8.32E+00	no	2.76E+01	yes	5	no	1.5	no	0.05	no	
Lead	B10-2	9/2/2009	1.03E+01	8.32E+00	no	2.76E+01	yes	5	no	1.5	no	0.05	no	1
Lead	B10-1	9/2/2009	1.00E+01	8.32E+00	no	2.76E+01	yes	5	no	1.5	no	0.05	no	
Lead	B8-1	9/2/2009	1.00E+01	8.32E+00	no	2.76E+01	yes	5	no	1.5	no	0.05	no	
Lead	B2 1-1.5	9/1/2009	9.82E+00	8.32E+00	no	2.76E+01	yes	5	no	1.5	no	0.05	no	
Lead	B6-2	9/2/2009	8.84E+00	8.32E+00	no	2.76E+01	yes	5	no	1.5	no	0.05	no	
Lead	B4 14-14.5	9/1/2009	8.72E+00	8.32E+00	no	2.76E+01	yes	5	no	1.5	no	0.05	no	
Lead	B3 12-13	8/31/2009	4.70E+00	8.32E+00	yes	2.76E+01	yes	5	no	1.5	no	0.05	no	
Lead	B5-2	9/2/2009	4.28E+00	8.32E+00	yes	2.76E+01	yes	5	no	1.5	no	0.05	no	
Magnesium	B5-2	9/2/2009	4.48E+03	2.98E+02	no	2.18E+03	no	na	no	na	no	na	yes	
Magnesium	B5-1	9/2/2009	4.25E+03	2.98E+02	no	2.18E+03	no	na	no	na	no	na	yes	
Magnesium	B4 2-2.5	9/1/2009	3.99E+03	2.98E+02	no	2.18E+03	no	na	no	na	no	na	yes	
Magnesium	B2 21-22.5	9/1/2009	3.42E+03	2.98E+02	no	2.18E+03	no	na	no	na	no	na	yes	
Magnesium	B4 14-14.5	9/1/2009	3.19E+03	2.98E+02	no	2.18E+03	no	na	no	na	no	na	yes	
Magnesium	B6-2	9/2/2009	2.86E+03	2.98E+02	no	2.18E+03	no	na	no	na	no	na	yes	
Magnesium	B3 12-13	8/31/2009	2.18E+03	2.98E+02	no	2.18E+03	yes	na	no	na	no	na	yes	
Magnesium	B3 2-3	8/31/2009	2.14E+03	2.98E+02	no	2.18E+03	yes	na	no	na	no	na	yes	3
Magnesium	B2 1-1.5	9/1/2009	1.95E+03	2.98E+02	no	2.18E+03	yes	na	no	na	no	na	yes	
Magnesium	B6-1	9/2/2009	1.76E+03	2.98E+02	no	2.18E+03	yes	na	no	na	no	na	yes	
Magnesium	B10-1	9/2/2009	1.70E+03	2.98E+02	no	2.18E+03	yes	na	no	na	no	na	yes	
Magnesium	B10-2	9/2/2009	1.29E+03	2.98E+02	no	2.18E+03	yes	na	no	na	no	na	yes	
Magnesium	B8-2	9/2/2009	1.16E+03	2.98E+02	no	2.18E+03	yes	na	no	na	no	na	yes	
Magnesium	B1 0-1	8/31/2009	8.69E+02	2.98E+02	no	2.18E+03	yes	na	no	na	no	na	yes	
Magnesium	B8-1	9/2/2009	8.68E+02	2.98E+02	no	2.18E+03	yes	na	no	na	no	na	yes	
Manganese	B8-2	9/2/2009	1.04E+03	6.84E+01	no	1.82E+03	yes	na	no	na	no	na	yes	
Manganese	B2 21-22.5	9/1/2009	5.34E+02	6.84E+01	no	1.82E+03	yes	na	no	na	no	na	yes	
Manganese	B10-2	9/2/2009	4.64E+02	6.84E+01	no	1.82E+03	yes	na	no	na	no	na	yes	
Manganese	B4 14-14.5	9/1/2009	2.57E+02	6.84E+01	no	1.82E+03	yes	na	no	na	no	na	yes	
Manganese	B1 0-1	8/31/2009	1.79E+02	6.84E+01	no	1.82E+03	yes	na	no	na	no	na	yes	
Manganese	B6-2	9/2/2009	1.63E+02	6.84E+01	no	1.82E+03	yes	na	no	na	no	na	yes	
Manganese	B5-2	9/2/2009	1.17E+02	6.84E+01	no	1.82E+03	yes	na	no	na	no	na	yes	
Manganese	B3 12-13	8/31/2009	8.01E+01	6.84E+01	no	1.82E+03	yes	na	no	na	no	na	yes	3
Manganese	B8-1	9/2/2009	3.67E+01	6.84E+01	yes	1.82E+03	yes	na	no	na	no	na	yes	
Manganese	B10-1	9/2/2009	3.62E+01	6.84E+01	yes	1.82E+03	yes	na	no	na	no	na	yes	
Manganese	B6-1	9/2/2009	3.41E+01	6.84E+01	yes	1.82E+03	yes	na	no	na	no	na	yes	
Manganese	B4 2-2.5	9/1/2009	2.66E+01	6.84E+01	yes	1.82E+03	yes	na	no	na	no	na	yes	
Manganese	B3 2-3	8/31/2009	2.49E+01	6.84E+01	yes	1.82E+03	yes	na	no	na	no	na	yes	
Manganese	B2 1-1.5	9/1/2009	2.40E+01	6.84E+01	yes	1.82E+03	yes	na	no	na	no	na	yes	
Manganese	B5-1	9/2/2009	2.33E+01	6.84E+01	yes	1.82E+03	yes	na	no	na	no	na	yes	

Table 1 - Comparison of Soil Concentrations to Regulatory Concentrations for Hazardous and Non-Hazardous Wastes

Analyte	SampID	SampDate	Result (mg/kg)	MinBckgrnd (mg/kg)	Conc < min Bkgrnd?	MaxBkgrnd (mg/kg)	Conc <max Bkgrnd?	Regulatory Limit for Hazardous (mg/L)	Hazardous?	Regulatory Limit Class 1 (mg/L)	Class 1?	Regulatory Limit for Class 3 (mg/L)	Class 3?	Proposed Classification
Nickel	B4 14-14.5	9/1/2009	3.74E+01	3.93E+00	no	1.52E+01	no	na	no	70	no	na	yes	
Nickel	B6-2	9/2/2009	3.12E+01	3.93E+00	no	1.52E+01	no	na	no	70	no	na	yes	
Nickel	B5-2	9/2/2009	2.95E+01	3.93E+00	no	1.52E+01	no	na	no	70	no	na	yes	
Nickel	B2 21-22.5	9/1/2009	2.09E+01	3.93E+00	no	1.52E+01	no	na	no	70	no	na	yes	
Nickel	B8-2	9/2/2009	1.50E+01	3.93E+00	no	1.52E+01	yes	na	no	70	no	na	yes	
Nickel	B2 1-1.5	9/1/2009	1.31E+01	3.93E+00	no	1.52E+01	yes	na	no	70	no	na	yes	
Nickel	B5-1	9/2/2009	1.22E+01	3.93E+00	no	1.52E+01	yes	na	no	70	no	na	yes	
Nickel	B3 2-3	8/31/2009	1.11E+01	3.93E+00	no	1.52E+01	yes	na	no	70	no	na	yes	3
Nickel	B4 2-2.5	9/1/2009	1.05E+01	3.93E+00	no	1.52E+01	yes	na	no	70	no	na	yes	
Nickel	B10-1	9/2/2009	9.60E+00	3.93E+00	no	1.52E+01	yes	na	no	70	no	na	yes	
Nickel	B6-1	9/2/2009	8.76E+00	3.93E+00	no	1.52E+01	yes	na	no	70	no	na	yes	
Nickel	B1 0-1	8/31/2009	7.93E+00	3.93E+00	no	1.52E+01	yes	na	no	70	no	na	yes	
Nickel	B3 12-13	8/31/2009	7.58E+00	3.93E+00	no	1.52E+01	yes	na	no	70	no	na	yes	
Nickel	B10-2	9/2/2009	7.34E+00	3.93E+00	no	1.52E+01	yes	na	no	70	no	na	yes	
Nickel	B8-1	9/2/2009	7.18E+00	3.93E+00	no	1.52E+01	yes	na	no	70	no	na	yes	
N-Nitrosodi-n-propylamine	B1 0-1	8/31/2009	5.51E-01	na	yes	na	na	na	no	70	no	na	yes	
N-Nitrosodi-n-propylamine	B5-1	9/2/2009	5.34E-01	na	yes	na	na	na	no	70	no	na	yes	
N-Nitrosodi-n-propylamine	B5-2	9/2/2009	4.95E-01	na	yes	na	na	na	no	70	no	na	yes	3
N-Nitrosodi-n-propylamine	B2 1-1.5	9/1/2009	4.90E-01	na	yes	na	na	na	no	70	no	na	yes	
N-Nitrosodi-n-propylamine	B2 21-22.5	9/1/2009	4.51E-01	na	yes	na	na	na	no	70	no	na	yes	
N-Nitrosodi-n-propylamine	B4 2-2.5	9/1/2009	4.01E-01	na	yes	na	na	na	no	70	no	na	yes	
Potassium	B5-1	9/2/2009	2.53E+03	2.00E+02	no	4.95E+02	no	na	no	na	no	na	yes	
Potassium	B3 12-13	8/31/2009	2.31E+03	2.00E+02	no	4.95E+02	no	na	no	na	no	na	yes	
Potassium	B3 2-3	8/31/2009	1.83E+03	2.00E+02	no	4.95E+02	no	na	no	na	no	na	yes	
Potassium	B2 21-22.5	9/1/2009	1.57E+03	2.00E+02	no	4.95E+02	no	na	no	na	no	na	yes	
Potassium	B2 1-1.5	9/1/2009	1.36E+03	2.00E+02	no	4.95E+02	no	na	no	na	no	na	yes	
Potassium	B6-1	9/2/2009	1.17E+03	2.00E+02	no	4.95E+02	no	na	no	na	no	na	yes	
Potassium	B5-2	9/2/2009	1.11E+03	2.00E+02	no	4.95E+02	no	na	no	na	no	na	yes	
Potassium	B1 0-1	8/31/2009	1.09E+03	2.00E+02	no	4.95E+02	no	na	no	na	no	na	yes	3
Potassium	B6-2	9/2/2009	1.03E+03	2.00E+02	no	4.95E+02	no	na	no	na	no	na	yes	
Potassium	B10-1	9/2/2009	9.63E+02	2.00E+02	no	4.95E+02	no	na	no	na	no	na	yes	
Potassium	B8-1	9/2/2009	7.96E+02	2.00E+02	no	4.95E+02	no	na	no	na	no	na	yes	
Potassium	B10-2	9/2/2009	7.20E+02	2.00E+02	no	4.95E+02	no	na	no	na	no	na	yes	
Potassium	B4 14-14.5	9/1/2009	6.96E+02	2.00E+02	no	4.95E+02	no	na	no	na	no	na	yes	
Potassium	B8-2	9/2/2009	6.93E+02	2.00E+02	no	4.95E+02	no	na	no	na	no	na	yes	
Potassium	B4 2-2.5	9/1/2009	4.74E+01	2.00E+02	yes	4.95E+02	yes	na	no	na	no	na	yes	
Sodium	B2 21-22.5	9/1/2009	9.17E+02	2.43E+01	no	1.91E+02	no	na	no	na	no	na	yes	
Sodium	B5-2	9/2/2009	7.58E+02	2.43E+01	no	1.91E+02	no	na	no	na	no	na	yes	
Sodium	B4 14-14.5	9/1/2009	7.24E+02	2.43E+01	no	1.91E+02	no	na	no	na	no	na	yes	
Sodium	B10-2	9/2/2009	6.39E+02	2.43E+01	no	1.91E+02	no	na	no	na	no	na	yes	
Sodium	B6-2	9/2/2009	5.43E+02	2.43E+01	no	1.91E+02	no	na	no	na	no	na	yes	
Sodium	B8-2	9/2/2009	4.37E+02	2.43E+01	no	1.91E+02	no	na	no	na	no	na	yes	
Sodium	B10-1	9/2/2009	3.08E+02	2.43E+01	no	1.91E+02	no	na	no	na	no	na	yes	3
Sodium	B5-1	9/2/2009	2.92E+02	2.43E+01	no	1.91E+02	no	na	no	na	no	na	yes	
Sodium	B3 12-13	8/31/2009	2.52E+02	2.43E+01	no	1.91E+02	no	na	no	na	no	na	yes	
Sodium	B4 2-2.5	9/1/2009	2.21E+02	2.43E+01	no	1.91E+02	no	na	no	na	no	na	yes	
Sodium	B3 2-3	8/31/2009	1.70E+02	2.43E+01	no	1.91E+02	yes	na	no	na	no	na	yes	
Sodium	B6-1	9/2/2009	1.02E+02	2.43E+01	no	1.91E+02	yes	na	no	na	no	na	yes	
Sodium	B2 1-1.5	9/1/2009	9.45E+01	2.43E+01	no	1.91E+02	yes	na	no	na	no	na	yes	
Sodium	B1 0-1	8/31/2009	6.85E+01	2.43E+01	no	1.91E+02	yes	na	no	na	no	na	yes	

Table 1 - Comparison of Soil Concentrations to Regulatory Concentrations for Hazardous and Non-Hazardous Wastes

Analyte	SampID	SampDate	Result (mg/kg)	MinBckgrnd (mg/kg)	Conc < min Bkgrnd?	MaxBkgrnd (mg/kg)	Conc <max Bkgrnd?	Regulatory Limit for Hazardous (mg/L)	Hazardous?	Regulatory Limit Class 1 (mg/L)	Class 1?	Regulatory Limit for Class 3 (mg/L)	Class 3?	Proposed Classification
Vanadium	B3 2-3	8/31/2009	4.32E+01	1.86E+01	no	5.00E+01	yes	na	no	na	no	na	yes	
Vanadium	B8-1	9/2/2009	3.95E+01	1.86E+01	no	5.00E+01	yes	na	no	na	no	na	yes	
Vanadium	B5-1	9/2/2009	3.47E+01	1.86E+01	no	5.00E+01	yes	na	no	na	no	na	yes	
Vanadium	B6-2	9/2/2009	3.22E+01	1.86E+01	no	5.00E+01	yes	na	no	na	no	na	yes	
Vanadium	B2 1-1.5	9/1/2009	3.12E+01	1.86E+01	no	5.00E+01	yes	na	no	na	no	na	yes	
Vanadium	B10-1	9/2/2009	3.09E+01	1.86E+01	no	5.00E+01	yes	na	no	na	no	na	yes	
Vanadium	B2 21-22.5	9/1/2009	2.87E+01	1.86E+01	no	5.00E+01	yes	na	no	na	no	na	yes	3
Vanadium	B6-1	9/2/2009	2.49E+01	1.86E+01	no	5.00E+01	yes	na	no	na	no	na	yes	
Vanadium	B5-2	9/2/2009	2.42E+01	1.86E+01	no	5.00E+01	yes	na	no	na	no	na	yes	
Vanadium	B8-2	9/2/2009	2.08E+01	1.86E+01	no	5.00E+01	yes	na	no	na	no	na	yes	
Vanadium	B4 14-14.5	9/1/2009	1.83E+01	1.86E+01	yes	5.00E+01	yes	na	no	na	no	na	yes	
Vanadium	B1 0-1	8/31/2009	1.66E+01	1.86E+01	yes	5.00E+01	yes	na	no	na	no	na	yes	
Vanadium	B10-2	9/2/2009	8.77E+00	1.86E+01	yes	5.00E+01	yes	na	no	na	no	na	yes	
Zinc	B2 21-22.5	9/1/2009	6.44E+01	1.22E+01	no	6.16E+01	no	na	no	na	no	na	yes	
Zinc	B6-2	9/2/2009	6.22E+01	1.22E+01	no	6.16E+01	no	na	no	na	no	na	yes	
Zinc	B5-2	9/2/2009	5.84E+01	1.22E+01	no	6.16E+01	yes	na	no	na	no	na	yes	
Zinc	B4 14-14.5	9/1/2009	5.04E+01	1.22E+01	no	6.16E+01	yes	na	no	na	no	na	yes	
Zinc	B4 2-2.5	9/1/2009	4.44E+01	1.22E+01	no	6.16E+01	yes	na	no	na	no	na	yes	
Zinc	B2 1-1.5	9/1/2009	3.97E+01	1.22E+01	no	6.16E+01	yes	na	no	na	no	na	yes	
Zinc	B3 2-3	8/31/2009	3.51E+01	1.22E+01	no	6.16E+01	yes	na	no	na	no	na	yes	
Zinc	B5-1	9/2/2009	3.38E+01	1.22E+01	no	6.16E+01	yes	na	no	na	no	na	yes	3
Zinc	B10-1	9/2/2009	3.33E+01	1.22E+01	no	6.16E+01	yes	na	no	na	no	na	yes	
Zinc	B6-1	9/2/2009	2.83E+01	1.22E+01	no	6.16E+01	yes	na	no	na	no	na	yes	
Zinc	B1 0-1	8/31/2009	2.40E+01	1.22E+01	no	6.16E+01	yes	na	no	na	no	na	yes	
Zinc	B8-2	9/2/2009	2.35E+01	1.22E+01	no	6.16E+01	yes	na	no	na	no	na	yes	
Zinc	B10-2	9/2/2009	1.96E+01	1.22E+01	no	6.16E+01	yes	na	no	na	no	na	yes	
Zinc	B8-1	9/2/2009	1.89E+01	1.22E+01	no	6.16E+01	yes	na	no	na	no	na	yes	
Zinc	B3 12-13	8/31/2009	1.73E+01	1.22E+01	no	6.16E+01	yes	na	no	na	no	na	yes	

Table 2 - Groundwater Concentrations Compared to Regulatory Concentrations for Hazardous and Non-Hazardous Wastes

Analyte	Result (mg/L)	SampID	SampDate	Min Bkgrnd (mg/L)	> Min bkgrnd	Max Bkgrnd (mg/L)	> Max bkgrnd	Regulatory Limit for Hazardous	Hazardous?	Regulatory Limit for Class 1	Class 1?	Regulatory Limit for Class 3	Class 3?	Proposed Classification?
4-Chloro-3-methylphenol	1.36E-03	MW3F	9/9/2009	na	na	na	na	na	no	7000	no	na		3
Aluminum	5.00E-01	MW2	9/8/2009	7.16E-01	no	2.68	no	na	no	na	no			3
Aluminum	1.30E-01	MW3	9/9/2009	7.16E-01	no	2.68	no							
Barium	1.44E-01	MW2	9/8/2009	6.07E-02	yes	0.128	yes	100	no	100	no	1	yes	3
Barium	1.34E-01	MW2F	9/8/2009	6.07E-02	yes	0.128	yes					1	yes	
Barium	9.50E-02	MW3	9/9/2009	6.07E-02	yes	0.128	no					1	yes	
Barium	9.20E-02	MW1	9/9/2009	6.07E-02	yes	0.128	no					1	yes	
Barium	8.60E-02	MW3F	9/9/2009	6.07E-02	yes	0.128	no					1	yes	
Cadmium	6.00E-03	MW2	9/8/2009	8.67E-04	yes	0.00229	yes	1	no	0.5	no	0.005	no	2
Calcium	4.10E+02	MW2	9/8/2009	2.04E+02	yes	302	yes	na	no	na	no			3
Calcium	4.02E+02	MW2F	9/8/2009	2.04E+02	yes	302	yes							
Calcium	3.30E+02	MW1	9/9/2009	2.04E+02	yes	302	yes							
Calcium	3.04E+02	MW3	9/9/2009	2.04E+02	yes	302	yes							
Calcium	2.54E+02	MW3F	9/9/2009	2.04E+02	yes	302	no							
Calcium	5.00E-01	EQB1	9/8/2009	2.04E+02	no	302	no							
Calcium	4.00E-01	EQB2	9/9/2009	2.04E+02	no	302	no							
Iron	7.30E-01	MW3	9/9/2009	8.87E-01	no	4.01	no	na	no	na	no			3
Iron	7.10E-01	MW2	9/8/2009	8.87E-01	no	4.01	no							
Iron	7.00E-02	MW3F	9/9/2009	8.87E-01	no	4.01	no							
Magnesium	2.46E+02	MW2	9/8/2009	2.19E+02	yes	462	no	na	no	na	no			3
Magnesium	2.42E+02	MW2F	9/8/2009	2.19E+02	yes	462	no							
Magnesium	2.29E+02	MW1	9/9/2009	2.19E+02	yes	462	no							
Magnesium	1.99E+02	MW3	9/9/2009	2.19E+02	no	462	no							
Magnesium	1.67E+02	MW3F	9/9/2009	2.19E+02	no	462	no							
Magnesium	2.00E-01	EQB1	9/8/2009	2.19E+02	no	462	no							
Manganese	2.65E-01	MW3	9/9/2009	3.81E+00	no	7.82	no	na	no	na	no			3
Manganese	1.93E-01	MW3F	9/9/2009	3.81E+00	no	7.82	no							
Manganese	1.19E-01	MW2	9/8/2009	3.81E+00	no	7.82	no							
Manganese	9.20E-02	MW2F	9/8/2009	3.81E+00	no	7.82	no							
Manganese	2.10E-02	MW1	9/9/2009	3.81E+00	no	7.82	no							
Mercury	4.80E-03	MW2	9/8/2009	5.21E-05	yes	0.0000793	yes	0.2	no	0.2	no	0.002	no	2
Mercury	1.50E-03	MW2F	9/8/2009	5.21E-05	yes	0.0000793	yes					0.002	yes	
Potassium	3.67E+01	MW2	9/8/2009	2.19E+00	yes	2.74	yes	na	no	na	no			3
Potassium	2.52E+01	MW2F	9/8/2009	2.19E+00	yes	2.74	yes							
Potassium	1.68E+01	MW3	9/9/2009	2.19E+00	yes	2.74	yes							
Potassium	1.66E+01	MW3F	9/9/2009	2.19E+00	yes	2.74	yes							
Potassium	1.39E+01	MW1	9/9/2009	2.19E+00	yes	2.74	yes							
Potassium	1.43E+00	EQB1	9/8/2009	2.19E+00	no	2.74	no							
Potassium	9.50E-01	EQB2	9/9/2009	2.19E+00	no	2.74	no							
Sodium	1.12E+03	MW2F	9/8/2009	na	na	na	na	na	no		no			3
Sodium	1.11E+03	MW2	9/8/2009	na	na	na	na							
Sodium	8.00E+02	MW1	9/9/2009	na	na	na	na							
Sodium	7.05E+02	MW3	9/9/2009	na	na	na	na							
Sodium	6.64E+02	MW3F	9/9/2009	na	na	na	na							
Sodium	9.49E+00	EQB2	9/9/2009	na	na	na	na							
Vanadium	5.00E-02	EQB2	9/9/2009	1.66E-03	yes	0.00399	yes	na	no	na	no			3
Zinc	4.90E-01	MW3	9/9/2009	1.44E-02	yes	0.0302	yes	na	no	na	no			3

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH406925

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *TXCESQG* GENERATOR NAME: *US Army Corps of Engineers*

GENERATOR CODE (Assigned by Clean Harbors) *LO1516* CITY *Tulsa* STATE/PROVINCE *OK* ZIP/POSTAL CODE *74128*

ADDRESS *1645 S. 101 E. Avenue Att.* PHONE: (210) 404-1220

CUSTOMER CODE (Assigned by Clean Harbors) *AL3791* CUSTOMER NAME: *Alamo1*

ADDRESS *10843 Gulfdale* CITY *San Antonio* STATE/PROVINCE *TX* ZIP/POSTAL CODE *78216*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *Soil Cuttings*

PROCESS GENERATING WASTE (Please provide detailed description of process generating waste):

Soil cuttings from drilling monitoring wells.

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- [x] SOLID WITHOUT FREE LIQUID
- POWDER
- MONOLITHIC SOLID
- LIQUID WITH NO SOLIDS
- LIQUID/SOLID MIXTURE
  - % FREE LIQUID
  - % SETTLED SOLID
  - % TOTAL SUSPENDED SOLID
- SLUDGE
- GAS/AEROSOL

NUMBER OF PHASES/LAYERS: 1 2 3

% BY VOLUME (Approx.): TOP *0.00*, MIDDLE *0.00*, BOTTOM *0.00*

VISCOSITY (If liquid present)
- 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR: *Brown*

ODOR
- [x] NONE
- MILD
- STRONG

Describe:

BOILING POINT °F (°C)
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- [x] > 200 (>93)

TOTAL ORGANIC CARBON
- [x] <= 1%
- 1-9%
- >= 10%

FLASH POINT °F (°C)
- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- > 200 (>93)

pH
- <= 2
- 2.1 - 6.9
- [x] 7 (Neutral)
- 7.1 - 12.4
- >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g. Ethanol)
- 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- [x] > 1.2 (e.g. Methylene Chloride)

ASH
- < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- [x] Unknown

BTU/LB (MJ/kg)
- [x] < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
SOIL CUTTINGS	100.0000000	--	100.0000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES [x] NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE: *G49* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE: *W403*

CleanHarbors

Clean Harbors Profile No. CH406925

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge ☑ Testing

If based on knowledge, please describe the rationale applied to identify and characterize the waste material (ex., include reference to Material Safety Data Sheets, process considerations, operating procedures).

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0				☑
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑

	VOLATILE COMPOUNDS	
D018	BENZENE	0.5
D019	CARBON TETRACHLORIDE	0.5
D021	CHLOROBENZENE	100.0
D022	CHLOROFORM	6.0
D028	1,2-DICHLOROETHANE	0.5
D029	1,1-DICHLOROETHYLENE	0.7
D035	METHYL ETHYL KETONE	200.0
D039	TETRACHLOROETHYLENE	0.7
D040	TRICHLOROETHYLENE	0.5
D043	VINYL CHLORIDE	0.2
	SEMI-VOLATILE COMPOUNDS	
D023	o-CRESOL	200.0
D024	m-CRESOL	200.0
D025	p-CRESOL	200.0
D026	CRESOL (TOTAL)	200.0
D027	1,4-DICHLOROBENZENE	7.5
D030	2,4-DINITROTOLUENE	0.13
D032	HEXACHLOROBENZENE	0.13
D033	HEXACHLOROBUTADIENE	0.5
D034	HEXACHLOROETHANE	3.0
D036	NITROBENZENE	2.0
D037	PENTACHLOROPHENOL	100.0
D038	PYRIDINE	5.0
D041	2,4,5-TRICHLOROPHENOL	400.0
D042	2,4,6-TRICHLOROPHENOL	2.0
	PESTICIDES AND HERBICIDES	
D012	ENDRIN	0.02
D013	LINDANE	0.4
D014	METHOXYCHLOR	10.0
D015	TOXAPHENE	0.5
D016	2,4-D	10.0
D017	2,4,5-TP (SILVEX)	1.0
D020	CHLORDANE	0.03
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE
< 1000 PPM
>= 1000 PPM

PCBs

☑ NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCE	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

CleanHarbors

Clean Harbors Profile No. CH406925

F. REGULATORY STATUS

YES ☑ NO USEPA HAZARDOUS WASTE?

YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES ☑ NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: ***Not subject to LDR***
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

☑ YES NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NONE, NON HAZARDOUS, NON D.O.T. REGULATED, N/A

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ☑ ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER

☑ CONTAINERIZED

7-8 CONTAINERS/SHIPMENT

STORAGE CAPACITY:
CONTAINER TYPE:

CUBIC YARD BOX PALLET

TOTE TANK ☑ DRUM

OTHER:

DRUM SIZE: ***55***

BULK LIQUID

GALLONS/SHIPMENT: ***0 Min -0 Max*** GAL.

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: ***0 Min - 0 Max***

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:
Code - CNO

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE

This waste profile has been submitted using Clean Harbors' electronic signature system.

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH406924

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *TXCESQG* GENERATOR NAME: *US Army Corps of Engineers*

GENERATOR CODE (Assigned by Clean Harbors) *LO1516* CITY *Tulsa* STATE/PROVINCE *OK* ZIP/POSTAL CODE *74128*

ADDRESS *1645 S. 101 E. Avenue Att.* PHONE: (210) 404-1220

CUSTOMER CODE (Assigned by Clean Harbors) *AL3791* CUSTOMER NAME: *Alamo1*

ADDRESS *10843 Gulfdale* CITY *San Antonio* STATE/PROVINCE *TX* ZIP/POSTAL CODE *78216*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *Purged Water*

PROCESS GENERATING WASTE (Please provide detailed description of process generating waste):

Purged water from monitoring wells.

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- SOLID WITHOUT FREE LIQUID
- POWDER
- MONOLITHIC SOLID
- [x] LIQUID WITH NO SOLIDS
- LIQUID/SOLID MIXTURE
  - % FREE LIQUID
  - % SETTLED SOLID
  - % TOTAL SUSPENDED SOLID
- SLUDGE
- GAS/AEROSOL

NUMBER OF PHASES/LAYERS
- [x] 1 2 3

% BY VOLUME (Approx.)

TOP	0.00
MIDDLE	0.00
BOTTOM	0.00

VISCOSITY (If liquid present)
- [x] 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR
Brown

ODOR
- [x] NONE
- MILD
- STRONG

Describe:

BOILING POINT °F (°C)
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- [x] >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- > 200 (>93)

TOTAL ORGANIC CARBON
- [x] <= 1%
- 1-9%
- >= 10%

FLASH POINT °F (°C)
- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- [x] > 200 (>93)

pH
- <= 2
- 2.1 - 6.9
- [x] 7 (Neutral)
- 7.1 - 12.4
- >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g. Ethanol)
- [x] 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- > 1.2 (e.g. Methylene Chloride)

ASH
- < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- [x] Unknown

BTU/LB (MJ/kg)
- [x] < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
GROUND WATER	100.0000000	--	100.0000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G19* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W101*

CleanHarbors

Clean Harbors Profile No. CH406924

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge ☑ Testing

If based on knowledge, please describe the rationale applied to identify and characterize the waste material (ex., include reference to Material Safety Data Sheets, process considerations, operating procedures).

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0				☑
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5				
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE
< 1000 PPM
>= 1000 PPM

PCBs

☑ NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCE	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

Clean Harbors Profile No. CH406924

F. REGULATORY STATUS

YES ☑ NO USEPA HAZARDOUS WASTE?

YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code ***CESQ1011***

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES ☑ NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: ***Not subject to LDR***
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

☑ YES NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NONE, NON DOT REGULATED, NONE

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ☑ ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER

☑ **CONTAINERIZED**

2-3 CONTAINERS/SHIPMENT

STORAGE CAPACITY:
CONTAINER TYPE:

CUBIC YARD BOX PALLET
TOTE TANK ☑ DRUM
OTHER: DRUM SIZE: ***55***

BULK LIQUID

GALLONS/SHIPMENT: ***0 Min -0 Max*** GAL

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: ***0 Min - 0 Max***

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:
Alamo1 will transport drums to Clean Harbor facility.

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE

This waste profile has been submitted using Clean Harbors' electronic signature system.

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH394273

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *TXCESQG* GENERATOR NAME: *US Army Corps of Engineers*

GENERATOR CODE (Assigned by Clean Harbors) *LO1516* CITY *Tulsa* STATE/PROVINCE *OK* ZIP/POSTAL CODE *74128*

ADDRESS *1645 S. 101 E. Avenue Att.* PHONE: (210) 404-1220

CUSTOMER CODE (Assigned by Clean Harbors) *AL3791* CUSTOMER NAME: *Alamo1*

ADDRESS *10843 Gulfdale* CITY *San Antonio* STATE/PROVINCE *TX* ZIP/POSTAL CODE *78216*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *Rags, Wipes, PPE*

PROCESS GENERATING WASTE (Please provide detailed description of process generating waste):

Rags, Wipes, PPE generated from various non-haz activites.

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- [x] SOLID WITHOUT FREE LIQUID
- POWDER
- MONOLITHIC SOLID
- LIQUID WITH NO SOLIDS
- LIQUID/SOLID MIXTURE
  - % FREE LIQUID
  - % SETTLED SOLID
  - % TOTAL SUSPENDED SOLID
- SLUDGE
- GAS/AEROSOL

NUMBER OF PHASES/LAYERS: 1 2 3

% BY VOLUME (Approx.): TOP *0.00*, MIDDLE *0.00*, BOTTOM *0.00*

VISCOSITY (If liquid present)
- 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR: *Various*

ODOR
- [x] NONE
- MILD
- STRONG

Describe:

BOILING POINT °F (°C)
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- [x] > 200 (>93)

TOTAL ORGANIC CARBON
- <= 1%
- 1-9%
- [x] >= 10%

FLASH POINT °F (°C)
- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- > 200 (>93)

pH
- <= 2
- 2.1 - 6.9
- [x] 7 (Neutral)
- 7.1 - 12.4
- >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g. Ethanol)
- 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- [x] > 1.2 (e.g. Methylene Chloride)

ASH
- < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- [x] Unknown

BTU/LB (MJ/kg)
- [x] < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
RAGS, WIPES, PPE	100.0000000	--	100.0000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES [x] NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G07* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W409*

CleanHarbors

Clean Harbors Profile No. CH394273

E. CONSTITUENTS

Are these values based on testing or knowledge? ☑ Knowledge Testing

If based on knowledge, please describe the rationale applied to identify and characterize the waste material (ex., include reference to Material Safety Data Sheets, process considerations, operating procedures).

Generator Knowledge

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0				☑
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑

	VOLATILE COMPOUNDS	
D018	BENZENE	0.5
D019	CARBON TETRACHLORIDE	0.5
D021	CHLOROBENZENE	100.0
D022	CHLOROFORM	6.0
D028	1,2-DICHLOROETHANE	0.5
D029	1,1-DICHLOROETHYLENE	0.7
D035	METHYL ETHYL KETONE	200.0
D039	TETRACHLOROETHYLENE	0.7
D040	TRICHLOROETHYLENE	0.5
D043	VINYL CHLORIDE	0.2
	SEMI-VOLATILE COMPOUNDS	
D023	o-CRESOL	200.0
D024	m-CRESOL	200.0
D025	p-CRESOL	200.0
D026	CRESOL (TOTAL)	200.0
D027	1,4-DICHLOROBENZENE	7.5
D030	2,4-DINITROTOLUENE	0.13
D032	HEXACHLOROBENZENE	0.13
D033	HEXACHLOROBUTADIENE	0.5
D034	HEXACHLOROETHANE	3.0
D036	NITROBENZENE	2.0
D037	PENTACHLOROPHENOL	100.0
D038	PYRIDINE	5.0
D041	2,4,5-TRICHLOROPHENOL	400.0
D042	2,4,6-TRICHLOROPHENOL	2.0
	PESTICIDES AND HERBICIDES	
D012	ENDRIN	0.02
D013	LINDANE	0.4
D014	METHOXYCHLOR	10.0
D015	TOXAPHENE	0.5
D016	2,4-D	10.0
D017	2,4,5-TP (SILVEX)	1.0
D020	CHLORDANE	0.03
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE
< 1000 PPM
>= 1000 PPM

PCBs

☑ NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCE	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

Clean Harbors Profile No. CH394273

F. REGULATORY STATUS

YES ☑ NO USEPA HAZARDOUS WASTE?

YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code ***CESQ2191***

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES ☑ NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: ***Not subject to LDR***
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

☑ YES NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES ☑ NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NONE, NON DOT REGULATED MATERIAL, N/A

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ☑ ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER

☑ **CONTAINERIZED**

1-5 CONTAINERS/SHIPMENT

STORAGE CAPACITY: ***5***
CONTAINER TYPE:

CUBIC YARD BOX PALLET

TOTE TANK ☑ DRUM

OTHER:

DRUM SIZE: ***55***

BULK LIQUID

GALLONS/SHIPMENT: ***0 Min -0 Max*** GAL

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: ***0 Min - 0 Max***

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:
CNO Pricing

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE

This waste profile has been submitted using Clean Harbors' electronic signature system

00122043

7T 2645314

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: TXCEQG
2. Page 1 of 1 of 2
3. Emergency Response Phone: 210-404-1220
4. Manifest Tracking Number: 005393535 JJK

5. Generator's Name and Mailing Address: US Army Corps Engineers Attn: David Jones, 1645 S. 101 E. Avenue, Tulsa, OK 74128
Generator's Site Address (if different than mailing address): Longhorn Army Ammunitation, 15600 Highway 43, Karnack, TX 75661
Generator's Phone:

6. Transporter 1 Company Name: Alamo1 — U.S. EPA ID Number: TXD987991866

7. Transporter 2 Company Name: Clean Harbors Environmental Services — U.S. EPA ID Number: MAD039372250

8. Designated Facility Name and Site Address: Clean Harbors, 2027 Independence Pkwy S., La Prote, TX 77571 — U.S. EPA ID Number: TXD055141378
Facility's Phone:

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
1	1. None, Non DOT Regulated Material, N/A Rage, Wipes, PPE	001	DM	~~00055~~ 50	GE P	CESQ	2191	None
2	2. None, Non DOT Regulated, None Purged Water	003	DM	~~00055~~ 600	GE P	CESQ	1011	None
3	3. None, Non Hazardous, Non D.O.T. Regulated, N/A Soil Cuttings	~~001~~ 004	~~DM~~	~~00055~~ 3000	GE P	None	OUTS	4091
4	4. None, Non Hazardous, Non D.O.T. Regulated, N/A Soil Cuttings	003	DF	1500	P	None	OUTS	4091

14. Special Handling Instructions and Additional Information
1) CH394273 1455 2) CH406924 3455 3) CH406925 4455 4) CH406925 3455
Sales Order: 7T2645314

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: David Jones — Signature: [signature] — Month 01 Day 07 Year 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Gregorio Espinoza — Signature: [signature] — Month 01 Day 07 Year 10
Transporter 2 Printed/Typed Name: Kenath Frame — Signature: [signature] — Month 01 Day 08 Year 10

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. H040 3. H040 4. H040

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Kim Bravenec — Signature: [signature] — Month 01 Day 20 Year 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: TXCGQG

22. Page: 2/2

23. Manifest Tracking Number: 005393535JJK

24. Generator's Name: US Army Corp.

25. Transporter 3 Company Name: Clean Harbors Env. Inc. U.S. EPA ID Number: MAD039322250

26. Transporter 4 Company Name: U.S. EPA ID Number:

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes

GENERATOR

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: Kenneth Brown Signature: Kenneth Brown Month 1 Day 14 Year 10

34. Transporter 4 Acknowledgment of Receipt of Materials

Printed/Typed Name: Jennifer Kolb Signature: Jennifer Kolb Month 01 Day 14 Year 10

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

7.0 PROCESS KNOWLEDGE CERTIFICATION AND SUPPORTING DOCUMENTATION

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CERTIFICATION OF PROCESS KNOWLEDGE

STATE OF TEXAS
HARRISON COUNTY

INDUSTRIAL SOLID WASTE
CLASS 2 CERTIFICATION

I, Rose M. Zeiler, certify the Industrial Solid Waste deposited in the C&D Landfill to be classified as Class 2 Non-Hazardous based on process knowledge (described in the attached deed recordation), interviews with former employees covering the late 1990s through 2005, records of disposal activities related to the landfill since 2003, personal observation of waste disposal activities 2005 through 2006, and the description of the waste documented in the NOR (provided below).

From the NOR:

> "From the landfill evaluation dated 1988, and the buildings description dated 2004, it is concluded that all of the materials deposited in this landfill were what is normally classified as Construction and Demolition Debris (C&D) consisting of wood and metal studs, corrugated metal walls and roofs, concrete rubble, steel re-bar, dry-wall, transite siding, cardboard, Class 2 paper, packing, plastics, foil, wood packaging, wood debris, bricks, cement and other inert constituents."

The owner of the site is the Department of the Army and its address where more specific information may be obtained is as follows:

ATTN: DAIM-ODB-LO (R. Zeiler)
Post Office Box 220
Ratcliff, AR 72951

or

Assistant Chief of Staff for Installation Management
ATTN: DAIM-BDO (T. Lederle)
600 Army Pentagon
Washington, D.C. 20310-0600

Rose M. Zeiler
Longhorn AAP Site Manager

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INTRODUCTION

BACKGROUND INFORMATION

Longhorn Army Ammunition Plant (LHAAP) is an 8,493 acre government owned former industrial facility located in Karnack, Harrison County, Texas approximately 15 miles northeast of Marshall, Texas (see Appendix A, Figure 1 for Site Map). The site is bounded by Caddo Lake, and the town of Uncertain, Texas to the north and northeast and the town of Karnack to the west (see Appendix A, Figure 2 for Installation Map).

In the summer of 1941, the Army's Ordnance Department proposed to Monsanto Chemical Co. who had built and operated the original LHAAP, formerly named Longhorn Ordnance Works to become and operate as a smokeless powder plant. Monsanto Chemical Co. responded by stating that their facility would be better suited for the production of Trinitrotoluene (TNT).

PLANT 1 - TNT FACILITY

On December 15, 1941 the Army's Ordnance Department selected Karnack, Texas as the site to build a "U.S. TNT six-line special" facility. Contract for the construction and operation of the facility between Monsanto Chemical Co. and Army's Ordnance Department was signed on December 22, 1941.

The first flake of TNT was produced on October 19, 1942 and by the end of March 1943, four of the six lines were in operation. A new process for converting the mono and tri stages of operation to direct nitration was underway, one line was modified to the new process and returned to operation in May 1943. The conversion was so successful in reducing the batch time cycle that similar alterations for the remaining three lines were quickly implemented. Operation of the fifth line began in 1944 and line six was never operated due to lack of acid manufacturing facilities.

LHAAP from its production of the first TNT flake in October 19, 1942 to August 15, 1945 when production halted ultimately produced 414,805,500 pounds of TNT. This output aggregated eight and a half million pounds more than scheduled production.

PLANT 2 – PROPELLANT FUEL FACILITY

In November 7, 1949 Monsanto signed a contract with the War Department for a JB-2 propellant fuel plant consisting of three lines. Construction of the first line was at 90 percent completion when it was halted on August 21, 1945. Decontamination and preservation work in both Plant 1 and Plant 2 were completed on November 2, 1945 and LHAAP was classified as a standby installation up till February 1, 1952.

PLANT 2 – PYROTECHNIC PRODUCTION

In November 1951 the government entered into a contract with Universal Match Corporation as the operating contractor to reactivate Plant 2 for Korean War pyrotechnics production. Universal Match Corporation produced 3,425,942 pyrotechnic devices before production was discontinued in April 1965, including more than a million "ground signals" which would return to LHAAP for rework early in the Vietnam War.

PLANT 3 – SOLID FUEL ROCKET MOTOR FACILITY

The Army awarded a contract to Thiokol Chemical Corporation to construct a facility to produce solid fuel rocket motors for the Army's second generation of tactical missiles. Construction of the facility began in July 1953 and was completed in December 1955. In the same month, Universal Match Corporation Plant 2 operations were completed also. The first mix of live propellant was produced in December 1954 and a variety of small and large rocket motors were produced (Flacon, LaCrosse, two-inch FFAR, all the second stage sustainer motors for both the single-stage Sergeant and the two-stage Pershing missile systems). Rocket motor production continued until early 1971, when the final Nike Hercules units were packed for delivery.

PLANT 2 – ILLUMINATING MUNITIONS (1965 – 1967)

In 1965 the nation's involvement in Southeast Asia increased dramatically, requirements for production of pyrotechnic and illuminating munitions became unprecedented. LHAAP rose to the challenge and Plant 2 was rehabilitated and reactivated to produce 155 mm, 105 mm, 81mm, 60 mm, hand held signals, button bombs, 4.2 in. mortar, AN/ALA-17 flare, etc.

LHAAP FACILITY (1970's – Present)

In the early 1980's Thiokol Corporation and Morton-Norwich merged into Morton Thiokol, Inc., a new contractor for the recent merging of two commands; ARRCOM and ARRADCOM, in a unified command known as AMCCOM (R) and AMCCOM (D) to increase production efficiency. In July 1989 Morton Thiokol separated into two distinct companies – Thiokol Corporation and Morton International. Thiokol is now essentially an aerospace and ammunition producer. The company is composed of four primary operation groups: space, strategic, tactical and ordnance. Thiokol's Longhorn Division (Contractor-Operator) of LHAAP is part of the Ordnance Operation Groups. A Pershing re-qualification program during 1978 resulted in the production of Pershing P1A motors and expansion project to produce Surface Launched Unit/Fuel Air Explosives (SLUFAE) at LHAAP. In addition, LHAAP became the leading producer of Infrared (Aircraft Counter-measures) Flares for both the Army and Air Force. On August 1990, LHAAP was placed on the National Priorities List (NPL), LHAAP, EPA and the Texas Water Commission (TWC) now called Texas Natural Resource Conservation Commission (TNRCC) entered into a Comprehensive Environmental, Response, Compensation and Liability Act (CERCLA) Section 120 Agreement for remedial activities at LHAAP. In 1997, LHAAP went into standby or layaway status under the Base Realignment and Closure (BRAC) legislation. Department of the Army (DA), U.S. Army Industrial Operations Command released Thiokol Corporation from its contract to serve as operator of the LHAAP facility. In 1998 the Army contracted with Earth Tech to liquidate all personal property and specific installed property.

ARC'S SCOPE OF WORK

In 1999 the Army contracted Project Development Corp. to demolish specific structurally unsafe buildings. Currently, the Army is requesting that additional buildings (approximately 210) be demolished. ARC Abatement, Inc. (ARC) has been contracted as the abatement/demolition contractor for this Scope of Work (SOW). ARC retained Engineering and fire Investigations (EFI) for consulting and testing services to assess ordnance and explosive residue prior to the demolition of the aforementioned buildings. At the completion of the testing and evaluation, EFI issued an Explosive Safety Submission Report summarizing the findings and providing

decontamination recommendations for those buildings found to be contaminated with munitions constituents. Our "Explosives Safety Submission Report" contains elements of the "Explosive Safety Submission for Removal of Ordnance and Explosives from Real Property" (ESS) report which included: Reason for Ordnance and Explosives (OE) by historical records searches, Maps (Regional and Site), OE observations findings and test results within the structures, OE Risk Evaluation, and OE Response Action. EFI's report is only a component of the ESS and does not have all of the elements. The elements of the ESS which are not applicable to EFI's report includes: Start Date, Migration of OE, Clearance Techniques, Alternative Techniques, Quantity-Distance, Off-Site Disposal, Technical Support, Public involvement and After Action Report.

ASSESSMENT OVERVIEW

HISTORICAL RECORDS SEARCHES ("400" AREA)

EFI reviewed the available documentation provided by ARC through the Army's BRAC Technical Support Office. The documentation provided for Historical Records Searches (HRS) consists of "Basic Installation History – Longhorn Army Ammunition Plant, Marshall, Texas (December 15, 1941 to December 31, 1967)", "Annual Historical Review – Reports Control Symbol CSHIS-6 (R3), Longhorn Army Ammunition Plant, US Army Armament, Munitions & Chemical Command AMCCOM (R) (October 1, 1988 to September 30, 1989)" and a listing of the buildings in the "400" Area containing square footages, previous contamination rating and title for each building.

The "400" Area is approximately 10-Acres, is situated west of "Plant 2" Area and is bounded by Avenue P to the Southeast, Ordie Street to the East, 32nd Street to the West and the northern LHAAP property fence to the North (Farm Road 2198). The "400" Area was used for pyrotechnic production. Based on our HRS of the buildings scheduled for demolition in the "400" Area, we noted the following:

- 3 Inert buildings rated as **5X** contamination (402, 404 & 405).
- 6 Pyrotechnic Production buildings rated as **3X** contamination (403, 406, 407, 408, 409 & 410).

BUILDING OBSERVATIONS & ASSESSMENT

At completion of our HRS, EFI performed visual observations to identify building components and associated equipment for the presence of ordnance and explosive residue. Our observations entailed visual observations of exterior surfaces building components, Mechanical, Electrical, and Plumbing (MEP) components, associated process equipment, and interior wall cavities and ceiling plenum where possible for the presence of suspected residual MC. Note that the vast majority of the building's conditions observed consisted of unoccupied spaces where process equipment and HVAC systems has been previously removed leaving essentially a "shell" interior. Based on our visual observations, assessments were made to classify the level of contamination based on U.S. Army's guidance document IOCP 385-1 (Classification of Explosive Contamination). Individual building observations and assessment forms are presented in Appendix C of this report.

SAMPLING/LABORATORY PROCEDURES

EXPRAY TEST PROCEDURES (FIELD TEST)

The primary purpose of the survey was to test for the presence of ordnance and explosive residue in the buildings and on their components. This testing was achieved by the use of an EXPRAY kit through a series of sequential reactions distinguishing between polynitroarimatics – Group A Explosives, nitrate esters and nitramines – Group B Explosives, and inorganic nitrate compounds – Group C Explosives.

The EXPRAY test strip is coated with the thin adhesive and that is applied to a testing surface area of approximately 3 square inches to collect the residue. EXPRAY reagents are then sprayed on to the test strip in a sequential manner to determine if each group of explosives is present by observation of visual color change to the test strip. This process is repeated for each building component identified.

In buildings where chlorates are suspected to exist, based on historic record searches, a chlorate field test is performed. The chlorate test kit is based on a drop tub delivery system that reacts with the chlorates category of explosives. The test strip is applied to the testing surface area of 3 square inches to collect the residue. A drop of reagent is then applied to the test strip to determine if chlorate group of explosive exist by observation of visual color change. This process is repeated for each building component identified.

QUALITY ASSURANCE / QUALITY CONTROL (LABORATORY TEST)

If the EXPRAY test results showed positive for traces for explosives, then a random side-by-side wipe samples with the same surface area were obtained, packaged and shipped to EFI's subcontractor laboratory (Armstrong Forensic Laboratory) for quality assurance/quality control (QA/QC) to confirm positive identification of an EXPRAY explosives group field test. This laboratory is a successful participant in the American Industrial Hygiene Association #363, Texas Department of Public Safety #RA0135295, Drug Enforcement Agency #C00 70769, Environmental Protection Agency #TX120, International Association of Arson Investigators, American Academy of Forensic Sciences, American Society of Testing Materials, ASTM E-30, National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program (NVLAP) and licensed by the Texas Department of Health (TDH).

INDIVIDUAL BUILDING ASSESSMENT / CLASSIFICATION

ARMY REGULATORY CLASSIFICATION (IOCP 385-1)

At completion of visual observations and EXPRAY field tests, the buildings and their associated components were evaluated using the Army regulatory classification "IOCP 385-1 Classification and Remediation of Explosive Contamination"(See Appendix B) for contamination classifications.

BUILDING CLASSIFICATION (BASED ON OBSERVATIONS, ASSESSMENT AND CONFIRMATORY TESTING)

Following is a discussion of the various classifications based on observations, assessment and confirmatory EXPRAY and Laboratory confirmation testing for buildings located in the "400" Area.

A total of 9 buildings from the "400" Area were observed, assessed and analyzed for suspect MC residue contamination.

Building 402 (Photo Nos. 1 & 2)

Building 402 is a one-story wood frame structure, approximately 882 square feet. The building was used as an inert Line Feed Building. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), wood wall, wood ceiling, concrete floor, steel column and beam, steam piping and wood stud frame (interior cavity) were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 402 could begin as soon as practical.

Building 403 (Photo Nos. 3 & 4)

Building 403 is a one-story steel frame structure, approximately 2,600 square feet. The building was used as a Pyrotechnic Production Operations building. Historical record searches revealed process such as M206 pellet consolidation and ALA-17 charging and case assembly occurred at the building. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, corrugated metal wall (exterior), metal wall panel, foam insulated wall, steel frame (interior cavity), transite ceiling, concrete floor, concrete wall, steam piping, fire suppression piping, and ductwork were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 403.

Building 404 (Photo Nos. 5 & 6)

Building 404 is a one-story clay tile block structure, approximately 125 square feet. The building was used as a toilet. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the clay tile block wall (exterior), transite wall, pressed tin ceiling panel, ceiling plenum (interior cavity), vinyl floor tile, concrete floor, steel beam and column, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within this building will need to be capped prior to general demolition of Building 404.

Building 405 (Photo Nos. 7 & 8)

Building 405 is a one-story clay tile block structure, approximately 125 square feet. The building was used as a toilet. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the clay tile block wall (exterior), transite wall, pressed tin ceiling panel, vinyl floor tile, concrete floor, steel beam and column, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within this building will need to be capped prior to general demolition of Building 405.

Building 406 (Photo No. 9)

Building 406 is a one-story wood frame structure, approximately 1,193 square feet. The building was used as a Chemical Process building. Historical record searches revealed packing process of M206, RR119, ALA-17 and MJU-7 pyrotechnics. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall and ceiling (exterior), wood wall, ductwork, fire suppression piping, steam piping, concrete floor, and wood stud frame (interior cavity) were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 406.

Building 407 (Photo Nos. 10 & 11)

Building 407 is a one-story wood frame structure, approximately 464 square feet. The building was used as a Testing building. Historical record searches revealed that the building might have been subjected to MC. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall and ceiling (exterior), metal wall panel, steam piping, concrete wall, and concrete floor, and wood stud frame (interior cavity) were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within this building will need to be capped prior to general demolition of Building 407.

Building 408 (Photo Nos. 12 & 13)

Building 408 is a one-story poured-in-place concrete and wood frame structure, approximately 2,847 square feet. The building was used as a Mixing and Pressing building. Historical record searches revealed that the building was used for loading, assembly, and packing of pyrotechnics. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed

surfaces, the transite wall (exterior), transite ceiling, concrete wall, ductwork, fire suppression piping, steam piping, and wood stud frame (interior cavity) were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 408.

Building 409 (Photo Nos. 14 & 15)

Building 409 is a one-story poured-in-place concrete and wood structure, approximately 2,605 square feet. The building was used as an Assembly and Packing building. Historical record searches revealed that the building was used for pellet packing, dipping, and stencil of pyrotechnics. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the concrete wall (exterior), wood wall, transite wall and ceiling, ductwork, fire suppression piping, column and beam and wood trusses (interior cavity) were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 409.

Building 410 (Photo No. 16 & 17)

Building 410 is a one-story brick structure, approximately 373 square feet. The building was used as a Pyrotechnic building. Current contamination status for this structure prior to our survey is presumed to be **3X**. Based on visual observations of the exposed surfaces, the brick wall (exterior), corrugated metal wall, transite ceiling, steam piping, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains be capped prior to general demolition of Building 410.

OE RESPONSE ACTION PLAN

Based on visual observations and assessment and the results of our EXPRAY field test analysis, none of the buildings in the "400" Area were found to contain Munitions Constituents (MC).

INDIVIDUAL BUILDING OE RECOMMENDED ACTION PLAN

EXPRAY testing did not detect MC in the "400" Area, however, interior spaces of (i.e. inside electrical conduit, fire sprinkler piping, and underground floor drains) have not been tested due to inaccessibility, thus materials that have not been tested should be treated as a "3X" classification and requires an OE response action to decontaminate to a "5X" or "0X" prior to demolition.

Investigators, American Academy of Forensic Sciences, American Society of Testing Materials, ASTM E-30, National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program (NVLAP) and licensed by the Texas Department of Health (TDH). Laboratory results of QA/QC samples are presented in Appendix G.

INDIVIDUAL BUILDING ASSESSMENT / CLASSIFICATION

ARMY REGULATORY CLASSIFICATION (IOCP 385-1)

At completion of visual observations and EXPRAY field tests, the buildings and their associated components were evaluated using the Army regulatory classification "IOCP 385-1 Classification and Remediation of Explosive Contamination"(See Appendix B) for contamination classifications.

BUILDING CLASSIFICATION (BASED ON OBSERVATIONS, ASSESSMENT AND CONFIRMATORY TESTING)

Following is a discussion of the various classifications based on observations, assessment and confirmatory EXPRAY and Laboratory confirmation testing for buildings located in the "Plant 2" Area. A total of 110 buildings from the "Plant 2" Area were observed, assessed and analyzed for suspect MC residue contamination.

Buildings T-1 & T-2 (Photo Nos. 1 & 2)

Buildings T-1 & T-2 are one-story wood frame structures, approximately 400 square feet each. No historical record searches were available for these building; however, our observations noted them to be toilets/restrooms. Current contamination status for these structures prior to our survey was presumed to be **3X**. Based on visual observations of the exposed surfaces, the corrugated metal wall (exterior), transite wall (exterior), wood walls, transite ceiling, wood stud frame (interior cavity), fire suppression, floor tile, concrete floor, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these buildings as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Buildings T-1 & T-2.

Building T-3 (Photo Nos. 3 & 4)

Building T-3 is a one-story wood frame structure, approximately 400 square feet. No historical record searches were available for this building; however, our observations noted it to be a toilet/restroom. Current contamination status for this structure prior to our survey is presumed to be **3X**. Based on visual observations of the exposed surfaces, wood walls, concrete floor, steam piping, wood stud frame (interior cavity), and wood ceiling panel (interior surface) was noted to be free of suspect MC materials. However, EXPRAY confirmatory testing indicated traces residual amount of **Group A explosives** on the steam piping. In addition, laboratory test quality assurance/controls (side by side sample collected) results confirm the presence of **Group A explosives**. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **3X**. We recommend that this building be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Buildings TS-45-A, TS-69 & TS-74 (Photo No. 5)

Buildings TS-45-A, TS-69 & T-74 are one-story wood frame structures, approximately 400 square feet each. No historical record searches were available for these buildings; however, our observations noted them to be guard shacks. Current contamination status for these structures prior to our survey was noted or assumed as **5X**. Based on visual observations of the exposed surfaces, the wood wall (exterior), wood walls, wood ceiling, wood stud frame (interior cavity), wood floor, and floor tile were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structures during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these buildings as **5X**. As no MC materials were observed or detected by testing, general demolition of Buildings TS-45-A, TS-69, & TS-74 could begin as soon as practical.

Building 101 (Photo Nos. 6 & 7)

Building 101 is a one-story brick structure, approximately 2,175 square feet. The building was used as an administration building. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the brick wall (exterior), concrete floor, ceiling tile, gypsum board ceilings, ceiling plenum, steam piping, ductwork, and steel beams & columns were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 101 could begin as soon as practical.

Building 102 (Photo Nos. 7, 8, 9 & 10)

Building 102 is a one-story brick structure, approximately 3,275 square feet. The building was used as a Change House. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the brick wall (exterior), transite wall (exterior), transite wall (interior), floor tile, concrete floor, wood ceiling, steam piping, wood stud frame (interior cavity) and steel beams & columns were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 102 could begin as soon as practical.

Building 102-R (Photo No. 11)

Building 102-R is a wood walkway structure, approximately 508 square feet. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the brick wall (exterior) transite wall (exterior), transite wall (interior), concrete floor, wood ceiling, steam piping, and wood stud frame (interior cavity) were

noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 102-R could begin as soon as practical.

Building 103 (Photo Nos. 12, 13 & 14)

Building 103 is a single-story brick structure, approximately 4,929 square feet. The building was used as a Change House. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the brick wall (exterior), transite wall (exterior), transite wall (interior), floor tile, concrete floor, wood ceiling, ceiling plenum, steam piping, wood stud frame (interior cavity) and steel beams & columns were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 103 could begin as soon as practical.

Building 207 (Photo No.15)

Building 207 is a one-story wood frame structure, approximately 5,543 square feet. The building was used as a Production Building. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), transite wall (interior), transite ceiling, steam piping, ductwork, wood stud frame (interior cavity), concrete wall, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 207 could begin as soon as practical.

Building 727-R (Photo No. 16)

Building 727-R is a one-story brick structure, approximately 144 square feet. No historical record searches were available for this building. Current contamination status for this structure prior to our survey was presumed to be **3X**. Based on visual observations of the exposed surfaces, the brick wall (exterior), transite ceiling, steel beam, concrete floor, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within this building will need to be capped prior to general demolition of Building 727-R.

Buildings L-5 & L-6 (Photo No. 17)

Buildings L-5 & L-6 are one-story wood frame structures, approximately 1,375 and 8,491 square feet, respectively. These buildings were used as Transit Sheds. Historical record searches revealed no evidence of OE production. Current contamination status for these structures prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, wood ceiling, wood stud frame (interior cavity), and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these buildings as **5X**. As no MC materials were observed or detected by testing, general demolition of Buildings L-5 & L-6 could begin as soon as practical.

Building LR-1 (Photo Nos. 18 & 19)

Building LR-1 is a one-story wood frame structure, approximately 3,734 square feet. The building was used as a Lunch Room. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), ceramic tile wall (interior), gypsum board and wood ceilings, ceiling tile, ceiling plenum, steam piping, ductwork, wood stud frame (interior cavity), concrete wall, wood floor, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building LR-1 could begin as soon as practical.

Building M-1 (Photo No. 20)

Building M-1 is a one-story wood frame structure, approximately 500 square feet. No historical record searches were available for this building. Current contamination status for this structure prior to our survey was presumed to be **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), wood ceiling, ceiling cavity, heater, fire suppression piping, light fixtures, concrete floor, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building M-1.

Building M-2 (Photo Nos. 21 & 22)

Building M-2 is a one-story wood frame structure, approximately 1,300 square feet. The building was reportedly used as a General Purpose Administration Building. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), wood wall, wood ceiling, transite ceiling,

steam piping, steel beams & columns, wood stud frame (interior cavity), and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building M-2 could begin as soon as practical.

Building S-1 (Photo Nos. 23 & 24)

Building S-1 is a one-story wood frame structure, approximately 28,243 square feet. The building was used as a General Purpose Warehouse. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), wood wall (interior), wood ceiling, ductwork, steam piping, fire suppression piping, wood trusses, wood stud frame (interior cavity), concrete wall, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building S-1.

Building S-2 (Photo Nos. 25, 26 & 27)

Building S-2 is a one-story wood frame structure, approximately 36,869 square feet. The building was used as a General Purpose Warehouse. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), wood wall (interior), wood ceiling, ductwork, steam piping, fire suppression piping, domestic water tank, wood trusses, wood column, wood stud frame (interior cavity), concrete wall, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building S-2.

Building S-3 (Photo No. 28)

Building S-3 is a one-story wood frame structure, approximately 36,869 square feet. The building was used as a General Purpose Warehouse. The interior is similar to Building S-2. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall (interior), wood ceiling, heater, steam piping, fire suppression piping, wood trusses, wood column, wood stud frame (interior cavity), and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. Based on our visual observations, assessment and confirmatory EXPRAY testing,

we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building S-3.

Building S-4 (Photo No. 29)

Building S-4 is a one-story wood frame structure, approximately 22,606 square feet. The building was used as a General Purpose Warehouse. The interior is similar to Building S-2. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall (interior), wood ceiling, heater, steam piping, fire suppression piping, wood trusses, wood column, wood stud frame (interior cavity), and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building S-4.

Building S-5 (Photo No. 30)

Building S-5 is a one-story concrete masonry structure, approximately 120 square feet. Historical record searches revealed that the building was used as a Pyrotechnic Production Building. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the concrete masonry wall (exterior), wood ceiling panel, ductwork, concrete floor, wood stud frame (interior cavity), and wood trusses were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within the building will need to be capped prior to general demolition of Building S-5.

Building S-7 (Photo No. 31)

Building S-7 is a one-story concrete masonry structure, approximately 168 square feet. Historical record searches revealed that the building was used as a Pyrotechnic Production Building. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the concrete masonry wall (exterior), corrugated fiberglass wall (exterior), transite ceiling panel, steam piping, concrete floor, wood stud frame (interior cavity), and wood trusses were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within the building will need to be capped prior to general demolition of Building S-7.

Building S-8 (Photo No. 32)

Building S-8 is a one-story foam/concrete masonry structure, approximately 200 square feet. Historical record searches revealed that the building was used as a Pyrotechnic Production Building. Current contamination status for this structure prior to our survey was

noted as **3X**. Based on visual observations of the exposed surfaces, the foam/concrete masonry wall (exterior), wood ceiling panel, steam piping, concrete floor, wood stud frame (interior cavity), and wood trusses were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within the building will need to be capped prior to general demolition of Building S-8.

Sheds B, C, D, E, F, G, J, K, & L (Photo Nos. 33, 34, 35, 36, 37, 38, 39, 40 & 41)

Sheds B, C, D, E, F, G, J, K and L are enclosed wood walkway structures located in the pyrotechnic production area. Their sizes ranges approximately from 2,195 to 2,718 square feet. Historical record searches and observations revealed that these walkways were used to interconnect the pyrotechnic buildings and transportation of OE. Current contamination status for these structures prior to our survey was noted as **5X for Sheds B & L and 3X for Sheds C, D & J** and **3X was assumed for Sheds E, F, G, & K**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete floor, wood ceiling, fire suppression piping, steam piping, and wood stud frame (interior cavity) were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within these structures during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these structures as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Sheds B, C, D, E, F, G, J, K & L.

Buildings 211-1 & 211-2 (Photo Nos. 42 & 43)

Buildings 211-1 & 211-2 are two-story ceramic tile block structures, approximately 1,860 square feet each. The buildings were used as Lunch & Break Rooms. Historical record searches revealed no evidence of OE production. Current contamination status for these structures prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the ceramic tile block wall (exterior), wood wall (interior cavity), heater, concrete ceiling, floor tile, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Buildings 211-1 & 211-2 could begin as soon as practical.

Buildings 212-1 Through 212-15 & 212-17 Through 212-20
(Photo Nos. 44, 45, 46, 47, 48, 49 & 50)

Buildings 212-1 through 212-15, & 212-17 through 212-20 are one-story concrete/steel frame structures, approximately 300 square feet each. Historical record searches revealed that these building were used as Pyrotechnic Production Buildings. Current contamination status for these structures prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, transite ceiling, steel beam, wood wall (interior cavity), wood door, concrete floor, fire suppression piping, ductwork, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was

observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these buildings as **5X**. However, any floor drains within these buildings will need to be capped prior to general demolition of Buildings 212-1 through 212-15 & 212-17 through 212-20.

Building 212-16 (Photo No. 51)

Building 212-16 is a one-story concrete/steel frame structure, approximately 2,300 square feet. Historical record searches revealed that this building was used as Pyrotechnic Production Building. Current contamination status for this structure prior to our survey is presumed to be **3X** Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, transite ceiling, steel beam, wood door, concrete floor, fire suppression piping, and steam piping were noted to be free of suspect MC materials. However, EXPRAY confirmatory testing indicated traces residual amount of **Group C explosives** on a steel column. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **3X**. We recommend that this building be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Building 212-21, 212-23, & 212-27 (Photo Nos. 52, 53 & 54)

Buildings 212-21, 212-23, & 212-27 are one-story concrete/steel frame structures, approximately 300 square feet each. Historical record searches revealed that these buildings were used as Pyrotechnic Production Buildings. Current contamination status for these structures prior to our survey was noted as **3X.** Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, transite ceiling, steel beam, wood door, concrete floor, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these buildings as **5X.** However, any floor drains within these buildings will need to be capped prior to general demolition of Buildings 212-21, 212-23, & 212-27.

Buildings 212-25, 212-29, 212-31, 212-32, 212-33, & 212-36
(Photo Nos. 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65 & 66)

Building 212-25, 212-29, 212-31, 212-32, 212-33 & 212-36 are a one-story concrete/steel frame structures, approximately 300 square feet each. Historical record searches revealed that these buildings were used as Pyrotechnic Production Buildings. Current contamination status for these structures prior to our survey is noted as **3X.** Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, transite ceiling, steel beam, wood door, wood wall (interior cavity), concrete floor, chilled water piping, fire suppression piping, and steam piping were noted to be free of suspect MC materials. However, EXPRAY confirmatory testing indicated traces residual amount of **Group A explosives** on the concrete wall in Building 212-25, traces residual amount of **Group A explosives** on the concrete floor, concrete wall, wood door, steel beam, transite ceiling in Building 212-29, traces residual amount of **Group A explosives** on the concrete wall and steel beam in Building 212-31, traces residual amount of **Group A explosives** on the angle iron support, concrete wall, chilled water piping, steam piping, ductwork and radiator in Building 212-32, traces residual amount of **Group A explosives** on the

concrete floor, concrete wall, fire suppression piping, steam piping, and wood door in Building 212-33, and traces residual amount of **Group A explosives** on the concrete floor in Building 212-36. In addition, laboratory test quality assurance/controls (side by side sample collected) results confirm the presence of traces residual amount of **Group A explosives** in Buildings 212-25, 212-29 and 212-32. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these buildings as **3X**. We recommend that these buildings be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Building 212-34 & 212-35 (Photo Nos. 67 & 68)

Buildings 212-34 & 212-35 are one-story concrete/steel frame structures, approximately 300 square feet each. Historical record searches revealed that these building were used as Pyrotechnic Production Buildings. Current contamination status for these structures prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, transite ceiling, steel beam, wood door, concrete floor, ductwork, fire suppression piping, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these buildings as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Buildings 212-34 & 212-35.

Buildings 212-35-R & 212-38-R (Photo Nos. 69 & 70)

Buildings 212-35-R & 212-38-R are walkway structures located in the pyrotechnic production area. Their sizes range from approximately 2,195 to 2,718 square feet. It appears that these walkways were used to interconnect the pyrotechnic buildings and transportation of OE. Current contamination status for these structures prior to our survey was **assumed as 3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete floor, wood ceiling, steam piping, fire suppression piping, and wood stud frame (interior cavity) were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within these building structures during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these buildings as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Buildings 212-35-R and 212-38-R.

Buildings 212-37 Through 212-40 (Photo Nos. 71 & 72)

Buildings 212-37 through 212-40 are one-story concrete/steel frame structures, approximately 300 square feet each. Historical record searches revealed that these building were used as Pyrotechnic Production Buildings. Current contamination status for these structures prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, transite ceiling, steel beam, wood wall (interior cavity), wood door, concrete floor, ductwork, fire suppression piping, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these buildings as **5X**. However, fire suppression piping will

need to be decontaminated and any floor drains be capped prior to general demolition of Buildings 212-37 through 212-40.

Buildings 212-42, 212-44 & 212-46 (Photo Nos. 73 & 74)

Buildings 212-42, 212-44 & 212-46 are one-story concrete/steel frame structures, approximately 300 square feet each. Historical record searches revealed that these building were used as Pyrotechnic Production Buildings. Current contamination status for these structures prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, transite ceiling, steel beam, wood door, concrete floor, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these buildings as **5X**. However, any floor drains within these buildings will need to be capped prior to general demolition of Buildings 212-42, 212-44, & 212-46.

Buildings 212-48 & 212-50 (Photo Nos. 75, 76, 77 & 78)

Building 212-48 & 212-50 are a one-story concrete/steel frame structures, approximately 300 square feet each. Historical record searches revealed that these buildings were used as Pyrotechnic Production Buildings. Current contamination status for these structures prior to our survey is noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, transite ceiling, steel beam, wood door, and concrete floor were noted to be free of suspect MC materials. However, EXPRAY confirmatory testing indicated traces residual amount of **Group A explosives** on the concrete wall and steel beam in Building 212-48 and, traces residual amount of **Group A explosives** on the concrete wall Building 212-50. In addition, laboratory test quality assurance/controls (side by side sample collected) results confirm the presence of traces residual amount of **Group A explosives** in Building 212-48. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these buildings as **3X**. We recommend that this building be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Buildings 212-51 Through 212-57 and 212-59 (Photo Nos. 79, 80, 81, 82, 83 & 84)

Buildings 212-51 through 212-57 and 212-59 are one-story concrete/steel frame structures, approximately 300 square feet each. Historical record searches revealed that these building were used as Pyrotechnic Production Buildings. Current contamination status for these structures prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, transite ceiling, steel beam, wood door, concrete floor, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these buildings as **5X**. However, any floor drains within these buildings will need to be capped prior to general demolition of Buildings 212-51 through 212-57 and 212-59.

Building P-1 (Photo Nos. 85 & 86)

Building P-1 is a one-story wood and concrete frame structure, approximately 1,950 square feet. Historical record searches revealed that this building was used as a Pyrotechnic Production Building. Current contamination status for these structures prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, wood ceiling, ceiling plenum, wood stud frame (interior cavity), concrete floor, ductwork, fire suppression piping, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Buildings P-1.

Building P-3 (Photo Nos. 87, 88 & 89)

Building P-3 is a one-story wood and concrete framed structure, approximately 4,164 square feet. Historical record searches revealed that this building was used as a Pyrotechnic Production Building. Current contamination status for these structures prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, transite ceiling, wood stud, wood trusses, concrete floor, ductwork, fire suppression piping, exhaust flue, and steam piping were noted to be free of suspect MC materials. However, EXPRAY confirmatory testing indicated traces residual amount of **Group C explosives** on the wood trusses and steel beam in Building P-3. In addition, laboratory test quality assurance/controls (side by side sample collected) results confirm the presence traces residual amount of **Group C explosives.** Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **3X**. We recommend that this building be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Building P-9 (Photo Nos. 90 & 91)

Building P-9 is a one-story wood frame structure, approximately 1,500 square feet. No historical record searches were available for this building. However, based on our observations, this building was used as a Pyrotechnic Production Building. Current contamination status for this structure prior to our survey was assumed to be **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), transite ceiling, wood stud, concrete floor, light fixtures, heater, sink basin, steel column and beam, and steam piping were noted to be free of suspect MC materials. However, EXPRAY confirmatory testing indicated traces residual amount of **Group A explosives** on the steam piping, sink basin, light fixtures, and wood stud frame in Building P-9. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **3X**. We recommend that this building be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Buildings P-10, P-11 & P-14 (Photo Nos. 92, 93 & 94)

Buildings P-10, P-11 and P-14 are one-story wood frame structures, approximately 1,764, 1,777 and 1,935 square feet, respectively. Historical record searches revealed that these

buildings were used as Pyrotechnic Production Buildings. Current contamination status for these structures prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), transite ceiling, fire suppression piping, domestic water piping, wood stud frame (interior cavity), concrete floor, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these buildings as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Buildings P-10, P-11 & P-14.

Building P-13 (Photo Nos. 95 & 96)

Building P-13 is a one-story wood and concrete framed structure, approximately 1,500 square feet. No historical record searches were available for this building. However, based on our observations, this building was used as a Pyrotechnic Production Building. Current contamination status for this structure prior to our survey was assumed to be **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, wood ceiling, wood stud, concrete floor, fire suppression piping, steel column and beam, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building P-13.

Building P-112 (Photo Nos. 97 & 98)

Building P-112 is a one-story wood frame structure, approximately 2,300 square feet. No historical record searches were available for this building. However, based on our observations, this building was used as a Pyrotechnic Production Building. Current contamination status for this structure prior to our survey was assumed to be **3X**. Based on visual observations of the exposed surfaces, the corrugated metal wall (exterior), concrete wall, foam ceiling, gypsum board ceiling, wall cavity, ductwork, ceramic tile floor, concrete floor, fire suppression piping, and steel column and beam were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building P-112.

Building P-113 (Photo Nos. 99 & 100)

Building P-113 is a one-story wood frame structure, approximately 2,290 square feet. It appears that this building was used as a Pyrotechnic Production Building. Current contamination status for this structure prior to our survey was assumed to be **3X**. Based on visual observations of the exposed surfaces, the corrugated metal wall (exterior), concrete masonry wall, foam board ceiling, gypsum board ceiling, ductwork, concrete floor, fire suppression piping, and steel column and beam were noted to be free of suspect MC materials. However, EXPRAY confirmatory testing indicated traces residual amount of

Group A explosives on the ductwork, fire suppression piping, and steel beams and columns in Building P-113. In addition, laboratory test quality assurance/controls (side by side sample collected) results confirm the presence of traces residual amount of **Group A explosives**. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **3X**. We recommend that this building be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Building P-116 (Photo Nos. 101 & 102)

Building P-116 is a one-story concrete masonry structure, approximately 3,520 square feet. Historical record searches revealed that this building was used as a Pyrotechnic Production Building. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the concrete masonry wall (exterior), concrete wall, foam board ceiling, corrugated metal ceiling, concrete floor, ductwork, steel beam and column, fire suppression piping, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building P-116.

Building P-117 (Photo Nos. 103 & 104)

Building P-117 is a one-story wood frame structure, approximately 3,520 square feet. Historical record searches revealed that this building was used as a Pyrotechnic Production Building. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the corrugated metal wall (exterior), concrete masonry wall, corrugated metal wall, foam board ceiling, corrugated metal ceiling, ductwork, steel beam and column, concrete floor, fire suppression piping, steam piping, and steel column and beam were noted to be free of suspect MC materials. However, EXPRAY confirmatory testing indicated traces residual amount of **Group A explosives** on the ductwork, steam piping, steel beams and columns and corrugated metal wall in Building P-117. In addition, laboratory test quality assurance/controls (side by side sample collected) results confirm the presence of traces residual amount of **Group A explosives**. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **3X**. We recommend that this building be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Building P-118 (Photo Nos. 105 & 106)

Building P-118 is a one-story concrete structure, approximately 19,204 square feet. Historical record searches revealed that this building was used as a Pyrotechnic Production Building. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the concrete masonry wall (exterior), concrete wall, foam board ceiling, transite ceiling, concrete floor, ductwork, steel beam and column, fire suppression piping, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing.

No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of P-118.

Building P-122 & P-123 (Photo Nos. 107 & 108)

Buildings P-122 and P-123 are one-story concrete masonry structures, approximately 6,100 square feet each. Historical record searches revealed that these buildings were used as Pyrotechnic Production Buildings. Current contamination status for Building P-122 was assumed to be **3X** and Building P-123 was noted as **3X** prior to our survey. Based on visual observations of the exposed surfaces, the concrete masonry wall (exterior), concrete wall, foam board ceiling, corrugated metal ceiling, concrete floor, ductwork, steel beam and column, fire suppression piping, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these buildings as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Buildings P-122 and P-123.

Building P-124 (Photo Nos. 109 & 110)

Building P-124 is a one-story metal frame structure, approximately 850 square feet. Historical record searches revealed that this building was used as a Tank Car Unloading Building. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the corrugated metal wall (exterior), corrugated metal ceiling, concrete floor, and steel beam and column were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains be capped prior to general demolition of P-118.

Buildings B-7 Through B-16 (Photo Nos. 111, 112, 113, 114 & 115)

Buildings B-7 through B-16 are one-story concrete/wood structures, with their sizes ranging from approximately 1,632 square feet to 6,374 square feet. Historical record searches revealed that these building were used as Pyrotechnic Production Buildings. Current contamination status for these structures prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, wood wall, transite ceiling, wood ceiling, foam board ceiling, wood stud frame (interior cavity), concrete floor, fire suppression piping, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate these buildings as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Buildings B-7 through B-16.

QUALITY ASSURANCE / QUALITY CONTROL (LABORATORY TEST)

Random side-by-side wipe samples with the same surface area are obtained, packaged and shipped to EFI's subcontractor laboratory (Armstrong Forensic Laboratory) for quality assurance/quality control (QA/QC) to confirm positive identification of an EXPRAY explosives group field test. This laboratory is a successful participant in the American Industrial Hygiene Association #363, Texas Department of Public Safety #RA0135295, Drug Enforcement Agency #C00 70769, Environmental Protection Agency #TX120, International Association of Arson Investigators, American Academy of Forensic Sciences, American Society of Testing Materials, ASTM E-30, National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program (NVLAP) and licensed by the Texas Department of Health (TDH). Laboratory results of QA/QC samples are presented in Appendix G.

INDIVIDUAL BUILDING ASSESSMENT / CLASSIFICATION

ARMY REGULATORY CLASSIFICATION (IOCP 385-1)

At completion of visual observations and EXPRAY field tests, the buildings and their associated components were evaluated using the Army regulatory classification "IOCP 385-1 Classification and Remediation of Explosive Contamination"(See Appendix B) for contamination classifications.

BUILDING CLASSIFICATION (BASED ON OBSERVATIONS, ASSESSMENT AND CONFIRMATORY TESTING)

Following is a discussion of the various classifications based on observations, assessment and confirmatory EXPRAY and Laboratory confirmation testing for buildings located in the "Plant 3" Area. A total of 61 buildings from the "Plant 3" Area were observed, assessed and analyzed for suspect MC residue contamination.

Building 25-G-2 (Photo Nos. 1 & 2)

Building 25-G-2 is a one-story wood frame structure, approximately 125 square feet. The building was used as a clock house. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X.** Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete floor, and wood stud frame structure were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X.** As no MC materials were observed or detected by testing, general demolition of Building 25-G-2 could begin as soon as practical.

Building 26-G (Photo Nos. 3 & 4)

Building 26-G is a one-story wood frame structure, approximately 5,824 square feet. The building was used as a change house. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X.** Based on visual observations of the exposed surfaces, the transite wall (exterior), steam piping, ductwork, domestic water tank, steel columns, wood stud frame

(interior wall cavity), and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 26-G could begin as soon as practical.

Building 61-I (Photo Nos. 5 & 6)

Building 61-I is a one-story wood frame structure, approximately 1,215 square feet. The building was used as a compressor building. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the transite wall (exterior surface), wood ceiling, concrete floor, steam piping, steel trusses, wood stud frame (interior wall cavity), and transite ceiling panel (interior surface) were noted to be free of suspect MC materials. However, EXPRAY confirmatory testing indicated traces residual amount of **Group A explosives** on the steel trusses, wood ceiling and in the concrete pit. In addition, laboratory test quality assurance/controls (side by side sample collected) results confirm the presence of traces residual amount of **Group A explosives**. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **3X**. We recommend that this building be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Building 60-I (Photo Nos.7 & 8)

Building 60-I is a one-story wood frame structure, approximately 136 square feet. The building was used as a storage building. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the corrugated metal wall (exterior), concrete floor, and wood stud frame (interior wall cavity) panel were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 60-I could begin as soon as practical.

Building 62-I (Photo Nos. 9 & 10)

Building 62-I is a one-story wood frame structure, approximately 4,292 square feet. The building was used as an inert storage building. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), gypsum wallboard and gypsum board ceiling, floor tile, concrete floor, steam piping, steel column, and wood stud frame (interior wall cavity) were noted to be free of suspect MC materials. However, EXPRAY confirmatory testing indicated traces residual amount of **Group A explosives** on the transite wall, gypsum wallboard, wood stud frame (interior wall cavity). In addition, laboratory test quality assurance/controls (side by side sample collected) results confirm the presence of traces residual amount of **Group A explosives**. Based on our visual observations, assessment and confirmatory EXPRAY

testing, we rate this building as **3X**. We recommend that this building be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Building 61-J

Building 61-J is a one-story wood frame structure, approximately 6,656 square feet. The building was used as a change house. Historical record searches revealed no evidence of OE production. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete floor, steel column, steam piping, domestic piping, washbasin, ductwork, and wood stud frame (interior wall cavity) were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 60-J could begin as soon as practical.

Building 61-J-2

Building 61-J-2 is a one-story wood frame structure, approximately 117 square feet. Historical record searches revealed that the building was used as a clock house. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete floor, and wood stud frame (interior wall cavity) were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 60-J-2 could begin as soon as practical.

Building 22-B (Photo Nos. 11 & 12)

Building 22B is a one-story steel/poured-in-place concrete frame structure, approximately 4,240 square feet. Historical record searches revealed that the building was used as an inert storage building. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the corrugated metal wall (exterior), steel columns and beams, concrete wall, concrete floor, wood wall, wall cavity, and wood and gypsum ceiling panel, were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 22-B could begin as soon as practical.

Building 32-B (Photo Nos. 13 & 14)

Building 32-B is a one-story steel/poured-in-place concrete frame structure, approximately 6,905 square feet. Historical record searches revealed that the building was used as a general storage building. Current contamination status for this structure prior to our survey

is noted as **5X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), corrugated metal wall (exterior), concrete wall, steel beams and columns, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 32-B could begin as soon as practical.

Building 31-A

Building 31-A is a one-story wood frame structure, approximately 288 square feet. Historical record searches revealed that the building was used as a laboratory storage building. Current contamination status for this structure prior to our survey is noted as **5X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), wood stud frame (interior cavity) and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 31-A could begin as soon as practical.

Building 29-A (Photo Nos. 15 & 16)

Building 29-A is a one-story concrete masonry/concrete structure, approximately 12,750 square feet. Historical record searches revealed that the building was used as a laboratory. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the concrete masonry wall (exterior), concrete wall (interior), transite wall, floor tile, steam piping, lab counters, exhaust flue, ductwork, and gypsum ceiling board were noted to be free of suspect MC materials. However, EXPRAY confirmatory testing indicated traces residual amount of **Group A explosives** on the transite wall and ductwork. In addition, laboratory test quality assurance/controls (side by side sample collected) results confirm the presence of traces residual amount of **Group A explosives**. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **3X**. We recommend that this building be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Building 27-A (Photo Nos. 17 & 18)

Building 27-A is a one-story brick structure, approximately 2,562 square feet. Historical record searches revealed that the building was used as an administration building. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the brick wall (exterior), gypsum wallboard (interior), steam piping, wood stud frame (interior cavity) and floor tile were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 27-A could begin as soon as practical.

Building 21-A

Building 21-A is a one-story brick structure, approximately 2,112 square feet. Historical record searches revealed that the building was used as an administration building. Current contamination status for this structure prior to our survey was noted as **5X**. Based on visual observations of the exposed surfaces, the brick wall (exterior), gypsum wallboard (interior), steam piping, wood stud frame (interior cavity) and floor tile were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 21-A could begin as soon as practical.

Building 46-A (Photo Nos. 19, 20, & 21)

Building 46-A is a one-story steel frame structure, approximately 6,376 square feet. Historical record searches revealed that the building was used as a Propellant Plant (Casting & Curing Building). Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), corrugated metal wall (exterior), steel column, concrete wall, wood ceiling panel, concrete floor, wood stud frame (interior cavity), fire suppression piping, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 46-A.

Building 49-B

Building 49-B is a one-story steel frame structure, approximately 6,376 square feet. Historical record searches revealed that the building was used as a Propellant Plant (Press & Pump House). Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), corrugated metal wall (exterior), steel column, concrete wall, wood floor, concrete floor, wood stud frame (interior cavity), ductwork, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within this building will need to be capped prior to general demolition of Building 49-B.

Building 49-B-1

Building 49-B-1 is a one-story brick structure, approximately 400 square feet. No historical record searches were available for this building; however, our observations noted it to be a toilet/restroom. Current contamination status for this structure prior to our survey is presumed to be **3X**. Based on visual observations of the exposed surfaces, the brick wall (exterior), steel trusses, wood ceiling, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was

observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 49-B-1 could begin as soon as practical.

Building 47-B

Building 47-B is a one-story poured-in-place concrete structure, approximately 624 square feet. Historical record searches revealed that the building was used as a Propellant Plant. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the concrete wall (exterior), concrete floor, ductwork, and transite wall were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 47-B could begin as soon as practical.

Building 46-B (Photo Nos. 22, 23 & 24)

Building 46-B is a one-story poured-in-place concrete/steel frame structure, approximately 2,361 square feet. Historical record searches revealed that the building was used as a Propellant Plant. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the concrete wall (exterior), corrugated metal wall (exterior), steel column, wood ceiling, fire suppression piping, concrete floor, wood stud frame, and transite wall were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 46-B.

Building 53-B (Photo Nos. 25 & 26)

Building 53-B is a one-story poured-in-place concrete/steel frame structure, approximately 609 square feet. Historical record searches revealed that the building was used as part of an X-Ray Complex. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), brick wall (interior), wood beam, wood ceiling, fire suppression piping, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 53-B.

Building 53-B-1

Building 53-B-1 is a one-story brick structure, approximately 400 square feet. No historical record searches were available for this building; however, our observations noted it to be a

toilet/restroom. Current contamination status for this structure prior to our survey is presumed to be **3X**. Based on visual observations of the exposed surfaces, the brick wall (exterior), concrete floor, steel column, concrete ceiling and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 53-B-1 could begin as soon as practical.

Building 54-B

Building 54-B is a one-story poured-in-place concrete/steel frame structure, approximately 545 square feet. Historical record searches revealed that the building was used as part of an X-Ray Complex. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), brick wall (interior), transite wall, transite ceiling, fire suppression piping, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 54-B.

Building 55-B

Building 55-B is a one-story poured-in-place concrete/steel frame structure, approximately 905 square feet. Historical record searches revealed that the building was used as part of an X-Ray Complex. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), brick wall (interior), concrete wall, wood stud frame (interior cavity), transite ceiling, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within this building will need to be capped prior to general demolition of Building 55-B.

Building 56-B (Photo Nos. 27, 28 & 29)

Building 56-B is a one-story poured-in-place, brick, wood frame structure, approximately 905 square feet. Historical record searches revealed that the building was used as part of an X-Ray Complex. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), brick wall (interior), concrete wall, wood stud frame (interior cavity), transite ceiling, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within this building will need to be capped prior to general demolition of Building 56-B.

Building 56-B-1

Building 56-B-1 is a one-story wood frame structure, approximately 400 square feet. No historical record searches were available for this building; however, our observations noted it to be a toilet/restroom. Current contamination status for this structure prior to our survey is presumed to be **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete floor, transite ceiling, wood stud frame (interior cavity) and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains within this building will need to be capped prior to general demolition of Building 56-B-1.

Building 59-B

Building 59-B is a one-story wood frame/brick structure, approximately 535 square feet. Historical record searches revealed that the building was used as part of an X-Ray Complex. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), brick wall (interior), transite ceiling, wood stud frame (interior cavity), fire suppression piping, and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 59-B-1.

Building 60-B

Building 60-B is a one-story wood frame/brick structure, approximately 705 square feet. Historical record searches revealed that the building was used as part of an X-Ray Complex. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), brick wall (interior), gypsum wallboard, wood beam, transite ceiling, wood stud frame (interior cavity), and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within this building will need to be capped prior to general demolition of Building 18Y.

Building 68-C (Photo Nos. 30, 31 & 32)

Building 68-B is a one-story steel frame structure, approximately 4,064 square feet. Historical record searches revealed that the building was used as a Propellant Plant. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the corrugated metal wall (exterior), wood wall panel, wall cavity, foam board wall panel, exhaust flue, domestic piping, steel beam, gypsum board ceiling, ductwork, air handling unit, and concrete floor were noted to be free

of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within this building will need to be capped prior to general demolition of Building 68-C.

Building 69-C (Photo Nos. 33 & 34)

Building 69-C is a one-story wood frame structure, approximately 144 square feet. Historical record searches revealed that the building was used as a Break Area. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the corrugated metal wall (exterior), wood stud frame (interior cavity), and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 69-C could begin as soon as practical.

Building 68-G-1 (Photo Nos.35 & 36)

Building 68-G-1 is a one-story wood frame structure, approximately 255 square feet. Historical record searches revealed that the building was used as a restroom. Current contamination status for this structure prior to our survey is presumed to be **3X**. Based on visual observations of the exposed surfaces, the wood wall (exterior), concrete floor, wood ceiling, wood stud frame (cavity) and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within this building will need to be capped prior to general demolition of Building 68-G-1.

Building 68-F (Photo Nos. 37, 38 & 39)

Building 68-F is a one-story poured-in-place concrete/wood frame structure, approximately 9,546 square feet. Historical record searches revealed that the building was used as a Production Building. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), wood wall panel, wood stud frame (interior cavity), steam piping, fire suppression piping, steel column, transite ceiling, ductwork, and concrete floor were noted to be free of suspect MC materials. However, EXPRAY confirmatory testing indicated traces residual amount of **Group A explosives** on the ductwork. In addition, laboratory test quality assurance/controls (side by side sample collected) results confirm the presence of traces residual amount of **Group C explosives**. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **3X**. We recommend that this building be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Building 68-F-1

Building 68-F-1 is a one-story wood frame structure, approximately 255 square feet. Historical record searches revealed that the building was used as a restroom. Current contamination status for this structure prior to our survey is presumed to be **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete floor, gypsum wallboard, wood stud frame (interior cavity) and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within this building will need to be capped prior to general demolition of Building 68-F-1.

Building 26-E (Photo Nos. 40 & 41)

Building 26-E is a one-story concrete structure, approximately 10,551 square feet. Historical record searches revealed that the building was used as a Propellant Plant. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall (interior), steam piping, fire suppression piping, ductwork, radiator, and concrete floor were noted to be free of suspect MC materials. However, EXPRAY confirmatory testing indicated traces of traces residual amount of **Group A explosives** on the transite wall. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **3X**. We recommend that this building be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Building 26-E-1 (Photo Nos. 42 & 43)

Building 26-E-1 is a one-story wood frame structure, approximately 255 square feet. Historical record searches revealed that the building was used as a restroom. Current contamination status for this structure prior to our survey is presumed to be **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), wood wall, concrete floor, gypsum wallboard, wood stud frame (interior cavity) and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within this building will need to be capped prior to general demolition of Building 26-E-1.

Building 32-E (Photo Nos. 45 & 46)

Building 32-E is a one-story poured-in-place concrete structure, approximately 1,830 square feet. Historical record searches revealed that the building was used as a Propellant Plant. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the concrete wall (exterior), wood wall panel, gypsum wallboard, wall cavity, transite ceiling, gas piping, ductwork, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and

confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 32-E.

Building 29-D (Photo Nos. 47 & 48)

Building 29-D is a one-story poured-in-place concrete structure, approximately 7,397 square feet. Historical record searches revealed that the building was used as a Propellant Plant. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the concrete wall (exterior), gypsum wallboard, transite wall, wall cavity, wood ceiling, concrete ceiling, hopper, gas piping, ductwork, fire suppression piping, gas piping, steam piping and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 29-D.

Building 29-D-1

Building 29-D-1 is a one-story wood frame structure, approximately 255 square feet. No historical record searches were available for this building; however, our observations noted it to be a toilet/restroom. Current contamination status for this structure prior to our survey is presumed to be **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete floor, gypsum wallboard, wood wall panel, wood stud frame (interior cavity) and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 29-D-1.

Building 25-D

Building 25-D is a two-story poured-in-place concrete structure, approximately 10,805 square feet. Historical record searches revealed that the building was used as a Propellant Plant. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), wood ceiling, ceiling plenum, concrete ceiling, air handling unit, ductwork, fire suppression piping, steam piping and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 25-D.

Building 25-D-1

Building 25-D-1 is a one-story wood frame structure, approximately 255 square feet. No historical record searches were available for this building; however, our observations noted it to be a toilet/restroom. Current contamination status for this structure prior to our survey is presumed to be **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete floor, gypsum wallboard, gypsum ceiling board, wood stud frame (interior cavity) and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 25-D-1 could begin as soon as practical.

Building 35-B (Photo Nos. 49 & 50)

Building 35-B is a one-story brick structure, approximately 680 square feet. Historical record searches revealed that the building was used as Pyrotechnic Production. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the brick wall (exterior), wood joist, fire suppression piping, radiator, steam piping and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 35-B.

Building 39-E

Building 39-E is a one-story covered walkway wood structure. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the corrugated metal ceiling (exterior), steel beam and column, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 39-E could begin as soon as practical.

Building 40-D

Building 40-D is a one-story steel frame structure, approximately 228 square feet. Historical record searches revealed that the building was used as a Propellant Plant. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the corrugated metal ceiling (exterior), steel beam and column, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any

floor drains within this building will need to be capped prior to general demolition of Building 40-D.

Building 41-E

Building 41-E is a one-story steel frame structure, approximately 1,495 square feet. Historical record searches revealed that the building was used as a Propellant Plant. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the corrugated metal wall (exterior), steel beam and column, fiberglass ceiling, fire suppression piping, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 41-E.

Building 36-B

Building 36-B is a one-story steel frame structure, approximately 680 square feet. Historical record searches revealed that the building was used as a Propellant Plant. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the brick wall (exterior), steel wall (interior), transite ceiling, steel beam and column, ductwork, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within this building will need to be capped prior to general demolition of Building 36-B.

Building 38-B

Building 38-B is a one-story brick structure, approximately 786 square feet. Historical record searches revealed that the building was used as a Propellant Plant. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the brick wall (exterior), transite wall (interior), ductwork, radiator, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, any floor drains within this building will need to be capped prior to general demolition of Building 38-B.

Building 50-G

Building 50-G is a one-story steel frame structure, approximately 3,138 square feet. Historical record searches revealed that the building was used as a Propellant Plant. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), steel beam and column, wood wall panel, wall cavity, transite ceiling, heater, ductwork, fire suppression piping, steam piping, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within

the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 50-G.

Building 54-F (Photo Nos. 51 & 52)

Building 54-F is a one-story poured-in-place/wood frame structure, approximately 9,563 square feet. Historical record searches revealed that the building was used as a Propellant Plant. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, transite wall, transite ceiling, wood stud frame (interior cavity), steam piping, steel column, ductwork, fire suppression piping, and concrete floor were noted to be free of suspect MC materials. However, EXPRAY confirmatory testing indicated traces residual amount of **Group B explosives** on the concrete floor. In addition, laboratory test quality assurance/controls (side by side sample collected) results confirm the presence of traces residual amount of **Group B explosives**. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **3X**. We recommend that this building be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Building 54-F-1

Building 54-F-1 is a one-story wood frame structure, approximately 100 square feet. Historical record searches revealed that the building was used as a restroom. Current contamination status for this structure prior to our survey is presumed to be **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete floor, gypsum wallboard, gypsum ceiling board, wood stud frame (interior cavity) and steam piping were noted to be free of suspect MC materials. However, EXPRAY confirmatory testing indicated traces residual amount of **Group A explosives** on the transite wall. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **3X**. We recommend that this building be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Building 54-G (Photo Nos. 53, 54 & 55)

Building 54-G is a one-story wood/poured-in-place concrete structure, approximately 10,247 square feet. Historical record searches revealed that the building was used as Propellant Plant. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), steel wall, concrete wall, steel beam, concrete floor, fire suppression piping, steam piping, wood stud frame (interior cavity), and wood ceiling were noted to be free of suspect MC materials. However, Perchlorate confirmatory testing indicated traces residual amount of **Perchlorate** on the steel beam and pneumatic controls. In addition, laboratory test quality assurance/controls (side by side sample collected) results confirm the presence of traces residual amount of **Perchlorate**. Based on our visual observations, assessment and Perchlorate testing, we rate this building as **3X**. No live OE/UXO was observed within the building structure during this survey. We recommend that this building be decontaminated of MC residue in accordance with the Ordnance and Explosive (OE) action plan prior to demolition.

Building 54-G-1

Building 54-G-1 is a one-story wood frame structure, approximately 125 square feet. Historical record searches revealed that the building was used as a restroom. Current contamination status for this structure prior to our survey is presumed to be **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete floor, gypsum wallboard, gypsum ceiling board, wood stud frame (interior cavity) and steam piping were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 54-G-1 could begin as soon as practical.

Building 40-H

Building 40-H is a one-story wood frame structure, approximately 125 square feet. Historical record searches revealed that the building was used as a power shed. Current contamination status for this structure prior to our survey is presumed to be **3X**. Based on visual observations of the exposed surfaces, the corrugated metal wall (exterior), concrete floor, and electrical buss duct were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 40-H could begin as soon as practical.

Building 31-G

Building 31-G is a one-story pour-in-place concrete structure, approximately 5,234 square feet. Historical record searches revealed that the building was used as a Propellant Plant. Current contamination status for this structure prior to our survey was noted as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), concrete wall, steel frame support (cargo bay), chilled water piping, transite ceiling, ductwork, fire suppression piping, steam piping, wood stud frame (interior cavity) and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 31-G.

Building 48-G

Building 48-G is a one-story wood frame structure, approximately 800 square feet. Historical record searches revealed that the building was used as a Sewer Pumping Station. Current contamination status for this structure prior to our survey was presumed as **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), wood stud frame (interior cavity), and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual

observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 48-G could begin as soon as practical.

Building 75-J

Building 75-J is a concrete masonry structure, approximately 500 square feet. Historical record searches revealed that the building was used as a Storage Building. Current contamination status for this structure prior to our survey was presumed as **3X**. Based on visual observations of the exposed surfaces, the concrete masonry wall (exterior), wood stud frame (interior cavity), transite roof, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 75-J could begin as soon as practical.

Building 27-F (Photo No. 44)

Building 27-F is a one-story circular steel structure, approximately 300 square feet. No historical record searches were available for this building; however, our observations noted it to be an observation room. Current contamination status for this structure prior to our survey was presumed as **3X**. Based on visual observations of the exposed surfaces, the steel wall (exterior), foam wall (interior), steel beam, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 27-F could begin as soon as practical.

Building 90-J

Building 90-J is a one-story wood frame structure, approximately 75 square feet. Historical record searches revealed that the building was used as a Guard Shack. Current contamination status for this structure prior to our survey is presumed to be **3X**. Based on visual observations of the exposed surfaces, the transite wall shingle (exterior), wood wall, wood ceiling, concrete floor, and wood stud frame (interior cavity) were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 90-J could begin as soon as practical.

Building 90-J-1

Building 90-J-1 is a one-story wood frame structure, approximately 125 square feet. Historical record searches revealed that the building was used as a restroom. Current contamination status for this structure prior to our survey is presumed to be **3X**. Based on visual observations of the exposed surfaces, the transite wall (exterior), transite ceiling, concrete floor, and wood stud frame were noted to be free of suspect MC materials. In

addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 90-J-1 could begin as soon as practical.

Building 40-E

Building 40-E is a one-story pour-in-place concrete structure, approximately 824 square feet. No historical record searches were available for this building; however, our observations noted it to be an electrical/storage and restroom. Current contamination status for this structure prior to our survey was presumed as **3X**. Based on visual observations of the exposed surfaces, the concrete wall (exterior), corrugated metal roof, steel column, concrete ceiling, steel beam, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 40-E could begin as soon as practical.

Building 37-F

Building 37-F is a one-story wood frame structure, approximately 945 square feet. No historical record searches were available for this building; however, our observations noted it to be a walkway/garage structure. Current contamination status for this structure prior to our survey was presumed as **3X**. Based on visual observations of the exposed surfaces, the corrugated metal wall (exterior), foam wall (interior), steel beam, wood stud frame (interior cavity), and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 37-F could begin as soon as practical.

Building 39-F

Building 39-F is a one-story steel frame structure, approximately 300 square feet. No historical record searches were available for this building; however, our observations noted it to be a garage structure. Current contamination status for this structure prior to our survey was presumed as **3X**. Based on visual observations of the exposed surfaces, the corrugated metal wall (exterior), steel beam and column, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 39-F could begin as soon as practical.

Building 42-E (Photo Nos. 56 & 57)

Building 42-E is a one-story steel frame structure, approximately 800 square feet. No historical record searches were available for this building; however, our observations noted it to be a Propellant Plant structure. Current contamination status for this structure prior to our survey was presumed as **3X**. Based on visual observations of the exposed surfaces, the corrugated metal wall (exterior), steel wall (interior), steel beam, concrete trench, ductwork, fire suppression piping and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 42-E.

Building 37-E

Building 37-E is a one-story poured-in-place concrete structure, approximately 824 square feet. No historical record searches were available for this building; however, our observations noted it to be an electrical/storage and restroom. Current contamination status for this structure prior to our survey was presumed as **3X**. Based on visual observations of the exposed surfaces, the concrete wall (exterior), corrugated metal roof, steel column, concrete ceiling, steel beam, fire suppression piping, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. However, fire suppression piping will need to be decontaminated and any floor drains be capped prior to general demolition of Building 37-E.

Building 38-D

Building 38-D is a one-story wood frame structure, approximately 945 square feet. No historical record searches were available for this building; however, our observations noted it to be a walkway/garage structure. Current contamination status for this structure prior to our survey was presumed as **3X**. Based on visual observations of the exposed surfaces, the corrugated metal wall (exterior), foam wall (interior), steel beam, wood stud frame (interior cavity), and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 38-D could begin as soon as practical.

Building 65-D

Building 65-D is a one-story wood frame structure, approximately 64 square feet. No historical record searches were available for this building; however, our observations noted it to be an electrical building. Current contamination status for this structure prior to our survey was presumed as **3X**. Based on visual observations of the exposed surfaces, the

transite wall (exterior), transite ceiling, exhaust fan, wood stud frame (interior cavity), and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 65-D could begin as soon as practical.

Building 26-B-1

Building 26-B-1 is a one-story wood frame structure, approximately 250 square feet. No historical record searches were available for this building; however, our observations noted it to be a toilet. Current contamination status for this structure prior to our survey was presumed as **3X**. Based on visual observations of the exposed surfaces, the brick wall (exterior), gypsum wallboard, plaster ceiling, steel beam and column, and concrete floor were noted to be free of suspect MC materials. In addition, no MC was detected by EXPRAY testing. No live OE/UXO was observed within the building structure during this survey. Based on our visual observations, assessment and confirmatory EXPRAY testing, we rate this building as **5X**. As no MC materials were observed or detected by testing, general demolition of Building 26-B-1 could begin as soon as practical.

OE RESPONSE ACTION PLAN

Based on visual observations and assessment and the results of our EXPRAY field test analysis and QA/QC laboratory analysis, the following buildings were found to contain MC residue traces and rated as **3X** contamination:

Building 29-A	Building 26-E	Building 54-F
Building 54-F-1	Building 54-G	Building 61-I
Building 62-I	Building 68-F	

These buildings will need to be decontaminated to a degree of less than XXXXX prior to demolition. A XXXXX-Five X's decontamination indicate the equipment or facilities have been completely decontaminated, are free of hazards and may be released for general use by the public. EFI has prepared the following decontaminating procedures in general accordance with Department of the Army Technical Bulletin "Decontamination of Facilities and Equipment" (TB 700-4), October 1978 to provide guidance for decontamination of facilities and equipment exposed to MC contamination for the purpose of demolishing these facilities and not for the re-sale or re-use to the general public.

INDIVIDUAL BUILDING OE RECOMMENDED ACTION PLAN

Building 29-A

Building 29-A tested positive for traces residual amount of **Groups A explosives** residue located on the transite wall and ductwork. We recommend physical removal methods for the explosives residue contaminants from within the building. Further detail of each decontamination process is presented in the "Decontamination Procedures" section of the report.

EFI
Engineering and Fire Investigations

9700 Richmond
Suite 201
Houston, TX 77042
Tel: 866-464-2127
Fax: 713-975-7336
www.efiinfo.com

December 16, 2003

Mr. Michael Luczak
ARC Abatement, Inc.
6630 Roxburgh Drive, Suite 130
Houston, Texas 77041

Subject: **TRANSMITTAL OF ANALYTICAL RESULTS No. 6**
Longhorn Army Ammunition Plant – (TCLP Testing, Phase II)
Karnack, Texas 77055
EFI PROJECT NO. 98410-13709

Dear Mr. Luczak:

Engineering and Fire Investigations (EFI) has completed sampling and analysis for Toxicity Characteristic Leaching Procedure (TCLP) of demolition debris sample suspect for lead-based paint from a total of 35 buildings. These samples were collected as composite samples (i.e. building materials used in their construction) per building. This work was performed at the verbal request of Mr. Michael Luczak of ARC Abatement, Inc.

The samples were analyzed by our subcontract laboratory (EMSL Analytical in Westmont, New Jersey) using test methods SW846-1311/7420 to determine leachable concentrations of lead by use of Flame Atomic Absorption.

Based on the results TCLP lead concentrations of the 35 buildings tested (Bldgs. 413-A, 704-D, 707-G, 707-J, 713, 722E, 722F, 715, 205, 201, 203, 204, 713B, 744-A, 272, 813, 814, 815, 4-Y-2, 3Y, 29Y, 32Y, 48Y, 45Y, 34Y, 38Y, 40Y, TS-87, 18-Y-1, 18Y, 16Y, 16-Y-1, 13-Y-1, 16-Y-2 and Y-Area Walkways) were below 5mg/l. Environmental Protection Agency (EPA) defines that waste materials with concentrations of leachable lead below 5 mg/l as non-hazardous and can be disposed of as construction materials.

A complete analytical report is presented in Appendix A. In addition, we have included the chain of custody for the samples collected in Appendix B.

We appreciate the opportunity to provide consulting services to ARC Abatement, Inc. in this matter. If there are any questions, please contact us.

Sincerely,
ENGINEERING AND FIRE INVESTIGATIONS

Cuong Nguyen
Project Manager

Lee A. Burckle, P.E.
Branch Manager

Attachments: Appendix A – Laboratory Result Sheets
Appendix B – Chain Of Custody

C:\Cuong\projects 2003\Longhorn Army Ammunition Plant\TCLP Sampling - Transmpl6.doc

EFI
Engineering and Fire Investigations

9700 Richmond
Suite 201
Houston, TX 77042
Tel: 866-464-2127
Fax: 713-975-7336
www.efiinfo.com

May 3, 2004

Mr. Michael Luczak
ARC Abatement, Inc.
6630 Roxburgh Drive, Suite 130
Houston, Texas 77041

Subject: **TRANSMITTAL OF ANALYTICAL RESULTS**
Longhorn Army Ammunition Plant – (Power Wash Rinse Sate Water Testing)
Karnack, Texas 77055
EFI PROJECT NO. 98410-13709

Dear Mr. Luczak:

Engineering and Fire Investigations (EFI) has completed sampling and analysis of rinse sate water collected from the decontamination power washing activities of UXO contaminated buildings. The fluid samples were collected from two 50-gallons storage drums located on-site at the Longhorn Army Ammunition Plant located in Karnack, Texas. This work was performed at the verbal request of Mr. Michael Luczak of ARC Abatement, Inc.

The samples were analyzed by our subcontract laboratory (ANA-LAB) in Kilgore, Texas using the following test methods to analyze for constituents originally identified in our confirmatory sampling for munitions constituents of the buildings in the "Y" & "T" Area.

Requested Lab Test	Test Method
Explosives Soil Expansion Code	SW 8330
Explosives Extraction	SW 8330
Nitrate-Nitrogen, Total	EPA Method 9256
Silver	EPA Method 6010B
Barium	EPA Method 6010B
Potassium	EPA Method 6010B
Sodium	EPA Method 6010B
Strontium	EPA Method 6010B
Liquid – Metal Digestion	EPA Method 3010A
Ammonia Distillation	EPA Method 350.2
Ammonia Nitrogen	EPA Method 350.1

The analysis results of the rinse sate water samples collected from two 50-gallons drum showed that the explosive constituents (2,4-Dinitrotoluene, 2,6 Dinitrotoluene, 2-Amino-4,6 Dinitrotoluene, 2-Nitrotoluene, 3-Nitrotoluene, 4-Amino-2,6 Dinitrotoluene, 4-Nitrotoluene, 1,3-Dinitrotoluene (DNB), HMX, Total, Nitrobenzene, RDX, 1,3,5-Trinitrobenzene, 2,4,6-Trinitrotoluene, Tetryl); and RCRA metals (Silver) were below the laboratory detection limits; RCRA metals (Barium) is within regulatory limits for water discharge per EPA 40 CFR 264 Appendix 9. The Potassium, Sodium,

EFI
Engineering and Fire Investigations

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May 6, 2004

Mr. Michael Luczak
ARC Abatement, Inc.
6630 Roxburgh Drive, Suite 130
Houston, Texas 77041

Subject: **TRANSMITTAL OF ANALYTICAL RESULTS**
Longhorn Army Ammunition Plant – (EXPRAY CONFIRMATORY RE-TEST)
Karnack, Texas 77055
EFI PROJECT NO. 98410-13709

Dear Mr. Luczak:

Engineering and Fire Investigations (EFI) has completed EXPRAY confirmatory re-test of the **3X** rated buildings located in the "Y" & "T" Area performed following completion of the UXO decontamination process. The scope of our confirmatory testing included testing the remaining concrete floors, wall systems and fire suppression systems in the "Y" & "T" Area and remaining metal debris (structural steel framing and equipment) in the lay-down yard awaiting for salvage.

EXPRAY confirmatory re-test results showed that munitions constituents were not detected in the buildings. Based on these results, these building structures and metal debris components can be reclassified as **5X**-ratings.

Individual Confirmatory Re-Test Data Sheets for each building, the components tested and the EXPRAY results are presented in Appendix A.

We appreciate the opportunity to provide consulting services to ARC Abatement, Inc. in this matter. If there are any questions, please contact us.

Sincerely,

ENGINEERING AND FIRE INVESTIGATIONS

Cuong Nguyen
Project Manager

Lee A. Burckle, P.E.
Branch Manager

Attachments: Appendix A – Confirmatory Re-Test Data Sheets

CN/ln/s:\projects 2004\Longhorn Army Ammunition Plant\EXPRAY Confirmatory Re-Test – Transmit.doc

EFI®

Engineering and Fire Investigations

FACSIMILE TRANSMITTAL SHEET

ENGINEERING AND FIRE INVESTIGATIONS
9700 RICHMOND, SUITE 201
HOUSTON, TEXAS 77042
(713) 975-7031
(713) 975-7336 FAX

To:	Brian Gebhart	From:	Alex Nguyen
Company:	ARMY	Date Transmitted:	5/7/04
Fax Number:	(309) 782-1379	Telephone:	(713) 975-7031
Subject:	Transmittal of Analytical Results	Fax Number:	(713) 975-7336
No. pages transmitted (incl. cover):	5	Hard Copy to Follow:	Yes ☐ No ☑

cc: Michael Luczak

Urgent ☐ For Your Use ☑ Please Comment ☐ Please Reply ☐ For Review ☐ Please Recycle ☐

Per your request, I am transmitting the following "Transmittal of Analytical Results" for the EXPRAY re-confirmatory testing, Toxicity Characteristic Leaching Procedures (TCLP) for Lead, and Power Wash Rinsate Water testing performed for the "Y" and "T" Areas at the Longhorn Army Ammunition Plant. The TCLP samples for analysis of lead in the "T" area have been submitted to the lab for analysis; results of these tests should arrive by Monday, at which I will transit the results to you. Please call me if you have any questions.

Thanks

Alex

CONFIDENTIALITY NOTICE: This message is intended only for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original message to us at the above address via the U.S. Postal Service. Thank you.

If transmission is not received in good order, please call 713-975-7031

TABLE 1
PROGRESS SCHEDULE
LONGHORN ARMY AMMUNITION PLANT

PLANT 2	TS-87	Portable Guard Shack						10% of Portable Guard Shack (1 Sample)		N/A, Per Meeting of 6/29/04	
PLANT 2	TS-45	Portable Guard Shack									
PLANT 2	TS-69	Portable Guard Shack									
PLANT 2	TS-74	Portable Guard Shack									
PLANT 2	TS-38	Portable Guard Shacks									
PLANT 2	T-1	Toilet						10% of Toilet (1 Sample)			
PLANT 2	T-2	Toilet									
PLANT 2	T-3	Toilet									
PLANT 2	727-R	Toilet									
PLANT 2	102	Change House						10% of Change House (1 Sample)			
PLANT 2	103	Change House									
PLANT 2	L-5	Transit Shed						10% of Transite Shed (1 Sample)			
PLANT 2	L-6	Transit Shed									
PLANT 2	207	Production						1 Sample			
PLANT 2	211-1	Lunch & Break Room						10% of Lunch Room (1 Sample)			
PLANT 2	211-2	Lunch & Break Room									
PLANT 2	LR-1	Lunch Room									
PLANT 2	S-1	Warehouse, General Purpose						10% of Warehouse (1 Sample)			
PLANT 2	S-2	Warehouse, General Purpose									
PLANT 2	S-3	Warehouse, General Purpose									
PLANT 2	S-4	Warehouse, General Purpose									
PLANT 2	101	Admin Bldg.						10% of Admin. (1 Sample)			
PLANT 2	M-1	Admin., General Purpose									
PLANT 2	M-2	Admin., General Purpose									

00122093

00122094

Retur: o ARC Abatement Inc.
6630 Roxburgh Dr.,Suite 130
Houston, Texas 77041

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. Box 13087
Austin, Texas 78711-3087

04-HA33

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: n/a
Manifest Document No.:
2. Page 1 of
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
US Army-Technical Support Office
1 Rock Island
Rock Island, Il 61299
Longhorn Army Plant
Hwy 43 @ Spur 449
Karnack, Texas 75671
4. Generator's Phone (309) 782-1387

A. State Manifest Document Number: 3243338
B. State Generator's ID: TDH-04

5. Transporter 1 Company Name: Olympic Waste Services
6. US EPA ID Number: n/a
C. State Transporter's ID: 40-0205
D. Transporter's Phone: 903-984-8621

7. Transporter 2 Company Name: N/A
8. US EPA ID Number: n/a
E. State Transporter's ID: n/a
F. Transporter's Phone: n/a

9. Designated Facility Name and Site Address
Pinehill Landfill
Hwy 31 @ I-20
Kilgore, Texas 75663
10. US EPA ID Number: n/a
G. State Facility's ID: 1327-B
H. Facility's Phone: 903-984-3922

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, ID Number and Packing Group)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
	a. Friable Asbestos	510 BAGS 112 Pipe Double Poly		40cy	YDS	
	b. Non-Friable Asbestos				YDS	
	c.					
	d.					

J. Additional Descriptions for Materials Listed Above: 112078
K. Handling Codes for Wastes Listed Above: M-132

15. Special Handling Instructions and Additional Information
Disposal must be in accordance with TDH MSWMR 25TAC 325.136 (b)(6) or other handling plan approved in writing by TDH

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: For ~~Owner~~
Signature:
Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: For ~~ARC~~ Owner LANIS RIEGER
Signature: Lanis N. Rieger
Date: Month 2 Day 28 Year 05

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: For Pinehill FRED Scott
Signature: FRED Scott
Date: Month 3 Day 1 Year 05

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Christie Green
Signature: Christie Green
Date: Month 3 Day 01 Year 05

GENERATOR / TRANSPORTER / FACILITY

TCEQ-0311 (Rev. 09/01/02) White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

00122095

Return to ARC Abatement Inc.
6630 Roxburgh Dr.,Suite 130
Houston, Texas 77041

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Austin, Texas 78711-3087

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Form approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: n/a
Manifest Document No.:
2. Page 1 of
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
US Army-Technical Support Office
1 Rock Island
Rock Island, Il 61299
Longhorn Army Plant
Hwy 43 @ Spur 449
Karnack, Texas 75671

4. Generator's Phone (309) 782-1387

A. State Manifest Document Number: 3243338
B. State Generator's ID: TDH-04

5. Transporter 1 Company Name: Olympic Waste Services
6. US EPA ID Number: n/a
C. State Transporter's ID: 40-0205
D. Transporter's Phone: 903-984-8621

7. Transporter 2 Company Name: N/A
8. US EPA ID Number: n/a
E. State Transporter's ID: n/a
F. Transporter's Phone: n/a

9. Designated Facility Name and Site Address
Pinehill Landfill
Hwy 31 @ I-20
Kilgore, Texas 75663
10. US EPA ID Number: n/a
G. State Facility's ID: 1327-B
H. Facility's Phone: 903-984-3922

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, ID Number and Packing Group)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
	a. Friable Asbestos	510 BAGS 112 PIPE DOUBLE	BLY	40cy	YDS	
	b. Non-Friable Asbestos				YDS	
	c.					
	d.					

J. Additional Descriptions for Materials Listed Above: 112078

K. Handling Codes for Wastes Listed Above: M-132

15. Special Handling Instructions and Additional Information
Disposal must be in accordance with TDH MSWMR 25TAC 325.136 (b)(6) or other handling plan approved in writing by TDH

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: For ~~Owner~~
Signature:
Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: For ~~AWE~~ Owner LANIS RIEGER
Signature: Lanis N. Rieger
Date: Month 2 Day 28 Year 05

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: For Pinehill FRED Scott
Signature: FRED Scott
Date: Month 3 Day 1 Year 05

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Christie Green
Signature: Christie Green
Date: Month 3 Day 01 Year 05

GENERATOR
TRANSPORTER
FACILITY

TCEQ-0311 (Rev. 09/01/02) White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

Return to ARC ABatement Inc
30 Roxburgh Dr.,Suite 130
Houston, Texas 77041

00122096

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P.O. Box 13087
Austin, Texas 78711-3087

04-HA33

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Form approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: N/A
Manifest Document No.:
2. Page 1 of
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
US Army
DAIM-BO-O, 1 Rock Island
Rock Island, IL 61299
Longhorn Army Ammunition Plant
Hwy 43 @ Spur 449
Karnack, Texas 75671

4. Generator's Phone (309-)782-1387

A. State Manifest Document Number: 3238723
B. State Generator's ID: TDH-04

5. Transporter 1 Company Name: ARC Abatement Inc
6. US EPA ID Number: N/A
C. State Transporter's ID: 40-0105
D. Transporter's Phone: 713-896-0668

7. Transporter 2 Company Name: Bayou City Waste 10234 Lucore St Houston TX 77014
8. US EPA ID Number: N/A
E. State Transporter's ID: 86666
F. Transporter's Phone: 713-864-6540

9. Designated Facility Name and Site Address
BFI McCarty Road Landfill
11013 Old Beaumont Highway
Houston, Texas 77078
10. US EPA ID Number: N/A
G. State Facility's ID: 261A
H. Facility's Phone: 713-675-6101

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, ID Number and Packing Group)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
	a. Friable Asbestos	310 B. 125 Pile		40	YDS	
	b. Non-Friable Asbestos				YDS	
	c.					
	d.					

J. Additional Descriptions for Materials Listed Above
~~01494~~ ~~01493~~ Y485434

K. Handling Codes for Wastes Listed Above
M-132

15. Special Handling Instructions and Additional Information
Disposal must be in accordance with TDH MSWMR 25TAC 325.136 (b)(6) or other handling plan approved in writing by TDH

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: For Owner LANIS RIEGER
Signature: Lanis N Rieger
Month 10 Day 14 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: For ARC
Signature:
Date: Month Day Year

OCT 18 2004

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: For Bayou City OSCAR GARZA
Signature:
Date: Month 10 Day 17 Year 04

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: M Valle Jones
Signature: M Valle Jones
Date: Month 10 Day 18 Year 04

-0311 (Rev. 09/01/02) White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

Return to ARC ABatement Inc 00122097
30 Roxburgh Dr., Suite 130
Houston, Texas 77041

04-HA33

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. Box 13087
Austin, Texas 78711-3087

46280

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: N/A
Manifest Document No.:
2. Page 1 of
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
US Army
DAIM-BO-O 1 Rock Island
Rock Island, IL 61299
Longhorn Army Ammunition Plant
Hwy 43 @ Spur 449
Karnack, Texas 75671

4. Generator's Phone (309) 782-1387

A. State Manifest Document Number: 3238722
B. State Generator's ID: TDH-04

5. Transporter 1 Company Name: ARC Abatement Inc
6. US EPA ID Number:
C. State Transporter's ID: 40-0105
D. Transporter's Phone: 713-896-0668

7. Transporter 2 Company Name: Bayou City Waste
8. US EPA ID Number:
E. State Transporter's ID: 86666
F. Transporter's Phone: 713-864-6540

9. Designated Facility Name and Site Address
BFI McCarty Road Landfill
11013 old Beaumont Highway
Houston, Texas 77078
10. US EPA ID Number: N/A
G. State Facility's ID: 261A
H. Facility's Phone: 713-675-6101

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, ID Number and Packing Group)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
	a. Friable Asbestos	365 BAGS 62 TAC		40	YDS	
	b. ~~Non-Friable Asbestos~~				YDS	
	c. RQ abestos 9, NA 2212, PG III					
	d. Y 425 434					

J. Additional Descriptions for Materials Listed Above
01494
01493

K. Handling Codes for Wastes Listed Above
M-132

15. Special Handling Instructions and Additional Information
Disposal must be in accordance with TDH MSWMR 25TAC 325.136 (b)(6) or other handling plan approve din writing by TDH

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Printed/Typed Name: For Owner LANIS RIEGER
Signature: Lanis Rieger
Month Day Year: 9 20 04

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: For ~~ARC~~ BAYOU CITY LUIS PEREC
Signature:
Date: 9 21 04

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: For ~~Bayou City~~
Signature:
Date: SEP 2 1 2004

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: [signature]
Signature: [signature]
Date: 9 21 04

TCEQ-0311 (Rev. 09/01/02) White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

00122098

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

Form approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document Number: 02852549

B. State Generator's ID: TDH-04

5. Transporter 1 Company Name | 6. US EPA ID Number

C. State Transporter's ID: 86666

D. Transporter's Phone: 713-664-6540

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Transporter's ID: n/a

F. Transporter's Phone: n/a

9. Designated Facility Name and Site Address | 10. US EPA ID Number

G. State Facility's ID: 261A

H. Facility's Phone: 713-675-6101

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, ID Number and Packing Group)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
	a					
	b.					
	c.					
	d.					

J. Additional Descriptions for Materials Listed Above

01494
01493

K. Handling Codes for Wastes Listed Above

D-81

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations.
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Printed/Typed Name | Signature | Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials | Date

Printed/Typed Name | Signature | Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials | Date

Printed/Typed Name | Signature | Month Day Year

19. Discrepancy Indication Space

FEB

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. | Date

Printed/Typed Name | Signature | Month Day Year

GENERATOR

TRANSPORTER

FACILITY

TNRCC-0311 (Rev. 07-01/97) White - original Pink-TSD Facility Yellow-Transporter Green Generator's first copy

00122099

Return to ARC Abatement, Inc.
5630 Roxburgh Dr., Suite 130
Houston, Texas 77041

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. Box 13087
Austin, Texas 78711-3087

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No.

2. Page 1 of

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
US Army Ind Operation-BRAC Longhorn Army Ammunition Plant
DAIM-BO-O,1 Rock Island Arsenal Hwy 43 @ Spur 449
Rock Island,IL 61229 Karnack, Texas 75671

4. Generator's Phone (309)782-1387

A. State Manifest Document Number: 3271414

B. State Generator's ID: TDH -04

5. Transporter 1 Company Name: Bayou City Waste 10234 Lawore Houston TX 77017

6. US EPA ID Number

C. State Transporter's ID: 86666

D. Transporter's Phone: 713-864-6540

7. Transporter 2 Company Name: n/a

8. US EPA ID Number

E. State Transporter's ID: n/a

F. Transporter's Phone: n/a

9. Designated Facility Name and Site Address
BFI McCarty Road Landfill
11013 old Beaumont Highway
Houston, Texas 77078

10. US EPA ID Number

G. State Facility's ID: 261A

H. Facility's Phone: 713-675-6101

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, ID Number and Packing Group)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
	a. Friable Asbestos			40	YDS	
	b. Non-Friable Asbestos				YDS	
	c.					
	d.					

J. Additional Descriptions for Materials Listed Above
01494
01493

K. Handling Codes for Wastes Listed Above
M-132

15. Special Handling Instructions and Additional Information
Disposal must be in accordance with TDH MSWMR 25TAC 325.136 (b)(6) or other handling plan approved in writing by TDH.

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GENERATOR

Printed/Typed Name: For owner JANIS RIEGER | Signature: Janis N. Rieger | Month 4 Day 12 Year 04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials | Date

Printed/Typed Name: For ARC | Signature | Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials | Date

Printed/Typed Name: For Bayou City | Signature | Month 04 Day 14 Year 04

FACILITY

19 Discrepancy Indication Space
RQ Asbestos 9 NA2212 PG III

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Date

Printed/Typed Name: J. Wilson | Signature: J. Wilson | Month 4 Day 14 Year 04

TCEQ-0311 (Rev. 09/01/02) White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

INS

ONYX ENVIRONMENTAL SERVICES

Onyx

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM PHASE IV

Page 1 of 1

Generator Name Longhorn Ammunition Plant EPA ID # _____ State Manifest No. WI K278000

1. If waste is a wastewater (see 40 CFR 268.2) place "w" next to the applicable code(s) Profile # _____

2. CODES WITH SUBCATEGORIES (place appropriate letter from section 8 before each code that applies) (See 40 CFR 268 for details)

___ D001 Hi-TOC
___ D001 Except Hi-TOC
___ D003 Reactive Cyanide
___ D003 Reactive Sulfide
___ D003 Explosive
___ D003 Water Reactives
___ D003 Unexp Ord. Emp
___ C003 Other Reactives
___ C003 Batteries
___ D008 Lead acid batteries
___ D009 Organic Hg > 260ppm
___ D009 Inorg. Hg > 260
___ D009 Hg < 260
___ F025 Light ends
___ F025 Spent filter
___ K088 Hydrated
___ K088 Anhydrous
___ K069 Calcium Sulfate
___ K069 Not Calcium Sulfate
___ K071 Rmerc Res.
___ K071 Not Rmerc Res
___ K106 Lo Rmerc Res.
___ K106 Not Rmerc Res.
___ K106 > 260 ppm Hg
___ P047 Salts
___ P047 Nonsalts
___ P065 Lo Inc. Res.
___ P065 Lo RMERC Res.
___ P065 Not Inc/RMERC Res.
___ P065 Hi Inc/RMERC Res.
___ P092 Lo Inc. Res.
___ P092 Lo RMERC Res.
___ P092 Not Inc/RMERC Res.
___ P092 Hi Inc/RMERC Res.
___ U151 Lo RMERC Res.
___ U151 Lo Not RMERC Res
___ U151 Hi Hg
___ D240 2, 4 D
___ D240 2, 4 esters & Salts

The subcategory for D018-D043 waste is "treated in nonCWA/nonSDWA facility" Unless the following box is checked: ☐ "treated in CWA/SDWA facility"

3. COMMON CODES (Place appropriate letter from section 8 before each code that applies)

___ D002	___ P012	___ P030	___ P051	___ P098	___ P105	___ P205	___ F006	___ F007	___ F008	___ F009	___ F010	___ F011	___ F012	___ F019	___ F039
___ D004	___ D005	___ D006	___ D007	___ D008	___ D009	___ D010	___ D011	___ D012	___ D013	___ D014	___ D015	___ D016	___ D017	___ D018	___ D019
___ D020	___ D021	___ D022	___ D023	___ D024	___ D025	___ D026	___ D027	___ D028	___ D029	___ D030	___ D031	___ D032	___ D033	___ D034	___ D035
___ D036	___ D037	___ D038	___ D039	___ D040	___ D041	___ D042	___ D043	___ F001	___ F002	___ F003	___ F004	___ F005	___ U002	___ U003	___ U009
___ U007	___ U044	___ U061	___ U072	___ U080	___ U103	___ U117	___ U122	___ U129	___ U136	___ U154	___ U188	___ U213	___ U220	___ U226	___ U237
															___ K088

ADDITIONAL CODES (Enter all codes not identified above which are associated with waste)

4. USEPA HAZARDOUS WASTE CODE(S)	5. TREATMENT STANDARDS FOR NON-PHASE II STATES (INDICATE THE APPLICABLE TREATMENT STANDARD 268.41, 268.43 OR SPECIFIED TECHNOLOGY BELOW)	6. HOW MUST THE WASTE BE MANAGED? ENTER THE LETTER FROM BELOW
D002	0.75 mg/l TLCP and meet 268.48 Standard	A

To identify F039 or UHCs managed in non-CWA, use the "F039/Underlying Hazardous Constituents Form" provided and check here: ☐
If no UHCs are present upon generation check here: ☐ Check here if disposal facility will check for all UHCs ☐ (i.e. no UHC form required)
To list additional EPA waste code(s), use the supplemental sheet and check here: ☐ In lieu of supplemental sheet you may use multiple copies of this form

7. SOLVENT CONSTITUENTS (F001 - F005) Check here if disposal facility will check for all spent solvents ___

___ Acetone
___ Carbon Tetrachloride
___ Cyclohexanone
___ Ethyl benzene
___ Methylene chloride
___ 2 Nitropropane
___ 1,1,1 Trichloroethane
___ Trichloromonofluoromethane
___ Benzene
___ Chlorobenzene
___ o-Dichlorobenzene
___ Ethyl ether
___ Methyl ethyl ketone
___ Pyridine
___ 1, 1, 2-Trichloroethane
___ Xylenes
___ n-Butyl alcohol
___ O-Cresol
___ 2-Ethoxyethanol
___ Isobutanol
___ Methyl isobutyl ketone
___ Tetrachloroethylene
___ 1, 1, 2-Trichloro, 1, 2, 2-trifluoroethane
___ Carbon disulfide
___ Cresols (m&p)
___ Ethyl acetate
___ Methanol
___ Nitrobenzene
___ Toluene
___ Trichloroethylene

8. (States authorized by EPA to manage the LDR program may have regulatory citations different from the 40 CFR citations listed below. Where these regulatory citations differ, your certification will be deemed to refer to those state citations instead of the 40 CFR citations.)

A. or ✓ **RESTRICTED WASTE REQUIRES TREATMENT**
This waste must be treated to the applicable treatment standards set forth in 40 CFR Part 268.40.
XXX For Hazardous Debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR 268.45."

B.1 **RESTRICTED WASTE TREATMENT TO PERFORMANCE STANDARDS**
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR 268.40 without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment."

B.2 **(CERTIFICATION REMOVED BY PHASE IV)**

B.3 **GOOD FAITH AND ANALYTICAL CERTIFICATION - FOR INCINERATED ORGANICS**
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion units as specified in 268.42, Table 1. I have been unable to detect the nonwastewater organic constituents, despite having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.4 **DECHARACTERIZED WASTE REQUIRES TREATMENT FOR UNDERLYING HAZARDOUS CONSTITUENTS**
"I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

C. **RESTRICTED WASTE SUBJECT TO A VARIANCE**
This waste is subject to a national capacity variance or treatability variance, or a case-by-case extension. Enter the effective date of prohibition in column 5 above.
☐ For hazardous debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR 268.45."

D. **RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT**
"I certify under penalty of law that I have personally examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment."

E. **WASTE NOT CURRENTLY SUBJECT TO PART 268 RESTRICTIONS**
This waste is a newly identified waste that is not currently subject to any 40 CFR Part 268 restrictions.

I hereby certify that all information in this and all associated documents is complete and accurate, to the best of my knowledge and information

Signature [signature]

Title Array Forest Tech. 5-25-05

JUN-17-2005 FRI 10:23 LUMINAIRE RECYCLERS 2.304/034 00122101

TOPS Snap off CARBONLESS FORM 3841

NO CARBON REQUIRED

BILL OF LADING

TRIPLICATE

ALTERNATE STRAIGHT BILL OF LADING—SHORT FORM—ORIGINAL—NOT NEGOTIABLE

Name of Carrier: Luminaire Recyclers inc.

Carrier's No.

Date: 5-25-05

Shipper No: 007131

TO Consignee: - Same -

Street: 2161 University Ave W

Destination: St. Paul, MN

Zip Code: 55114

FROM Shipper: Longhorn Amunition Plant, Hwy 43 @ Spur 449, Karnare, TX 75661

Emergency Response Phone No.

Route:

Vehicle No.

* Arc Abatement

No. Shipping Units	HM	Kind of Package, Description of Articles, Special Marks and Exceptions	Weight (Subj. to Corr.)	RATE	✓	CHARGES
		4' Lamps to recycle	(500)			

REMIT C.O.D. TO: ADDRESS

C.O.D. AMT.

C.O.D. FEE: PREPAID ☐ COLLECT ☐

TOTAL CHARGES: $

If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight"

NOTE: Where the rate is dependent on value shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding

$ _____ per _____

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other charges.

_____ (Signature of Consignor)

FREIGHT CHARGES

Check Appropriate Box:

☐ Freight prepaid ☐ Collect

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of receipt by the carrier of the property described in the Original Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property over all or any portion of said route to destination and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classifications in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

"This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation."

Lavis Riggen Shipper, Per [signature] Agent, Per _____

Permanent post office address of shipper. * Mark with "X" to designate Hazardous Material as defined in Title 49 of Federal Regulations.

For further details on TRANSPORTING HAZARDOUS MATERIALS see Federal Regulations 49 CFR, Part 172.

TOPS FORM No. 3841 Printed in the U.S.A.

1

EE TRUCTIONS ON REVERSE SIDE OF COPY 6.

STATE OF WISCONSIN

Chapter 291, Wis. Stats.
Form 4400-56P Rev. 1-99

ALL COPIES MUST BE LEGIBLE, PLEASE TYPE

State of Wisconsin
Department of Natural Resources
Bureau of Waste Management
Box 8094
Madison, WI 53708

FOR DNR USE ONLY

orm designed for use on elite (12-pitch) typewriter.

Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No. TX6213820529	Manifest Document No. 78000	2. Page 1 of 2	Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Longhorn Amunition Plant
Hwy. 43 @ Spur 449 Karnack, TX 75661
Site Location If Different

4. Generator's Phone 713 446-3815

A. State Manifest Document Number: WI X278000
B. State Generator's ID:
C. State Transporter's ID:
D. Transporter's Phone 651-629-0079
E. State Transporter's ID:
F. Transporter's Phone 763-786-3660
G. State Facility's ID:
H. Facility's Phone 262-255-6655

5. Transporter 1 Company Name: Luminaire Recyclers, Inc.
6. US EPA ID Number: MNR000000588

7. Transporter 2 Company Name: Onyx Environmental Services, Inc.
8. US EPA ID Number: NJD080631369

9. Designated Facility Name and Site Address
Onyx Environmental Services, Inc.
W124 N 9451 Boundry Road
Menomonee Falls, WI 53051
10. US EPA ID Number: WID003967148

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. RQ Hazardous Waste Solid, N.O.S.,9, UN3077, PGIII, D008	018	DF	6300	P	[illegible]
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Guide #171
Emergency Response # 800-535-5053

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and according to the requirements of the Wisconsin Department of Natural Resources. If I am a large quantity generator, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment;

OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name & Position Title	Signature	Date (Month Day Year)
LANIS RIEGER	[signature]	05 25 2005

17. TRANSPORTER 1 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title	Signature	Date (Month Day Year)
Daniel Keeler Driver/OPS MGR.	[signature]	05 25 2005

18. TRANSPORTER 2 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title	Signature	Date (Month Day Year)
Joel [illegible] Project Manager	[signature]	06 13 2005

19. Discrepancy Indication Space

20. FACILITY OWNER OR OPERATOR: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name & Position Title	Signature	Date (Month Day Year)

A Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

Copy Distribution:
1 — Generator send to Wis. DNR
2 — Generator retain
3 — Facility send to Wis. DNR
4 — Facility retain
5 — Facility send to Generator
6 — Transporter retain

Emergency 24 Hour Assistance and Spill Reporting
Telephone Number: (800) 943-0003 GENERATOR SEND TO WI DNR

COPY 1 - Copies 1 & 3 mail to Wis. DNR at above address.

TEXAS DEPARTMENT OF STATE HEALTH SERVICES

EDUARDO J. SANCHEZ, M.D., M.P.H.
COMMISSIONER

1100 W. 49th Street • Austin, Texas 78756
1-888-963-7111 • http://www.dshs.state.tx.us

March 17, 2006

Rose Zeiler, Site Manager
P.O. Box 220
Ratcliff, AR 72951

Re: Site Meeting on March 15, 2006 to Determine the Condition of Transite at Demolition Landfill

Dear Ms. Zeiler:

During the referenced meeting at the Longhorn Army Ammunition Plant we saw no violation of the National Emission Standards for Hazardous Air Pollutants (NESHAP). Mark Ellis and I observed 3 small pieces of transite that had broken off of the transite panels abated from numerous buildings at the plant. The pieces were intact and appeared to have been broken off of the original panels incidental to the removal and transporting of the panels to the disposal site. EPA addresses this issue in their Determination Detail control number A930015. In this letter, they are answering a question concerning Category II ACM and explain "If, after a demolition, material left in the facility according to 61.145(c)(1)(i) or (iv) is intentionally ground-up (such as by repeatedly running over the debris with a bulldozer to compact the material), then 61.150(a)(3) applies. The material must be adequately wetted and kept adequately wet during collection and transport to a site or facility operated in accordance with 61.154 or 61.155. However, if the bulldozer is moving the debris or picking it up to be put in a vehicle and inadvertently runs over Category I material, then it is not subject to the NESHAP standard."

Incidental breakage such as that incurred during the removal of the panels or during the loading and unloading of the material does not create Regulated Asbestos Containing Material (RACM) from Category II non-friable material. Rather intentional breakage, such as removal with a hammer or wreaking ball or compaction with a bulldozer, would create RACM and would subject the material to the requirements for proper wetting, bagging, and disposal in a landfill operated in accordance with 70 CFR §160.154.

Recommendation is that the material we observed be deposited in the landfill and covered with at least one foot of soil and vegetation planted to control erosion. This should prevent it from being crushed and made into RACM by vehicle and other traffic passing over it.

If I can be of any further help call me at 512-834-6770 x2453.

Sincerely,

Todd F. Wingler, P.E.
Regulatory Environmental Engineer
Environmental and Consumer Safety Section

cc: Tom Erny, TCEQ
Alan Etheredge, TCEQ

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8.0 MONITOR WELL PLUGGING REPORTS

00122106

STATE OF TEXAS PLUGGING REPORT for Tracking #63054

Owner:	**Longhorn Army Ammunition Plant**	Owner Well #:	**MW1**
Address:	**Hwy 143 @ Spur 449, LHAAP Karnack , TX 75661**	Grid #:	**35-24-7**
Well Location:	**Hwy 143 @ Spur 449, LHAAP Karnack , TX 75661**	Latitude:	**32° 39' 41" N**
Well County:	**Harrison**	Longitude:	**094° 07' 01" W**
		GPS Brand Used:	**Garmin e-trex**

Well Type: **Monitor**

HISTORICAL DATA ON WELL TO BE PLUGGED

Original Well Driller:	**Bobby Ragon**
Driller's License Number of Original Well Driller:	**58286**
Date Well Drilled:	**9/2/2009**
Well Report Tracking Number:	**193473**
Diameter of Well:	**2 inches**
Total Depth of Well:	**30 feet**

Date Well Plugged:	**4/14/2010**
Person Actually Performing Plugging Operation:	**Jeanie M. Odom**
License Number of Plugging Operator:	**58271**
Plugging Method:	**Tremmie pipe cement from bottom to top.**
Plugging Variance #:	**No Data**
Casing Left Data:	1st Interval: **2 inches diameter, From 10 ft to 30 ft** 2nd Interval: **No Data** 3rd Interval: **No Data**
Cement/Bentonite Plugs Placed in Well:	1st Interval: **From 0 ft to 30 ft; Sack(s)/type of cement used: 1.5 cement** 2nd Interval: **No Data** 3rd Interval: **No Data** 4th Interval: **No Data** 5th Interval: **No Data**

Certification Data:	The plug installer certified that the plug installer plugged this well (or the well was plugged under the plug installer's direct supervision) and that each and all of the statements herein are true and correct. The plug installer understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**ETTL Engineers & Consultants Inc. 1717 E. Erwin Tyler , TX 75702**

00122107

Plug Installer License Number:	**58271**
Licensed Plug Installer Signature:	**Jeanie M. Odom**
Registered Plug Installer Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Plugging Method Comments:	**No Data**

Please include the plugging report's tracking number (Tracking **#63054**) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

00122108

STATE OF TEXAS PLUGGING REPORT for Tracking #63057

Owner:	**Longhorn Army Ammunition Plant**	Owner Well #:	**MW2**
Address:	**Hwy 143 @ Spur 449, LHAAP Karnack , TX 75661**	Grid #:	**35-24-7**
Well Location:	**Hwy 143 @ Spur 449, LHAAP Karnack , TX 75661**	Latitude:	**32° 39' 45" N**
Well County:	**Harrison**	Longitude:	**094° 07' 04" W**
		GPS Brand Used:	**Garmin e-trex**

Well Type: **Monitor**

HISTORICAL DATA ON WELL TO BE PLUGGED

Original Well Driller:	**Bobby Ragon**
Driller's License Number of Original Well Driller:	**58286**
Date Well Drilled:	**9/1/2009**
Well Report Tracking Number:	**193475**
Diameter of Well:	**2 inches**
Total Depth of Well:	**28 feet**

Date Well Plugged:	**4/14/2010**
Person Actually Performing Plugging Operation:	**Jeanie M. Odom**
License Number of Plugging Operator:	**58271**
Plugging Method:	**Tremmie pipe cement from bottom to top.**
Plugging Variance #:	**No Data**
Casing Left Data:	1st Interval: **2 inches diameter, From 8 ft to 28 ft** 2nd Interval: **No Data** 3rd Interval: **No Data**
Cement/Bentonite Plugs Placed in Well:	1st Interval: **From 0 ft to 28 ft; Sack(s)/type of cement used: 1.5 cement** 2nd Interval: **No Data** 3rd Interval: **No Data** 4th Interval: **No Data** 5th Interval: **No Data**

Certification Data:	The plug installer certified that the plug installer plugged this well (or the well was plugged under the plug installer's direct supervision) and that each and all of the statements herein are true and correct. The plug installer understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**ETTL Engineers & Consultants Inc. 1717 E. Erwin Tyler , TX 75702**

00122109

Plug Installer License Number:	**58271**
Licensed Plug Installer Signature:	**Jeanie M. Odom**
Registered Plug Installer Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Plugging Method Comments:	**No Data**

Please include the plugging report's tracking number (Tracking **#63057**) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

00122110

STATE OF TEXAS PLUGGING REPORT for Tracking #63059

Owner:	**Longhorn Army Ammunition Plant**	Owner Well #:	**MW3**
Address:	**Hwy 143 @ Spur 449, LHAAP Karnack , TX 75661**	Grid #:	**35-24-7**
Well Location:	**Hwy 143 @ Spur 449, LHAAP Karnack , TX 75661**	Latitude:	**32° 39' 45" N**
Well County:	**Harrison**	Longitude:	**094° 07' 04" W**
		GPS Brand Used:	**Garmin e-trex**

Well Type: **Monitor**

HISTORICAL DATA ON WELL TO BE PLUGGED

Original Well Driller:	**Bobby Ragon**
Driller's License Number of Original Well Driller:	**58286**
Date Well Drilled:	**8/31/2009**
Well Report Tracking Number:	**193474**
Diameter of Well:	**2 inches**
Total Depth of Well:	**30 feet**

Date Well Plugged:	**4/14/2010**
Person Actually Performing Plugging Operation:	**Jeanie M. Odom**
License Number of Plugging Operator:	**58271**
Plugging Method:	**Tremmie pipe cement from bottom to top.**
Plugging Variance #:	**No Data**
Casing Left Data:	1st Interval: **2 inches diameter, From 0 ft to 0 ft** 2nd Interval: **No Data** 3rd Interval: **No Data**
Cement/Bentonite Plugs Placed in Well:	1st Interval: **From 0 ft to 30 ft; Sack(s)/type of cement used: 1.5 cement** 2nd Interval: **No Data** 3rd Interval: **No Data** 4th Interval: **No Data** 5th Interval: **No Data**

Certification Data:	The plug installer certified that the plug installer plugged this well (or the well was plugged under the plug installer's direct supervision) and that each and all of the statements herein are true and correct. The plug installer understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**ETTL Engineers & Consultants Inc. 1717 E. Erwin Tyler , TX 75702**

00122111

Plug Installer License Number:	**58271**
Licensed Plug Installer Signature:	**Jeanie M. Odom**
Registered Plug Installer Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Plugging Method Comments:	**No Data**

Please include the plugging report's tracking number (Tracking **#63059**) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

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9.0 DEED FOR LHAAP-19

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2013-000013785

*****DO NOT REMOVE THIS PAGE – IT IS A PART OF THIS INSTRUMENT*****

MISCELLANEOUS

5 Pages

FILED AND RECORDED – OPR	CLERKS NOTES
On: 11/14/2013 04:23 PM	
Document Number: 2013-000013785	
Receipt No: 1313735	
Amount: $ 28.00	
By: Ann Turner, **Deputy**	
Patsy Cox, County Clerk **Harrison County, Texas**	

COUNTY COURT
COUNTY OF HARRISON, TEXAS

STATE OF TEXAS
COUNTY OF HARRISON
I hereby certify that this instrument was filed on the date and time stamped hereon by me and was duly recorded in the Official Public Records of Harrison County, Texas.

Patsy Cox

Patsy Cox, Harrison County Clerk

Record and Return To:

AARON WILLIAMS
1645 SOUTH 100 FIRST EAST AVE

TULSA, OK 74128

STATE OF TEXAS
HARRISON COUNTY

INDUSTRIAL SOLID WASTE
CERTIFICATION OF REMEDIATION

KNOW ALL MEN BY THESE PRESENT THAT:

Pursuant to the Rules of the Texas Commission on Environmental Quality pertaining to Industrial Solid Waste Management, this document is hereby filed in the Public Records of Harrison County, Texas in compliance with the recordation requirements of said rules:

I

The U.S. Army, Department of Defense, has performed a remediation of the land described herein. The site, LHAAP-19, is a C&D Landfill located within the former Longhorn Army Ammunition Plant (LHAAP) in the northeast corner of Harrison County, Texas approximately 14 miles northeast of Marshall, Texas, and approximately 40 miles west of Shreveport, Louisiana. LHAAP was placed on the National Priorities (NPL) during August 1990. After its listing on the NPL, the U.S. Army, United States Environmental Protection Agency (USEPA), and TCEQ (formerly known as Texas Water Commission) entered into an agreement under the Comprehensive Environmental Response Compensation, and Liability Act (CERCLA) Section 120 for remedial activities. The CERCLA Section 120 Agreement, referred to as the Federal Facility Agreement (FFA), became effective on December 30, 1991. Although there are many sites at LHAAP that are specifically NPL listed, LHAAP-19 is not itself considered an NPL site. The TCEQ, the lead regulatory agency concurs that the site could be closed under Texas Administrative Code (TAC) Risk Reduction Rule Standard 3.

The C&D landfill, designated LHAAP-19, covers a 7.91 acre tract of land. The maximum depth of the landfill is believed to be less than 15 feet below ground surface. The C&D landfill was sporadically active from 1985 until recent closure activities were conducted. The C&D landfill was permitted by rule to receive non-friable asbestos and other demolition debris. During periods of activity, the monthly disposal rate ranged from 35 to 400 cubic yards of waste. The C&D landfill (formerly referred to as LHAAP-26) was evaluated in 1988. From the landfill evaluation dated 1988, and the buildings description dated 2004, it is concluded that all of the materials deposited in this landfill were what is normally classified as Construction and Demolition Debris (C&D) consisting of wood and metal studs, corrugated metal walls and roofs, concrete rubble, steel re-bar, dry-wall, transite (non-friable asbestos) siding, cardboard, Class 2 paper, packing, plastics, foil, wood packaging, wood debris, bricks, cement and other inert constituents. Records provided by the site manager indicate that hazardous materials such as friable asbestos were disposed of in other permitted landfills. Based on this information and certification of process knowledge by the owner, this landfill is classified as Non-Hazardous Class 2. The final closure assessment report and its supporting documentation demonstrate that the threat to human health or the environment is at or below those required for Risk Reduction Standard Number 2. However, due to the fact that waste was left in place, a cap was constructed to cover the footprint of the landfill and closure of the landfill meets Risk Reduction Standard Number 3.

Further information may be found by examination of the Notice of Registration No. 30990 files, which are available for inspection upon request at TCEQ, Central File Room Customer Service Center, Building E, 12100 Park 35 Circle, Austin, Texas, 78753, (512) 239-2900, Monday through Friday 8:00 a.m. to 5:00 p.m. or the Administrative Record available at the Marshall Public Library, 300 S. Alamo Blvd, Marshall, Texas 75670, (903) 935-4465, Monday through Thursday 10:00 a.m. to 8 p.m., Friday and Saturday 10:00 a.m. to 5:30 p.m.

The Texas Commission on Environmental Quality requires certain persons to provide certification and/or recordation in the real property records to notify the public of the conditions of the land and/or the

occurrence of remediation. This certification is not a representation or warranty by the Texas Commission on Environmental Quality of the suitability of this land for any purpose.

II

Being a 7.91 acre tract of land situated in Harrison County, Texas, being out of and a part of a 8,493 acres tract of land known as the former Longhorn Army Ammunition Plant, situated between Highway 43 at Karnack, Texas, and the southwestern shore of Caddo Lake, and being more particularly described by metes and bounds as follows:

(All coordinates shown here on are NAD 83, Texas State Plane North Central Zone 4202, based on GPS Static Processing verified with OPUS).

Beginning at the northwest corner of the herein described tract with coordinates of North: 6951971.54, East: 3316288.74, from which an iron pin set for a GPS Base Point with coordinates of North 6951987.74, East 3316281.35 bears N 24-31-50 E a distance of 17.81 feet;

Thence N 78-23-54 E, 504.61 feet to a point for an angle point with coordinates of North: 6952073.02, East: 3316783.04

Thence S 52-47-27 E, 137.20 feet to a point for an angle point with coordinates of North: 6951990.05, East: 3316892.31;

Thence S 44-12-24 E, 108.04 feet to a point for an angle point with coordinates of North: 6951912.60, East: 3316967.64;

Thence S 01-33-58 W, 110.10 feet to a point for an angle point with coordinates of North: 6951802.55, East: 3316964.63;

Thence S 11-28-04 W, 121.11 feet to a point for an angle point with coordinates of North: 6951683.85, East: 3316940.56;

Thence S 17-11-28 W, 349.04 feet to a point for the southeast corner of the herein described tract with coordinates of North: 6951350.41, East: 3316837.39;

Thence N 89-11-23 W, 294.12 feet to a point for the southwest corner of the herein described tract with coordinates of North: 6951354.57, East: 3316543.30;

Thence N 22-57-01 W, 332.88 feet to an angle point with coordinates of North: 6951661.10, East: 3316413.50;

Thence N 21-53-42 W , 334.57 feet to the place of beginning and containing 7.91 acres of land according to a survey made on the ground on November 12, 2009 by Ace Surveying, Inc.

The United States Department of the Army has undertaken careful environmental study of the LHAAP-19 site and the TCEQ concluded that no further investigation or remedial action is required for LHAAP-19.

Limited monitoring will take place in the form of inspections of the landfill cap and any maintenance required to maintain the cap integrity for a period of five years. The Army shall correct, as needed, erosion of cover material, lack of vegetative growth, and subsidence or ponding of water. If any of these problems occur after the end of the five-year post-closure period or persist for longer than the first five years of post-closure care, the owner or operator shall be responsible for their correction until all problems have been adequately resolved. Future use of the parcel is intended as a national wildlife refuge consistent with industrial or recreational activities and not for residential purposes. For purposes of this certification, residential use includes, but is not limited to, single family or multifamily residences;

child care facilities; and nursing home or assisted living facilities; and any type of educational purpose for children/young adults in grades kindergarten through 12.

Institutional controls placed on the property to ensure appropriate future use include: (1) Use must remain non-residential as described above; and (2) No activity shall be conducted or permitted that would damage the integrity of the landfill cover (i.e. unauthorized digging or disturbing the existing cover or contents of the landfill). These restrictions will be placed in the deed transferring any part of the property out of federal ownership.

III

The owner of the site is the Department of the Army and its address where more specific information may be obtained is as follows:

ATTN: DAIM-ODB-LO (R. Zeiler)
Post Office Box 220
Ratcliff, AR 72951

or

Assistant Chief of Staff for Installation Management
ATTN: DAIM-BDO (T. Lederle)
600 Army Pentagon
Washington, D.C. 20310-0600

Rose M. Zeiler
Longhorn AAP Site Manager

EXECUTED this the 14th day of December, 2013.

STATE OF TEXAS
COUNTY OF Gregg

BEFORE ME, on this the 14th day of Nov, 2013, personally appeared Rose M. Zeiler, of The United States Army, United States Department of Defense, known to me to be the person and agent of said agency whose name is subscribed to the foregoing instrument, and she acknowledged to me that she executed the same for the purposes and in the capacity therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 14th day of Nov, 2013.

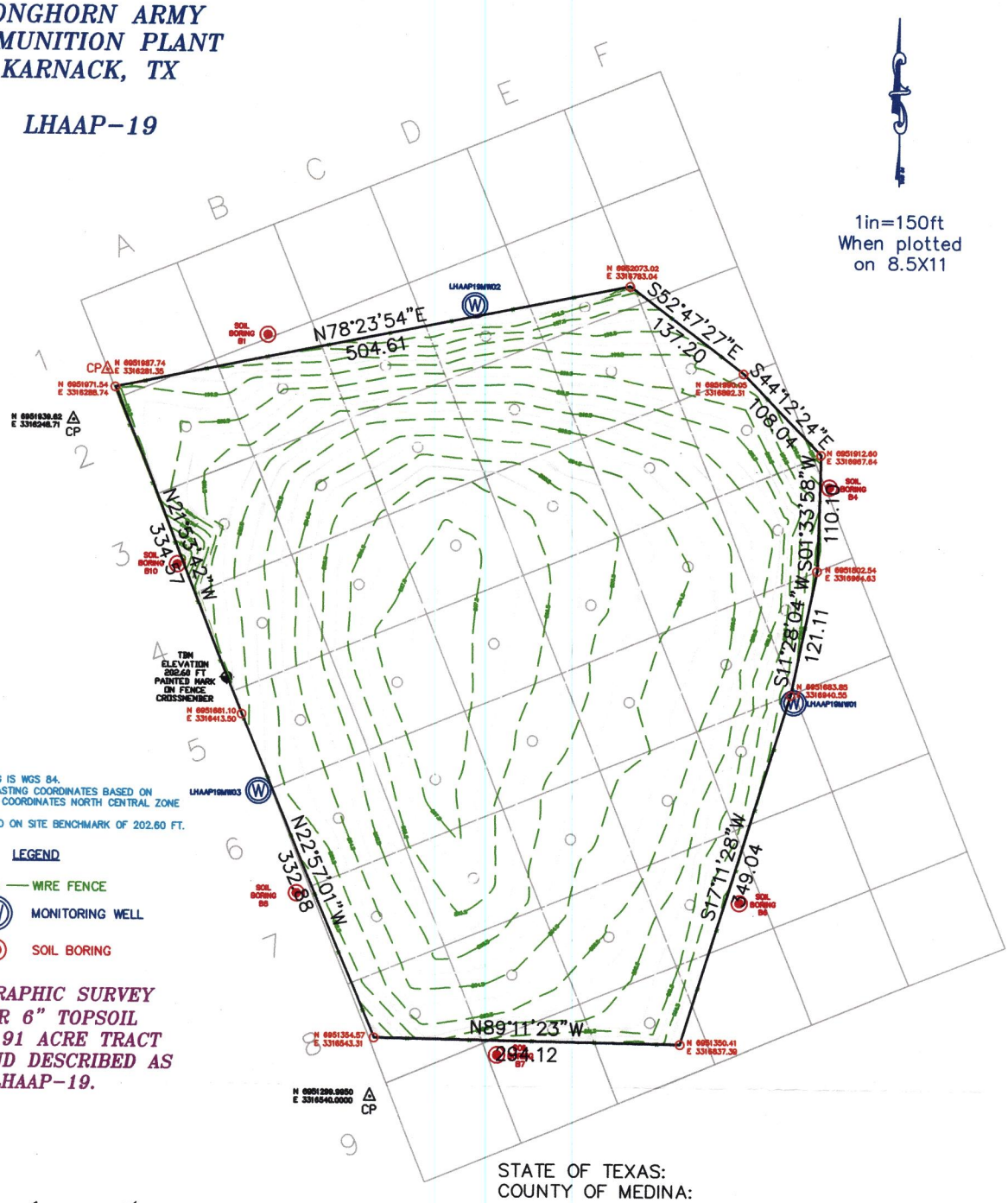
Notary Public in and for the State of Texas,

County of Harrison

BRENDA McBRIDE
Notary Public State of Texas
COMM. EXP. 5-4-2014

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TX

LHAAP-19



NOTES:
1) BASIS OF BEARING IS WGS 84.
2) NORTHING AND EASTING COORDINATES BASED ON TEXAS STATE PLANE COORDINATES NORTH CENTRAL ZONE #4202, NAD83.
3) ELEVATIONS BASED ON SITE BENCHMARK OF 202.60 FT.

LEGEND

— x — WIRE FENCE

(W) MONITORING WELL

(●) SOIL BORING

TOPOGRAPHIC SURVEY AFTER 6" TOPSOIL OF A 7.91 ACRE TRACT OF LAND DESCRIBED AS LHAAP-19.

Ace Surveying, Inc.
P. O. BOX 597
DEVINE, TEXAS 78016
830-334-7264
830-665-5796 FAX
acesurveying@sbcglobal.net

THIS DRAWING IS THE PROPERTY OF ACE LAND SERVICES AND SHALL NOT BE USED FOR ANY PURPOSE WITHOUT THE WRITTEN CONSENT OF AN AUTHORIZED AGENT OF ACE LAND SERVICES. ACE LAND SERVICES ACCEPTS NO RESPONSIBILITY FOR THE USE OF THIS DRAWING FOR ANY PURPOSE AFTER SIX MONTHS FROM THE DATE SHOWN HEREON. ALL RIGHTS RESERVED. COPYRIGHT 2009, ACE SURVEYING, INC. ©

STATE OF TEXAS
REGISTERED
RHONDA K. BUTLER
5409
PROFESSIONAL
LAND SURVEYOR

STATE OF TEXAS:
COUNTY OF MEDINA:

I, RHONDA K. BUTLER, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND BY MEN WORKING UNDER MY SUPERVISION.

RHONDA K. BUTLER
REGISTERED PROFESSIONAL LAND SURVEYOR #5409

SURVEYED: NOVEMBER 12, 2009
FILE NO: ALAMO 1, KARNACK

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10.0 LHAAP-19 BOUNDARY SURVEY

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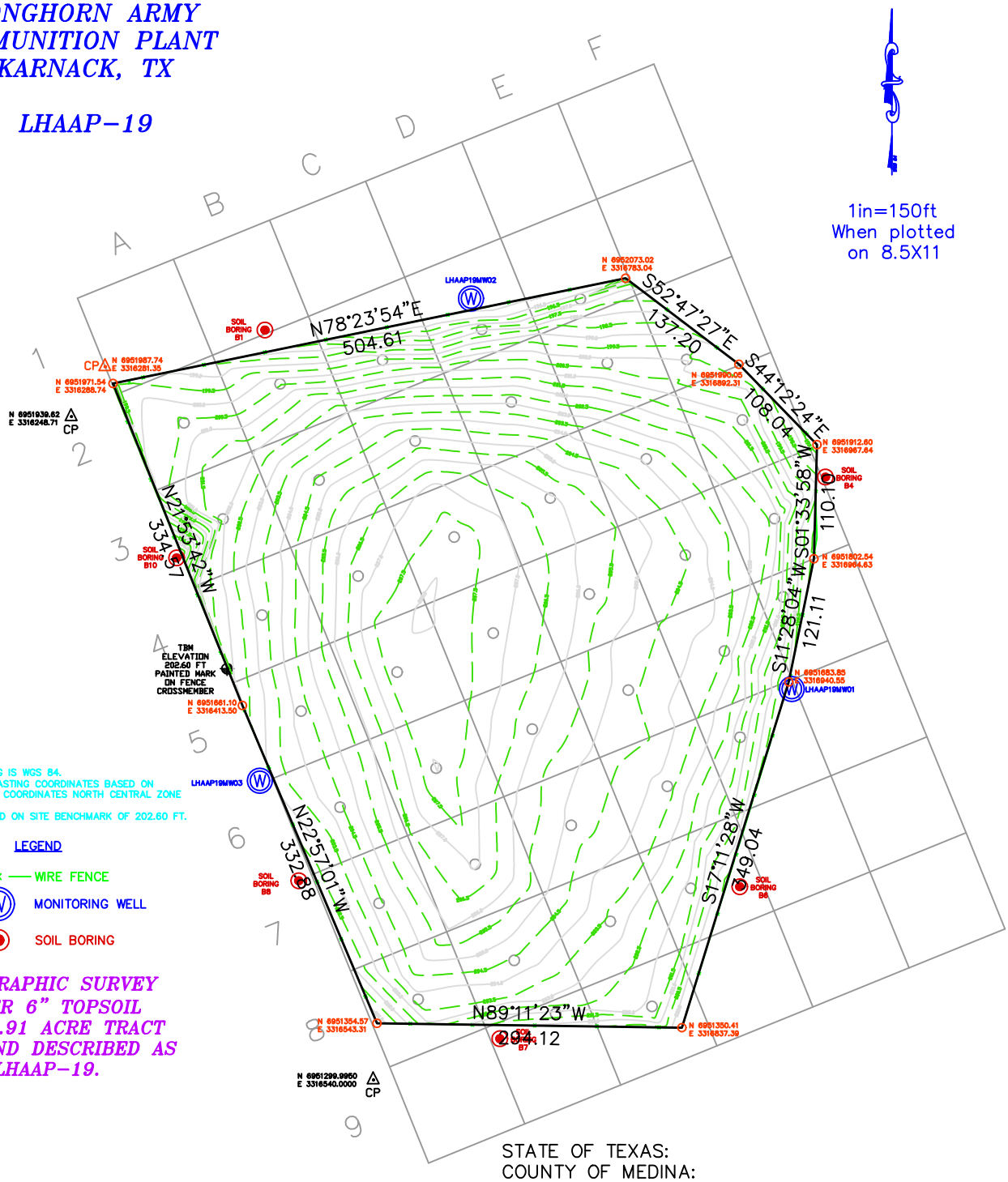
LONGHORN ARMY AMMUNITION PLANT
KARNACK, TX

LHAAP-19



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3) ELEVATIONS BASED ON SITE BENCHMARK OF 202.60 FT.

LEGEND

— x — WIRE FENCE

(W) MONITORING WELL

● SOIL BORING

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DEVINE, TEXAS 78016
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STATE OF TEXAS
REGISTERED
RHONDA K. BUTLER
5409
PROFESSIONAL
LAND SURVEYOR

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COUNTY OF MEDINA:

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RHONDA K. BUTLER
REGISTERED PROFESSIONAL LAND SURVEYOR #5409

SURVEYED: NOVEMBER 12, 2009
FILE NO: ALAMO 1, KARNACK

DEPARTMENT OF THE ARMY
LONGHORN ARMY AMMUNITION PLANT
POST OFFICE BOX 220
RATCLIFF, AR 72951

September 30, 2013

DAIM-ODB-LO

Mr. Rich Mayer
US Environmental Protection Agency
Superfund Division (6SF-AT)
1445 Ross Avenue
Dallas, TX 75202-2733

Re: Notification of Construction Completion for LHAAP-37, LHAAP-50, and LHAAP 35A (58), Longhorn Army Ammunition Plant, Karnack, Texas

Dear Mr. Mayer,

In July 2013 the Army began field activities to complete construction of approved remedies for the three subject sites. The attached memorandum from the Army's contractor, AECOM, constitutes notification of construction completion for planned monitoring wells, soil excavation, confirmation sampling, and backfill, and initial Enhanced In-Situ Bioremediation activities.

Remedial construction activities were completed by AECOM on behalf of the Army as part of AECOM's Performance Based Remediation contract for the facility. I ask that Dave Wacker, AECOM's Project Manager, be copied on any communications related to the project.

The point of contact for this action is the undersigned. I may be contacted at 479-635-0110, or by email at rose.zeiler@us.army.mil.

Sincerely,

Rose M. Zeiler, Ph.D.
Longhorn AAP Site Manager

Copies furnished:
A. Palmie, TCEQ, Austin, TX
D. Vodak, TCEQ, Tyler, TX
P. Bruckwicki, Caddo Lake NWR, TX
R. Smith, USACE, Tulsa District, OK
A. Williams, USACE, Tulsa District, OK
M. Plitnik, USAEC, San Antonio, TX
D. Wacker, AECOM – San Antonio, TX (for project files)

DEPARTMENT OF THE ARMY
LONGHORN ARMY AMMUNITION PLANT
POST OFFICE BOX 220
RATCLIFF, AR 72951

September 30, 2013

DAIM-ODB-LO

Ms. April Palmie
Texas Commission on Environmental Quality Superfund Section, MC-136
12100 Park 35 Circle, Bldg D
Austin, TX 78753

Re: Notification of Construction Completion for LHAAP-37, LHAAP-50, and LHAAP 35A (58), Longhorn Army Ammunition Plant, Karnack, Texas

Dear Ms. Palmie,

In July 2013 the Army began field activities to complete construction of approved remedies for the three subject sites. The attached memorandum from the Army's contractor, AECOM, constitutes notification of construction completion for planned monitoring wells, soil excavation, confirmation sampling, and backfill, and initial Enhanced In-Situ Bioremediation activities.

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Sincerely,

Rose M. Zeiler, Ph.D.
Longhorn AAP Site Manager

Copies furnished:
R. Mayer, USEPA Region 6, Dallas, TX
D. Vodak, TCEQ, Tyler, TX
P. Bruckwicki, Caddo Lake NWR, TX
R. Smith, USACE, Tulsa District, OK
A. Williams, USACE, Tulsa District, OK
M. Plitnik, USAEC, San Antonio, TX
D. Wacker, AECOM, San Antonio, TX (for project files)

AECOM

MEMORANDUM FOR RECORD

09 September 2013

PROJECT NAME: **Remediation of Multiple Sites, Longhorn Army Ammunition Plant**

TO: Rick Smith, USACE Project Manager
Longhorn Army Ammunition Plant, Karnack, TX
(Contract: W912DY-09-D-0059, Task Order DS01)

FROM: Dave Wacker
AECOM Project Manager, 210-253-7514

SUBJECT: **Notification of Remedial Action Well Construction Completion, LHAAP-35B (37), Chemical Laboratory**

This memorandum documents the Construction Completion of the Monitored Natural Attenuation (MNA) monitoring network for LHAAP-37 consistent with the Remedial Action Work Plan for LHAAP-37 (AECOM, 2013).

Seven shallow DPT borings with hydropunch water sampling were planned, and seven were completed. Two intermediate depth hydropunch samples were planned and both were completed.

Nine shallow wells were planned and all nine were installed. Two intermediate wells were planned for potential installation, but based upon clean hydropunch sampling results these wells were not installed.

Please feel free to contact me at 210-253-7514 with questions.

Sincerely,

Wacker, Dave

Digitally signed by Wacker, Dave
DN: dc=com, dc=aecomnet, dc=na, ou=AECOMUsers, ou=USSouth, ou=USSAT1, cn=Wacker, Dave
Date: 2013.09.09 11:41:42 -05'00'

Dave Wacker

DEPARTMENT OF THE ARMY
LONGHORN ARMY AMMUNITION PLANT
POST OFFICE BOX 220
RATCLIFF, AR 72951

September 30, 2013

DAIM-ODB-LO

Mr. Rich Mayer
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Sincerely,

Rose M. Zeiler, Ph.D.
Longhorn AAP Site Manager

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D. Vodak, TCEQ, Tyler, TX
P. Bruckwicki, Caddo Lake NWR, TX
R. Smith, USACE, Tulsa District, OK
A. Williams, USACE, Tulsa District, OK
M. Plitnik, USAEC, San Antonio, TX
D. Wacker, AECOM – San Antonio, TX (for project files)

DEPARTMENT OF THE ARMY
LONGHORN ARMY AMMUNITION PLANT
POST OFFICE BOX 220
RATCLIFF, AR 72951

September 30, 2013

DAIM-ODB-LO

Ms. April Palmie
Texas Commission on Environmental Quality Superfund Section, MC-136
12100 Park 35 Circle, Bldg D
Austin, TX 78753

Re: Notification of Construction Completion for LHAAP-37, LHAAP-50, and LHAAP 35A (58), Longhorn Army Ammunition Plant, Karnack, Texas

Dear Ms. Palmie,

In July 2013 the Army began field activities to complete construction of approved remedies for the three subject sites. The attached memorandum from the Army's contractor, AECOM, constitutes notification of construction completion for planned monitoring wells, soil excavation, confirmation sampling, and backfill, and initial Enhanced In-Situ Bioremediation activities.

Remedial construction activities were completed by AECOM on behalf of the Army as part of AECOM's Performance Based Remediation contract for the facility. I ask that Dave Wacker, AECOM's Project Manager, be copied on any communications related to the project.

The point of contact for this action is the undersigned. I may be contacted at 479-635-0110, or by email at rose.zeiler@us.army.mil.

Sincerely,

Rose M. Zeiler, Ph.D.
Longhorn AAP Site Manager

Copies furnished:
R. Mayer, USEPA Region 6, Dallas, TX
D. Vodak, TCEQ, Tyler, TX
P. Bruckwicki, Caddo Lake NWR, TX
R. Smith, USACE, Tulsa District, OK
A. Williams, USACE, Tulsa District, OK
M. Plitnik, USAEC, San Antonio, TX
D. Wacker, AECOM, San Antonio, TX (for project files)

AECOM

MEMORANDUM FOR RECORD

30 September 2013

PROJECT NAME: **Remediation of Multiple Sites, Longhorn Army Ammunition Plant**

TO: Rick Smith, USACE Project Manager
Longhorn Army Ammunition Plant, Karnack, TX
(Contract: W912DY-09-D-0059, Task Order DS01)

FROM: Dave Wacker
AECOM Project Manager, 210-253-7514

SUBJECT: **Notification of Remedial Action Well Construction and Soil Excavation Completion, LHAAP-50, Former Sump Water Tank**

This memorandum documents the Construction Completion of the Monitored Natural Attenuation (MNA) monitoring network and excavation, confirmation sampling, and backfill for perchlorate contaminated soil consistent with the Remedial Action Work Plan for LHAAP-50 (AECOM, 2013).

13 Direct Push Technology (DPT) locations with 15 hydropunch groundwater samples were planned, including 13 "shallow" (~30' bgs) and 2 "intermediate" (~60' bgs). DPT/hydropunch plan changes in response to lithology encountered during drilling operations resulted in additional field activities including a total of 13 DPT locations and 29 hydropunch samples, consisting of 13 hydropunch samples from the shallowest interval of the shallow groundwater zone, 15 hydropunch samples from various depths within the shallow groundwater zone (for vertical contaminant profiling) and 1 hydropunch from the intermediate zone.

Based on the Remedial Design Conceptual Site Model, a total of 20 wells were planned, including 14 "shallow" (~30' [below ground surface]), 5 "intermediate" (~60' bgs) and 1 "deep" (100' bgs). Drilling plan changes in response to lithology encountered during drilling operations resulted in a total of 20 wells installed, including 11 "upper shallow" (~35' bgs), 5 "lower shallow" (~60' bgs), 3 fully-penetrating shallow (~60' bgs), and 1"intermediate" (109' bgs).

For perchlorate contaminated soil a 1 foot deep excavation with an area of 4,000 square feet consisting of an estimated 150 cubic yards of soil was planned for excavation. 183 cubic yards of soil was actually excavated and disposed of off-site. Following receipt of confirmation

samples identifying that the excavated area soil met clean-up criteria, certified clean soil was used to backfill the excavation and restore the site.

Please feel free to contact me at 210-253-7514 with questions.

Sincerely,

Wacker, Dave

Digitally signed by Wacker, Dave
DN: dc=com, dc=aecomnet, dc=na, ou=AECOMUsers, ou=USSouth, ou=USSAT1, cn=Wacker, Dave
Date: 2013.09.30 13:33:01 -05'00'

Dave Wacker

DEPARTMENT OF THE ARMY
LONGHORN ARMY AMMUNITION PLANT
POST OFFICE BOX 220
RATCLIFF, AR 72951

September 30, 2013

DAIM-ODB-LO

Mr. Rich Mayer
US Environmental Protection Agency
Superfund Division (6SF-AT)
1445 Ross Avenue
Dallas, TX 75202-2733

Re: Notification of Construction Completion for LHAAP-37, LHAAP-50, and LHAAP 35A (58), Longhorn Army Ammunition Plant, Karnack, Texas

Dear Mr. Mayer,

In July 2013 the Army began field activities to complete construction of approved remedies for the three subject sites. The attached memorandum from the Army's contractor, AECOM, constitutes notification of construction completion for planned monitoring wells, soil excavation, confirmation sampling, and backfill, and initial Enhanced In-Situ Bioremediation activities.

Remedial construction activities were completed by AECOM on behalf of the Army as part of AECOM's Performance Based Remediation contract for the facility. I ask that Dave Wacker, AECOM's Project Manager, be copied on any communications related to the project.

The point of contact for this action is the undersigned. I may be contacted at 479-635-0110, or by email at rose.zeiler@us.army.mil.

Sincerely,

Rose M. Zeiler, Ph.D.
Longhorn AAP Site Manager

Copies furnished:
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D. Vodak, TCEQ, Tyler, TX
P. Bruckwicki, Caddo Lake NWR, TX
R. Smith, USACE, Tulsa District, OK
A. Williams, USACE, Tulsa District, OK
M. Plitnik, USAEC, San Antonio, TX
D. Wacker, AECOM – San Antonio, TX (for project files)

DEPARTMENT OF THE ARMY
LONGHORN ARMY AMMUNITION PLANT
POST OFFICE BOX 220
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September 30, 2013

DAIM-ODB-LO

Ms. April Palmie
Texas Commission on Environmental Quality Superfund Section, MC-136
12100 Park 35 Circle, Bldg D
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Dear Ms. Palmie,

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Remedial construction activities were completed by AECOM on behalf of the Army as part of AECOM's Performance Based Remediation contract for the facility. I ask that Dave Wacker, AECOM's Project Manager, be copied on any communications related to the project.

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D. Wacker, AECOM, San Antonio, TX (for project files)

AECOM

MEMORANDUM FOR RECORD

30 September 2013

PROJECT NAME: **Remediation of Multiple Sites, Longhorn Army Ammunition Plant**

TO: Rick Smith, USACE Project Manager
Longhorn Army Ammunition Plant, Karnack, TX
(Contract: W912DY-09-D-0059, Task Order DS01)

FROM: Dave Wacker
AECOM Project Manager, 210-253-7514

SUBJECT: **Notification of Remedial Action Well Construction and Initial Enhanced In-Situ Bioremediation Completion, LHAAP-58, Former Shops Area**

This memorandum documents the Construction Completion of the Monitored Natural Attenuation (MNA) monitoring network consistent with the Remedial Action Work Plan for LHAAP-58 (AECOM, 2013).

Eighteen (18) Direct Push Technology locations with hydropunch sampling of groundwater were planned and twenty (20) were actually completed. Fifteen (15) wells were planned and fourteen (14) wells were actually completed. The fifteenth well is a planned replacement well for well 03WW01. This well is planned for removal as part of the LHAAP-03 soil excavation. Since the soil excavation is still pending completion this well will be installed during LHAAP-03 field activities. Additionally, a replacement well for the well damaged by United States Fish and Wildlife staff (well 35AWW07) was installed (well 35AWW07R).

Initial enhanced in-site bioremediation was also completed in the eastern plume area. Ten (10) injections were planned and twelve (12) injection points were actually completed.

Please feel free to contact me at 210-253-7514 with questions.

Sincerely,

Wacker, Dave

Digitally signed by Wacker, Dave
DN: dc=com, dc=aecomnet, dc=na, ou=AECOMUsers, ou=USSouth, ou=USSAT1, cn=Wacker, Dave
Date: 2013.09.30 10:09:04 -05'00'

Dave Wacker

LONGHORN ARMY AMMUNITION PLANT (LHAAP) SITE-35B(37) IN SITU MICROBIAL BIOREACTOR (BIO PLUG) FIELD TEST INTERIM REPORT NO. 1

RELEASE DATE: 19 July 2013
TEST OFFICER: Gene L. Fabian
REPORT PREPARED BY: U.S. Army Aberdeen Test Center, Gene L. Fabian
TEST SPONSOR: U.S. Army Environmental Command
TEST EXECUTION PERIOD: July 2012 through March 2013

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(1) Background

The bio plug technology is a method of augmenting and enhancing the in situ biological degradation of chlorinated organic contaminants. The technology involves the installation of microbiological reactors (bio plugs) into the subsurface that will generate and disperse contaminant-specific microorganisms directly into the contaminated zone. The technology is patented by and proprietary to Advanced BioSystems, LLC (ABS); a subsidiary of TMD Technologies Group, LLC.

Bio plugs are small, immobilized microbe bioreactors. They are constructed using slotted PVC or HDPE pipe loaded with an inert porous material which serves as a structural support matrix (media) for the microorganisms. The microbial populations used are consortia of microorganisms selected for their abilities to biodegrade contaminants of concern, as well as their genetic stability, viability after storage, non-pathogenicity, and ability to compete with indigenous microorganisms. Selected microorganisms are attached (immobilized) on the media in high densities. Nutrients and air are supplied to the bio plugs to stimulate microbial respiration, reproduction and to promote microbial dispersion.

A pilot-scale field test of the bio plug technology was initiated at a chlorinated organic contaminated groundwater remediation site at the former Longhorn Army Ammunition Plant (LHAAP) in Karnack, TX. LHAAP-35B(37) is the location of a former chemical laboratory built in the mid-1950's to support propellant production activities at LHAAP. Industrial solid wastes and possibly hazardous wastes were generated at the site. In addition, one wash rack sump was located on the site. The primary groundwater contaminants of concern are tetrachlorothene and trichloroethene. Installation of the pilot-scale bio plug system was completed in Sep 2012. Figure 1 depicts the locations of the bio plugs within estimated contaminant plume, as well as, the bioreactor support equipment (i.e. zone distribution sheds, nutrient mixing equipment, etc.), monitoring well clusters between the bio plug arrays, and existing site monitoring wells. System operation was initialized and stabilized in Oct 2012.

(2) Objectives

The objective for the application of the bio-plug technology test will be to accelerate the biological degradation of chlorinated organic contaminants in the groundwater at the test site. The critical performance assessment factors will include an increase in the rate of contaminant concentration reduction as detected in monitoring wells. In addition, an increase in the

contaminant degrading microbial population throughout the targeted treatment zone is an expected indicator of enhanced bioremediation performance.

(3) Test Procedures

Prior to initiation of bio plug system operation, baseline samples were collected from the existing monitoring wells and the twelve cluster wells installed between the bio plug arrays in accordance with the approved site work plan (ref 1). Groundwater field parameters (well depth, temperature, conductivity, pH, oxygen reduction potential, dissolved oxygen, and total dissolved solids) were recorded for each well. Samples were collected for volatile organic compound (VOC) and total metals analysis in accordance with USEPA SW-846, Methods 8260B and 6020, respectively. Samples were also collected for microbial population enumeration using the guidelines of Method 9215B - Standard Methods for the Examination of Water and Wastewater, 20th Edition.

ATC conducted quarterly monitoring of the groundwater in Dec 2012 and Mar 2013 to assess the bio plug systems' contaminant reduction and microbial population changes in the groundwater during the operating period. The same field parameter data were collected and sample analyses were performed as those collected for baseline characterization.

(4) Test Data

Samples were collected in Jul 2012 prior to initiation of bio plug system operations for VOC and total metals analyses to establish the baseline contaminate concentrations for comparison with the quarterly samples collected during system operation. After system operations initiated in Oct 2012, samples were collected at the end of the first and second quarters of operation, Dec 2012 and Mar 2013, respectively. Summaries of the VOC analyses results for the primary VOC contaminates, tetrachloroethene (PCE), trichloroethene (TCE), 1,1-dichloroethane, 1,1-dichloroethene, and cis-1,2-dichloroethene, for the three sampling events are provided in Tables 1-5. Total metals analyses results are not summarized in this interim report. All chemical analysis data collected during the baseline and first two quarters of system operation were previously provided to USAEC when made available by the analytical laboratory. Only data pertaining to the primary contaminates which support the assessment of interim technology performance is included in this interim report. The metal analyses indicated low concentrations of metals consistent with historical metals data collected at this site. No changes in the metals concentrations have been observed between the baseline data and the quarterly monitoring metals data.

Samples for microbial enumeration were collected in Jul 2012, Sep 2012, Dec 2012, and Mar 2013. Total heterotroph and chlorinated aliphatic degrader microbial data are summarized in Tables 6 and 7, respectively. Baseline samples collected in Jul 2012 yielded microbial populations that were larger than normal and widely varying. This data was believed to be skewed by the presence of sediment in some of the samples. The analytical laboratory at Louisiana State University (LSU) believed it could address this variance during the sample preparation process by removing the sediment. The wells were sampled again for baseline microbial enumeration in Sep 2012. However, even with the sediment removal during the sample preparation, the results still yielded large and highly variable populations. The laboratory sediment removal methods were not completely effective. As a result, the sampling procedure

for the microbial samples were modified during the Dec 2012 sampling event to collect these samples in conjunction with the samples collected for chemical analyses using the low-flow bladder pump to ensure the samples were collected under stable and relatively undisturbed conditions. These samples yielded microbial enumeration results that are more typical of natural microbial populations in ground water. Although the Dec 2012 samples were collected after approx. 3 months of system operation, this data set will be used as the baseline microbial enumeration data in future comparisons. The bio plug system was not believed to have had any effect on microbial populations at the monitoring well locations between the bio plug rows at this point. Microbial populations were present and increasing in the bio plugs at this point in the pilot test. This is typical for the technology. However, distribution of these microbes through the groundwater layer between the rows of bio plugs had not occurred at this point. This is based on the samples ATC collected from the twelve monitoring wells installed between the bio plug rows to monitor system performance. Limited distribution of microbial population between the bio plug rows within the first three months of operation is typical at most sites. Distribution of the microbial population within the bio plug array is dependent upon the site geology and hydrology, contaminant types and levels, and bio plug array spacing. Microbes and nutrients are not forcibly injected into the subsurface so it is a fairly slow process. Typically, it has taken 9-12 months (and sometimes as long as 18 months) before microbial population dispersion is achieved in the target area. The Mar 2013 was performed using the modified sampling method to minimize the introduction of sediment in the samples. All subsequent microbial sampling events will be performed in the same manner.

Groundwater field parameters (well depth, temperature, conductivity, pH, oxygen reduction potential, dissolved oxygen, and total dissolved solids) were recorded for each well during each sampling event. All field parameters were consistent between the baseline and quarterly monitoring sampling events with the exception of groundwater temperature and dissolved oxygen (DO) concentrations. The temperature and DO data are summarized in Tables 8 and 9, respectively. Note that the DO data for the Jul 2012 sampling event is suspect because of a faulty DO sensor. A Horiba Model W21SDI multi-parameter meter that gathered DO measurements using the diaphragm galvanic battery method was used during the July sampling. The sensor was repaired and successfully used during the Sep and Dec 2012 sampling events. After the Dec 2012 sampling event the Horiba sensor module was damaged during shipment. All sampling events after Dec 2012 have used a YSI Model 6920 V2 multi-parameter meter with a 6562 Rapid Pulse DO sensor. ATC will use the YSI meter for all remaining sampling events. The Sep 2012 DO data will be used as the baseline in comparison with quarterly monitoring data because of the faulty Jul 2012 DO data.

(5) Technical Analysis

The primary performance factor for assessment of the bio plug technology is an observed reduction of the VOC concentrations in the monitoring wells between the rows of bio plugs. During bio plug array installation, twelve monitoring wells were installed at locations equidistant between the rows of bio plugs for system performance monitoring. These wells were installed in four clusters of three wells each. Each well in each cluster was screened at different levels within the upper shallow groundwater layer to monitor microbial and contaminant levels throughout the groundwater layer. A comparison of the baseline and quarterly VOC concentrations in Tables 1-5 does not yield clear trends in VOC reduction at this time. The PCE

concentrations (Table 1) may indicate a downward trend in concentrations, but more data is needed to determine whether this a real reduction in concentrations or groundwater contaminate heterogeneity. No contaminate reduction trends were observed in the other VOC data.

Enhanced bioremediation as a result of the first six months of bio plug technology operation has not yet yielded an increase in microbial populations at the monitoring wells. There is no significant difference between the Dec 2012 baseline total heterotrophy or chlorinated aliphatic degrader microbial populations and the populations detected in the Mar 2013 samples, Tables 6 and 7 respectively. ABS periodically collects samples from the bio plugs to verify the health and growth of the microbial populations in the inoculated media. Their data indicates that chlorinated aliphatic degrader microbial populations have been established and are being maintained in the bio plug arrays. The populations are the same at each sampled bio plug location (ref 1). Migration of the microorganisms between bio plug arrays has not yet occurred.

Groundwater temperature and DO has changed during the operating period. The temperature has naturally dropped during the winter months (Dec 2012 and Mar 2013 sampling events) compared to the baseline data collected in Jul and Sep 2012. The lowering of groundwater temperature may have impeded the dispersion of the microorganisms outside of the bio plugs. The DO concentrations reduced during the second quarter of operation. They were consistent between the baseline concentrations observed in Sep 2012 and the first quarter monitoring in Dec 2012. However, a significant reduction occurred during the second quarter of operation as indicated in the Mar 2013 data. It is not clear at this point whether this is an indication of increased oxygen utilization by microbial populations in the groundwater (which is not supported by the microbial enumeration data) or a seasonal fluctuation in groundwater DO levels. More data is needed to assess the meaning of the decreased DO concentrations.

In summary, after six months of operation the bio plug system has not yet increased the rate of bioremediation within the test area. This level of performance is expected since it takes some time to promote growth within the targeted test area and most likely the lower groundwater temperatures during the winter months slowed microbial dispersion between the bio plug arrays. The next six month period of operation (Apr – Sep 2013) is expected to yield increased microbial activity between the bio plug arrays.

(6) References

1. Stewart, Farrar and Portier, Ralph J. Assessment of Microbial Community Structure: Longhorn Army Ammunition Plant, Karnack, TX – Draft Report #1. Louisiana State University, June 12, 2013.

FIGURE 1. MONITORING AND CLUSTER WELL LOCATIONS

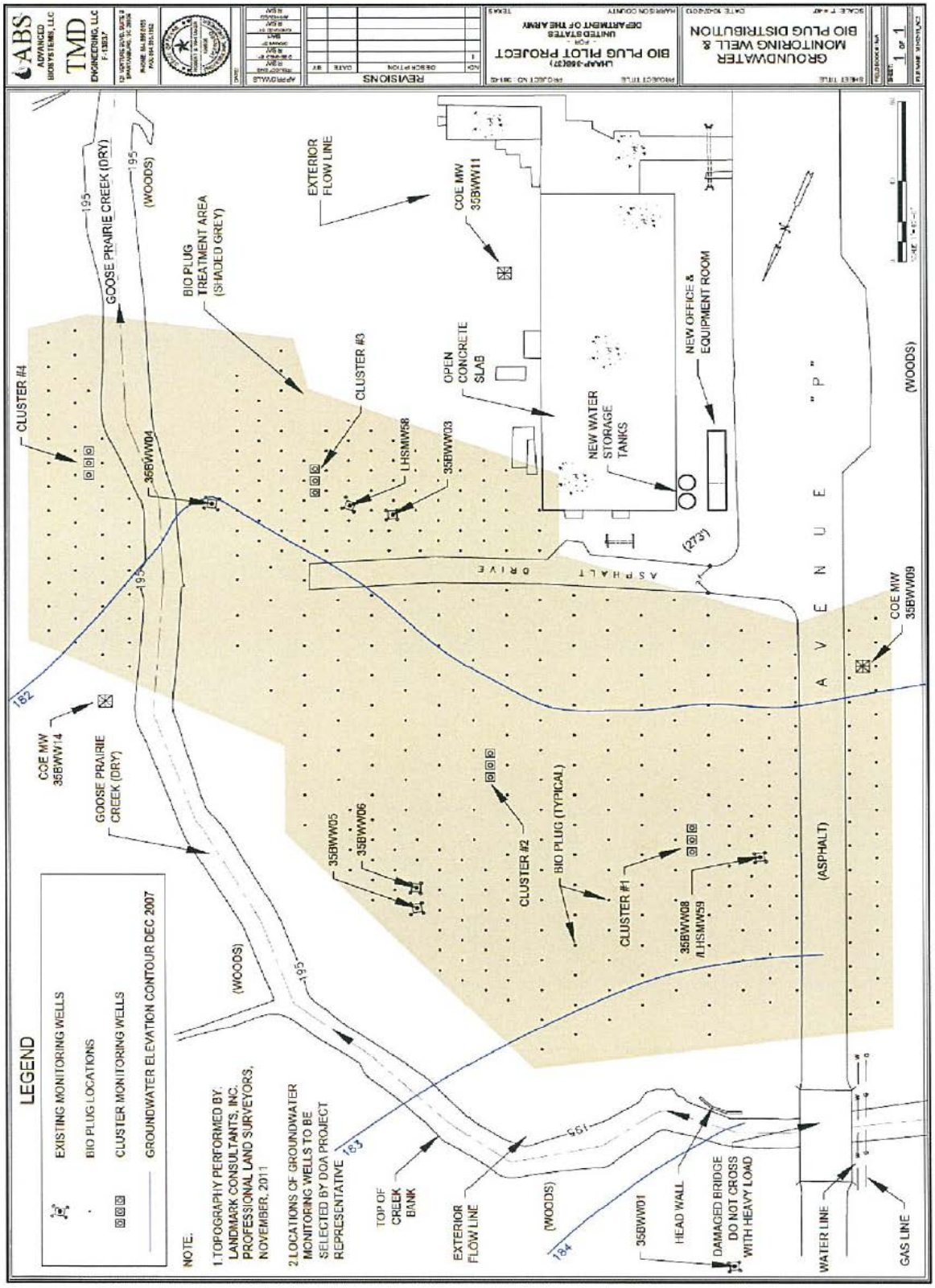

TABLE 1. MONITORING AND CLUSTER WELL TETRACHLOROETHENE DATA

Well ID	Tetrachloroethene (µg/L)		
	Jul-12	Dec-12	Mar-13
35BWW01	ND	NS	NS
35BWW02	NS	NS	NS
35BWW03	ND	ND	NS
35BWW04	48.90	NS	45.40
35BWW05	1.09	1.41	1.00
35BWW06	ND	ND	ND
35BWW07	ND	NS	NS
35BWW08	ND	ND	ND
35BWW09	ND	NS	ND
35BWW11	ND	NS	NS
35BWW14	21.00	28.00	21.80
LHS-MW-58	36.30	40.60	14.80
MW 1-1	ND	ND	ND
MW 1-2	ND	ND	ND
MW 1-3	ND	NS	NS
MW 2-1	2.65	5.95	3.17
MW 2-2	ND	ND	ND
MW 2-3	ND	0.256	ND
MW 3-1	30.10	26.2	22.10
MW 3-2	41.80	32.5	27.10
MW 3-3	60.50	49.00	38.00
MW 4-1	20.10	15.7	16.60
MW 4-2	9.60	9.18	7.06
MW 4-3	18.80	20.10	16.90

Notes:
NS = Not sampled.
ND = Non-detect.

TABLE 2. MONITORING AND CLUSTER WELL TRICHLOROETHENE DATA

Well ID	Trichloroethene (µg/L)		
	Jul-12	**Dec-12**	**Mar-13**
35BWW01	ND	NS	NS
35BWW02	NS	NS	NS
35BWW03	ND	ND	NS
35BWW04	8.09	NS	15.40
35BWW05	13.50	14.60	15.60
35BWW06	ND	ND	ND
35BWW07	ND	NS	NS
35BWW08	65.70	62.50	77.10
35BWW09	55.60	NS	45.20
35BWW11	ND	NS	NS
35BWW14	80.60	80.50	80.30
LHS-MW-58	5.17	6.76	3.39
MW 1-1	16.80	17.60	24.80
MW 1-2	8.66	8.57	8.96
MW 1-3	2.80	NS	NS
MW 2-1	4.59	7.25	4.78
MW 2-2	0.27	0.272	0.31
MW 2-3	1.44	1.24	0.92
MW 3-1	2.42	2.43	2.57
MW 3-2	3.07	1.90	2.14
MW 3-3	5.99	5.79	5.49
MW 4-1	3.63	4.16	4.27
MW 4-2	4.21	4.19	3.77
MW 4-3	13.50	13.5	12.40

Notes:
NS = Not sampled.
ND = Non-detect.

TABLE 3. MONITORING AND CLUSTER WELL
1,1-DICHLOROETHANE DATA

Well ID	1,1-Dichloroethane (µg/L)		
	Jul-12	Dec-12	Mar-13
35BWW01	ND	NS	NS
35BWW02	NS	NS	NS
35BWW03	ND	ND	NS
35BWW04	0.64	NS	2.11
35BWW05	ND	ND	ND
35BWW06	ND	ND	ND
35BWW07	ND	NS	NS
35BWW08	ND	ND	ND
35BWW09	ND	NS	ND
35BWW11	ND	NS	NS
35BWW14	4.95	4.58	4.89
LHS-MW-58	ND	0.306	ND
MW 1-1	ND	ND	ND
MW 1-2	ND	ND	ND
MW 1-3	ND	NS	NS
MW 2-1	ND	ND	ND
MW 2-2	ND	ND	ND
MW 2-3	ND	ND	ND
MW 3-1	ND	ND	ND
MW 3-2	0.25	0.158	0.23
MW 3-3	0.44	0.425	0.36
MW 4-1	ND	0.278	0.26
MW 4-2	0.27	0.27	0.32
MW 4-3	1.05	0.901	0.93

Notes:
NS = Not sampled.
ND = Non-detect.

TABLE 4. MONITORING AND CLUSTER WELL
1,1-DICHLOROETHENE DATA

Well ID	1,1-Dichloroethene (µg/L)		
	Jul-12	Dec-12	Mar-13
35BWW01	ND	NS	NS
35BWW02	NS	NS	NS
35BWW03	ND	ND	NS
35BWW04	1.67	NS	2.94
35BWW05	ND	ND	ND
35BWW06	ND	ND	ND
35BWW07	ND	NS	NS
35BWW08	ND	ND	ND
35BWW09	ND	NS	ND
35BWW11	ND	NS	NS
35BWW14	52.30	50.20	48.20
LHS-MW-58	0.66	0.81	ND
MW 1-1	ND	ND	ND
MW 1-2	ND	ND	ND
MW 1-3	ND	NS	NS
MW 2-1	ND	ND	ND
MW 2-2	ND	ND	ND
MW 2-3	ND	ND	ND
MW 3-1	ND	ND	ND
MW 3-2	1.01	0.537	0.65
MW 3-3	1.34	0.86	0.75
MW 4-1	0.66	1.15	0.93
MW 4-2	1.54	1.81	1.58
MW 4-3	7.58	6.76	6.12

Notes:
NS = Not sampled.
ND = Non-detect.

TABLE 5. MONITORING AND CLUSTER WELL
CIS-1,2-DICHLOROETHENE DATA

Well ID	cis-1,2-Dichloroethene (µg/L)		
	Jul-12	Dec-12	Mar-13
35BWW01	ND	NS	NS
35BWW02	NS	NS	NS
35BWW03	ND	ND	NS
35BWW04	0.48	NS	1.05
35BWW05	ND	ND	0.26
35BWW06	ND	ND	ND
35BWW07	ND	NS	NS
35BWW08	0.31	0.30	0.36
35BWW09	0.38	NS	0.43
35BWW11	ND	NS	NS
35BWW14	13.20	12.20	12.80
LHS-MW-58	ND	0.267	ND
MW 1-1	ND	ND	ND
MW 1-2	ND	ND	ND
MW 1-3	ND	NS	NS
MW 2-1	ND	ND	ND
MW 2-2	ND	ND	ND
MW 2-3	ND	ND	ND
MW 3-1	ND	ND	ND
MW 3-2	0.27	ND	ND
MW 3-3	0.31	1.20	0.69
MW 4-1	0.32	0.599	0.54
MW 4-2	0.56	0.534	0.47
MW 4-3	1.32	1.18	1.03

Notes:
NS = Not sampled.
ND = Non-detect.

TABLE 6. MONITORING AND CLUSTER WELL MICROBIAL ENUMERATION TOTAL HETERROTROPH DATA

Well ID	Total Heterotrophs (CFU/ml)			
	Jul-12	**Sep-12**	**Dec-12**	**Mar-13**
35BWW01	>1000	NS	NS	NS
35BWW02	NS	NS	NS	NS
35BWW03	36.67	>1000	0	NS
35BWW04	>1000	>10000	NS	15.60
35BWW05	>1000	>1000	14.6	15.60
35BWW06	>10000	>1000000/ >1000000	0	0.00
35BWW07	>1000	7166.67	NS	NS
35BWW08	>1000	2666.67	62.5	77.65
35BWW09	>1000	>10000	NS	75.20
35BWW11	>1000	>10000	NS	NS
35BWW14	>1000	66666.67/ >10000	80.5	80.30
LHS-MW-58	>1000	>10000	6.76	3.39
MW 1-1	>1000	>10000	18.85	24.80
MW 1-2	>1000	300000	8.57	8.96
MW 1-3	>1000	NS	NS	NS
MW 2-1	>10000/ >1000	>1000000	7.25	4.78
MW 2-2	>10000	>10000	0.272	0.31
MW 2-3	>10000	>10000	1.24	0.92
MW 3-1	>10000	>10000	2.43	2.57
MW 3-2	>1000	>10000	1.9	2.12
MW 3-3	>1000	>1000000	1.2	5.49
MW 4-1	>10000	>10000	4.19	4.27
MW 4-2	>1000	>1000	4.19	3.67
MW 4-3	>10000	>10000	13.5	12.40

Notes:
NS = Not sampled.
CFU/ml = colony forming units per milliliter

TABLE 7. MONITORING AND CLUSTER WELL MICROBIAL ENUMERATION
CHLORINATED ALIPHATIC DEGRADER DATA

Well ID	Chlorinated Aliphatic Degrader (CFU/ml)			
	Jul-12	**Sep-12**	**Dec-12**	**Mar-13**
35BWW01	666.67	NS	NS	NS
35BWW02	NS	NS	NS	NS
35BWW03	2.33	>500	0	NS
35BWW04	>10000	>500	NS	6.67
35BWW05	>10000	43.33	5	8.67
35BWW06	>1000	66666.67/ 2000000	0	3.33
35BWW07	>10000	75	NS	NS
35BWW08	>1000	18.33	14.33	5.00/ 7.00
35BWW09	0.33	3666.67	NS	1.00
35BWW11	9833.33	1000	NS	NS
35BWW14	>10000	75000	0	30.67
LHS-MW-58	>10000	336.67	0	28.00
MW 1-1	105.00	33.33	233.33/ 33.33	2.33
MW 1-2	>1000	51666.67	100	341.67
MW 1-3	666.67	NS	NS	NS
MW 2-1	>1000/ >1000	228333.33	0	8.00
MW 2-2	>1000	2666.67	3333.33	5.00
MW 2-3	>1000	166.67	36.33	178.33
MW 3-1	70.00	0	4.00/ 0.00	76.67
MW 3-2	>1000	1666.67	0	28.00
MW 3-3	>1000	376666.67	0	4.67
MW 4-1	>1000	33.33	21.67	3.33
MW 4-2	>1000	333.33/ 1666.67	3333.33	5.33/ 10.33
MW 4-3	>1000	8000	0	15.33

Notes:
NS = Not sampled.
CFU/ml = colony forming units per milliliter

TABLE 8. MONITORING AND CLUSTER WELL GROUNDWATER TEMPERATURE DATA

Well ID	Temperature (°C)			
	Jul-12	**Sep-12**	**Dec-12**	**Mar-13**
35BWW01	20.6	NS	NS	NS
35BWW02	NS	NS	NS	NS
35BWW03	20.4	23.6	18.3	NS
35BWW04	20.0	21.3	NS	19.31
35BWW05	21.0	18.7	18.5	18.61
35BWW06	20.5	19.7	17.6	13.95
35BWW07	25.2	20.9	NS	NS
35BWW08	22.2	22.2	18.0	19.89
35BWW09	21.6	20.6	NS	18.62
35BWW11	25.8	23.0	NS	NS
35BWW14	22.8	19.0	17.8	18.54
LHS-MW-58	22.0	21.3	19.4	20.14
MW 1-1	24.5	22.2	18.6	19.57
MW 1-2	22.6	22.2	15.8	16.18
MW 1-3	28.1	NS	NS	NS
MW 2-1	21.4	20.0	19.0	18.81
MW 2-2	23.6	21.2	18.8	19.08
MW 2-3	23.8	22.0	19.0	19.02
MW 3-1	21.2	19.1	17.6	17.88
MW 3-2	20.5	19.8	18.2	19.09
MW 3-3	22.0	21.9	17.9	19.42
MW 4-1	21.1	19.1	17.4	18.25
MW 4-2	21.9	19.4	17.8	18.66
MW 4-3	26.6	21.2	13.5	18.32

Notes:
NS = Not sampled.

TABLE 9. MONITORING AND CLUSTER WELL GROUNDWATER DISSOLVED OXYGEN DATA

Well ID	Dissolved Oxygen (mg/L)			
	Jul-12 [A]	Sep-12	Dec-12	Mar-13
35BWW01	19.99	NS	NS	NS
35BWW02	NS	NS	NS	NS
35BWW03	19.99	6.76	6.08	NS
35BWW04	19.99	6.90	NS	5.61
35BWW05	16.78	6.20	15.18	0.70
35BWW06	19.99	5.90	16.88	1.18
35BWW07	19.99	6.72	NS	NS
35BWW08	19.99	5.25	5.00	1.40
35BWW09	19.99	6.55	NS	2.49
35BWW11	19.99	5.89	NS	NS
35BWW14	19.99	6.14	5.67	2.39
LHS-MW-58	19.99	5.54	5.02	5.98
MW 1-1	16.49	5.23	8.56	0.69
MW 1-2	18.13	5.30	10.12	0.94
MW 1-3	15.23	NS	NS	NS
MW 2-1	16.91	5.80	8.14	0.42
MW 2-2	19.38	5.48	6.79	1.41
MW 2-3	19.99	5.38	3.98	0.77
MW 3-1	19.06	6.20	6.01	0.51
MW 3-2	19.99	5.93	5.43	1.07
MW 3-3	19.99	5.36	5.98	2.48
MW 4-1	19.99	6.09	NM	1.28
MW 4-2	17.95	6.00	NM	0.53
MW 4-3	NM	6.20	NM	3.16

Notes:
A = Data suspect due to faulty dissolved oxygen sensor.
NS = Not sampled.
NM = Not measured due to dissolved oxygen sensor failure.

DEPARTMENT OF THE ARMY
LONGHORN ARMY AMMUNITION PLANT
POST OFFICE BOX 220
RATCLIFF, AR 72951

November 18, 2013

DAIM-ODB-LO

Ms. April Palmie
Texas Commission on Environmental Quality Superfund Section, MC-136
12100 Park 35 Circle, Bldg D
Austin, TX

Re: Comprehensive Land Use Control Management Plan for FY 2013
Longhorn Army Ammunition Plant, Karnack, Texas

Dear Ms. Palmie,

As agreed among EPA Region 6, TCEQ and LHAAP, a revision log would be completed in the first quarter of each new fiscal year to document whether any changes were made to the Comprehensive Land Use Control Management Plan for Longhorn during the previous fiscal year. If no changes were made, the most recent version of the Plan would be considered current and a revision log would be signed by all three parties as a document control tool.

The current Comprehensive Land Use Control Management Plan is dated February 4, 2013. Because no additional changes were made during the 2013 fiscal year, that document will remain in effect and the revision log will be incorporated into the Administrative Record. One of three signed original copies of the revision log is enclosed for your file. The complete Comprehensive Land Use Control Management Plan may be reviewed in the Administrative Record, Bate Stamp 00118241 – 00118577.

The document was prepared by the U.S. Army. The point of contact for this action is the undersigned. I may be contacted at 479-635-0110, or by email at rose.zeiler@us.army.mil.

Sincerely,

Rose M. Zeiler, Ph.D.
Longhorn AAP Site Manager

One Enclosure

Copies furnished:
R. Mayer, EPA Region 6, Dallas, TX
D. Vodak, TCEQ, Tyler, TX
P. Bruckwicki, Caddo Lake NWR, TX
R. Smith, USACE, Tulsa District, OK
A. Williams, USACE, Tulsa District, OK

M. Plitnik, USAEC, San Antonio, TX
D. Wacker, AECOM – San Antonio, TX (for project files)

COMPREHENSIVE LUC & NOTIFICATION MANAGEMENT PLAN
REVISION LOG

Fiscal Year	Date	Reason for Revision	Approved *		
			Army	EPA	TCEQ
Original	9-13-07	N/A			
2008		None Required			
2009		None Required			
2010		None Required			
2011		None Required			
2012	2-4-13	Add LHAAP-06,-07,-08,-35/36,-35B (37)/67, -46, -49, -50,-51,-55,-35A (58),-59,-60,-66,-68, Pistol Range, LHAAP-001-R-01 and LHAAP-003-R-01			
2013	10-1-13	None Required	11/14/13	11/21/13	11/14/13

* Approval by all three parties required during the first quarter of each fiscal year.

DEPARTMENT OF THE ARMY
LONGHORN ARMY AMMUNITION PLANT
POST OFFICE BOX 220
RATCLIFF, AR 72951

November 18, 2013

DAIM-ODB-LO

Mr. Rich Mayer
US Environmental Protection Agency
Federal Facilities Section R6
1445 Ross Avenue
Dallas, TX 75202-2733

Re: Comprehensive Land Use Control Management Plan for FY 2013
Longhorn Army Ammunition Plant, Karnack, Texas

Dear Mr. Mayer,

As agreed among EPA Region 6, TCEQ and LHAAP, a revision log would be completed in the first quarter of each new fiscal year to document whether any changes were made to the Comprehensive Land Use Control Management Plan for Longhorn during the previous fiscal year. If no changes were made, the most recent version of the Plan would be considered current and a revision log would be signed by all three parties as a document control tool.

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Sincerely,

Rose M. Zeiler, Ph.D.
Longhorn AAP Site Manager

Copies furnished:
A. Palmie, TCEQ, Austin, TX
D. Vodak, TCEQ, Tyler, TX
P. Bruckwicki, Caddo Lake NWR, TX
R. Smith, USACE, Tulsa District, OK

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COMPREHENSIVE LUC & NOTIFICATION MANAGEMENT PLAN
REVISION LOG

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2008		None Required			
2009		None Required			
2010		None Required			
2011		None Required			
2012	2-4-13	Add LHAAP-06,-07,-08,-35/36,-35B (37)/67, -46, -49, -50,-51,-55,-35A (58),-59,-60,-66,-68, Pistol Range, LHAAP-001-R-01 and LHAAP-003-R-01			
2013	10-1-13	None Required	11/14/13	11/14/13	11/14/13

* Approval by all three parties required during the first quarter of each fiscal year.

FY2012

LONGHORN ARMY AMMUNITION PLANT

Installation Action Plan

Printed 19 November 2013

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Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multiyear cleanup program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern (AOC), and proposes a comprehensive, installation-wide approach, along with the costs and schedules associated with conducting investigations and taking the necessary remedial actions (RA).

In an effort to coordinate planning information between the restoration manager, Base Realignment and Closure (BRAC), the US Army Environmental Command (USAEC), Longhorn Army Ammunition Plant (LHAAP), the executing agencies, regulatory agencies, and the public, an IAP was completed. The IAP is used to track requirements, schedules, and tentative budgets for all major Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

Acronyms

AEDB-R	Army Environmental Database- Restoration
AOC	Area of Concern
ARAR	Applicable or Relevant and Appropriate Requirements
AST	Aboveground Storage Tank
BIP	Blow in Place
BRAC	Base Realignment and Closure
BRACO	Base Realignment and Closure Office
CERCLA	Comprehensive Environmental, Response, Compensation and Liability Act
CLI	Caddo Lake Institute
DERPMIS	Defense Environmental Restoration Program Management Information System
EE/CA	Engineering Evaluation/Cost Analysis
EOD	Explosive Ordnance Disposal
ER,A	Environmental Restoration, Army (formerly DERA)
ESS	Explosives Safety Submission
FRA	Final Remedial Action
FWS	(US) Fish and Wildlife Service
FY	Fiscal Year
GWTP	Groundwater Treatment Plan
HTRW	Hazardous, Toxic and Radioactive Waste
INF	Intermediate-Range Nuclear Force
IRP	Installation Restoration Program
ISC	Information Systems Command
K	thousand
LAP	Load, Assemble, and Pack
LHAAP	Longhorn Army Ammunition Plant
LTM	Long-Term Management
LUC	Land Use Controls
MC	Munitions Constituents
MEC	Munitions and Explosives of Concern
mm	milimeters
MOA	Memorandum of Agreement
MRSPP	Munitions Response Site Prioritization Protocol
N/A	Not Applicable
NA	No Action
ORIS	Operational Range Inventory - Sustainment
PBA	Performance-Based Acquisition
PBC	Performance-Based Contract
PCB	Polychlorinated Biphenyls
POL	Petroleum, Oil, and Lubricants
Qtr	quarter
RA(C)	Remedial Action-Construction
RAB	Restoration Advisory Board
RC	Response Complete
RIP	Remedy-in-Place
RMIS	Restoration Management Information System

Acronyms

RRSE	Relative Risk Site Evaluation
RTC	Response to Comments
SI	Site Inspection
TAPP	Technical Assistance for Public Participation
TBD	To be determined
TERC	Total Environmental Restoration Contract
TNT	Trinitrotoluene
TRC	Technical Review Committee
TWC	Texas Water Commission
UEP	Unlined Evaporation Pond
ug/L	micrograms per liter
USACE	US Army Corps of Engineers
USAEHA	US Army Environmental Hygiene Agency
USFWS	US Fish and Wildlife Service
USSR	Union of Soviet Socialist Republics
VOC	Volatile Organic Compound
WP	White Phosphorous
WWII	World War II
WWTP	Wastewater Treatment Plant

Installation Information

Installation Locale

Installation Size (Acreage): 8,416.00
City: Marshall
County: Harrison
State: Texas
Other Locale Information

The Longhorn Army Ammunition Plant (LHAAP) is located in central east Texas, in the northeast corner of Harrison County, approximately 14 miles northeast of Marshall, Texas, and 40 miles west of Shreveport, LA. The closed installation currently occupies approximately 1,400 of its original 8,416 acres between State Highway 43 and the western shore of Caddo Lake. The area surrounding LHAAP is primarily rural and consists of forest lands, the small towns of Karnack and Uncertain, Texas, Caddo Lake, and Caddo Lake State Park.

Installation Mission

The LHAAP was an Army Materiel Command installation which the Army declared excess to its needs in July 1997. While active, the installation's mission was the production of trinitrotoluene (TNT) [World War II (WWII) era only], pyrotechnic items, and rocket motors. In 2003, the BRAC Division was tasked with its disposal.

Lead Organization

Base Realignment and Closure Division

Lead Executing Agencies for Installation

US Army Corps of Engineers (USACE), Tulsa District

Regulator Participation

Federal	US Environmental Protection Agency (USEPA), Region VI
State	Texas Commission on Environmental Quality (TCEQ)

National Priorities List (NPL) Status

A score of 40 was recorded on 01-AUG-90.

Final RA(C) Completion Date: 201504

Date for NPL Deletion: TBD

Installation Restoration Advisory Board (RAB)/Technical Review Committee (TRC)/Technical Assistance for Public Participation (TAPP) Status

RAB established 2004

Installation Program Summaries

IRP

Primary Contaminants of Concern: Explosives, Metals, Munitions constituents (MC), Perchlorate, Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Affected Media of Concern: Groundwater, Sediment, Soil, Surface Water

Installation Information

MMRP

Primary Contaminants of Concern: Explosives

Affected Media of Concern: Groundwater, Soil

Cleanup Program Summary

Installation Historic Activity

The LHAAP was established in October 1942, with the primary mission of producing 2,4,6-TNT flake. Monsanto Chemical Company was the first contract operator of the plant. Production of 2,4,6-TNT continued through WWII until August 1945, when the plant went on standby status until February 1952. From then until 1956, Universal Match Corporation was the contracting operator, producing such pyrotechnic ammunition as photoflash bombs, simulators, hand signals, and tracers for 40 millimeter (mm) ammunition. With the departure of Universal Match Corporation in 1956, Thiokol assumed this responsibility, along with rocket motor production. Production of rocket motors continued to be the primary mission of LHAAP until 1965, when the production of pyrotechnic and illuminating ammunition was re-established.

Prior to 1994, operations consisted of compounding pyrotechnic and propellant mixtures, load, assemble, and pack (LAP) activities, accommodating receipt and shipment of containerized cargo, and maintenance and/or layaway of standby facilities and equipment as they apply to mobilization planning. The installation was also responsible for the static firing and elimination of Pershing I and II rocket motors in compliance with the intermediate-range nuclear force (INF) treaty in effect between the US and the former Union of Soviet Socialist Republics (USSR). In October 1996, a lease in excess of 1,000 of the 8,416 acres was granted to the Caddo Lake Institute (CLI) for biological and ecological studies by local schools and universities.

In July 1997, the plant became inactive and excess to the Army's needs. In July 1998 the Army contracted EarthTech, Inc. to liquidate all personal property and specific installed property. That contract was completed in fiscal year (FY)2000. In 1999 the Army contracted with Project Development Corporation to demolish specified structurally unsafe buildings. In 2003 the demolition of all remaining buildings began. The demolition of the power plant was completed in 2009. Only the transformers remaining, all planned demolition has taken place. A memorandum of agreement (MOA) between the Army and the US Fish and Wildlife Service (USFWS), was signed on Oct. 21, 2000 designating an area, consisting of approximately 7,200 acres, for establishment of a wildlife refuge overlay at LHAAP. In October 2002 LHAAP was transferred to the Base Realignment and Closure Office (BRACO) to manage as an excess property. In April 2004, the Army and the USFWS entered into an MOA that set forth the transfer process of LHAAP acreage. Since May 2004, approximately 7,000 LHAAP acres have been transferred to the USFWS. The USFWS manages these acres as the Caddo Lake National Wildlife Refuge within the perimeter fence of the former installation. Although the perimeter fence and gates remain functional, guards are no longer posted since the Army's security contract expired on March 14, 2007. The CLI lease with the Army was transferred to the USFWS with the affected acreage.

On Aug. 9, 1990, the LHAAP was placed on the NPL. After being listed on the NPL, LHAAP, the USEPA, and the Texas Water Commission (TWC) (now called the TCEQ) entered into a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 120 Agreement for remedial activities at LHAAP. The CERCLA Section 120 agreement, referred to as the federal facility agreement (FFA), became effective Dec. 30, 1991. The installation applied for a Resource Conservation and Recovery Act (RCRA) Part A permit.

In February 1992, a RCRA Part B permit was signed. As a result, a RCRA facility assessment (RFA) identified 57 potential sites of concern. Since that time, scrubbing of the list [removal of non-Environmental Restoration, Army (ER,A) eligible sites, redundancies, etc.] has resulted in the current Army Environmental Database - Restoration (AEDB-R) list of 50 sites. In late 2007, the USEPA Region VI clarified their view of the NPL status of LHAAP as consisting of only those sites listed in the FFA and any additional sites with significant contamination. During a meeting between the Army, the USEPA and the TCEQ held in February 2008 at TCEQ headquarters, regulators and the Army agreed on the sites that will be addressed as NPL, including those listed and those considered to be NPL-caliber. The NPL sites are LHAAP-004, LHAAP-037, LHAAP-046, LHAAP-047, LHAAP-049, LHAAP-050, LHAAP-058, and LHAAP-067 as well as the following sites which are listed in the FFA: LHAAP-001, LHAAP-011, LHAAP-012, LHAAP-013, LHAAP-014, LHAAP-016, LHAAP-017, LHAAP-018, LHAAP-024, LHAAP-027, LHAAP-029, LHAAP-032, LHAAP-054. The USEPA will continue to provide review and concurrence on documents related to these sites and will co-sign records of decision (ROD). The schedule for each of these sites will be described in this IAP, which will serve as formal documentation of the resolution between the Army and USEPA.

The non-NPL sites will be addressed through CERCLA, with RCRA issues addressed, as necessary, as applicable or relevant and appropriate requirements (ARAR), with the TCEQ as lead regulator. The USEPA will provide review; however, the decision documents (DD) will be signed by the Army alone with the TCEQ providing a letter of concurrence. In addition to the site listing of the FFA, an installation assessment by the Army in February 1980 and the RFA in April 1988 identified additional potential sites of concern. The information management system used in the early-1990s [Defense Environmental Restoration Program Management Information system (DERPMIS)] identified 59 sites at that time. In the mid-1990s, the tracking system being used at the time [the restoration management information system (RMIS)] was updated to remove duplicate sites, sites contained within other sites, sites that were not a part of the restoration program, and sites that never existed.

Cleanup Program Summary

The LHAAP Environmental Site Status, provided in Appendix A, is the resulting list of the LHAAP environmental sites, both NPL and non-NPL, with the associated DERPMIS and RMIS numbers. The current status of the sites and their completion dates or projected phase completion dates are also provided.

The following sites have been transferred: LHAAP-001, LHAAP-005, LHAAP-009, LHAAP-011, LHAAP-013, LHAAP-014, LHAAP-015, LHAAP-034, LHAAP-045, LHAAP-052, LHAAP-057, LHAAP-061, and LHAAP-063. Site LHAAP-012 has been offered for transfer.

Installation Program Cleanup Progress

IRP

Prior Year Progress:
- A proposed plan (PP) completed for LHAAP-029
- A remedial design (RD) completed for LHAAP-046
- An RD completed for LHAAP-050
- An RD completed for LHAAP-058
- An RD completed for LHAAP-037/067
- A feasibility study (FS) completed for LHAAP-047
- An engineering evaluation/cost analysis (EE/CA) drafted for LHAAP-003
- An FS drafted for LHAAP-004
- An FS drafted for LHAAP-018/024

Future Plan of Action: Remedial action (operations) [RA(O)]/long-term management (LTM) will be implemented for LHAAP-037, LHAAP-046, LHAAP-050, LHAAP-058 and LHAAP-067
- A ROD will be completed for LHAAP-003, LHAAP-004, LHAAP-016, LHAAP-017, LHAAP-018/024, LHAAP-029, and LHAAP-047

MMRP

Prior Year Progress:
- An MC Data Summary Report was completed for LHAAP-001-R-01 and LHAAP-003-R-01
- A PP was completed for LHAAP-001-R-01 and LHAAP-003-R-01
- A ROD was drafted for LHAAP-001-R-01 and LHAAP-003-R-01.

Future Plan of Action: A ROD will be completed in FY2012. The LTM phase will begin.

5-Year / Periodic Review Summary

5-Year / Periodic Review Summary

Status	Begin Date	End Date	End FY
Complete	200706	200706	2007
Complete	200206	200206	2002
Underway	201203	201310	2014

Last Completed 5-Year / Periodic Review Details

Associated ROD/DD Name	Sites
BURNING GROUND #3(LHAAP-018 & LHAAP-024)	LHAAP-018, LHAAP-024
CAPPING LANDFILLS 12 & 16	LHAAP-012, LHAAP-016

ResultsInterim RODs are satisfactory

ActionsImplement Final RODs

PlansMNA

Recommendations and Implementation Plans:
All actions from the 2008 five-year review were addressed by 2010 including submission of an explanation of significant differencs (ESD) to indicate the remedy at LHAAP-18/24 was limited to the information and communication technologies (ICT) and did not include the eight extraction wells that were mentioned in the interim remedial action (IRA) ROD.

Land Use Control (LUC) Summary

LUC title: LHAAP-037 & 067 GW

Site(s): LHAAP-067

ROD/DD title: Final ROD LHAAP-035B (037) & LHAAP-067

Location of LUC

LHAAP-037 and LHAAP-067 groundwater

Land Use Restriction: Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for agricultural/irrigation purposes

Types of Engineering Controls: None

Types of Institutional Controls: Restrictions on Groundwater Withdrawal

Date in Place: 201110

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: USACE District

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: VOC

Additional Information

N/A

LUC title: LUC for LHAAP-012 Capping

Site(s): LHAAP-012

ROD/DD title: LHAAP-12 Final ROD

Location of LUC

Site LHAAP-012

Land Use Restriction: Landfill restriction - Prohibit activities that would impact the LF cap (or cover system) and drainage system, Landfill restriction - Prohibit excavation on LF cap or cover system, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for agricultural/irrigation purposes

Types of Engineering Controls: Fences, Signs

Types of Institutional Controls: Deed Restrictions, Dig Permits

Date in Place: 200706

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: USACE District

Record of LUC: Master Plan or Equivalent

Documentation Date: 200706

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: VOC

Additional Information

N/A

Parcel Summary

Summary of Parcel Prioritization and Transfer Strategy

Parcel Name: **Burning Ground (FWS)**
Parcel Size: 380.00
Associated Sites: LHAAP-017, LHAAP-016, LHAAP-024, LHAAP-018
Transfer Date: 201307
Current Land Use: Other (under remediation)
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Name: **Debris Landfill**
Parcel Size: 13.00
Associated Sites:
Transfer Date: 201207
Current Land Use: Industrial
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: N/A
Other Issues Affecting Transfer: N/A

Parcel Name: **East FIA I (FWS)**
Parcel Size: 182.00
Associated Sites:
Transfer Date: 200708
Current Land Use: Recreational
Future Land Use: Other (N/A)
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Summary

Parcel Name: **East FIA II(FWS)**
Parcel Size: 175.00
Associated Sites: PBC Longhorn, LHAAP-035
Transfer Date: 200909
Current Land Use: Industrial
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Name: **Fire House (FWS)**
Parcel Size: 2.98
Associated Sites:
Transfer Date: 200705
Current Land Use: Recreational
Future Land Use: Other (N/A)
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Name: **Ground Signal Test (FWS)**
Parcel Size: 80.00
Associated Sites: LHAAP-003-R-01
Transfer Date: 201301
Current Land Use: Other (Under remediation)
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Summary

Parcel Name: **LANDFILL 12 (FWS)**
Parcel Size: 51.00
Associated Sites: LHAAP-012
Transfer Date: 201210
Current Land Use: Industrial
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: Land Use Control/maintenance costs

Parcel Name: **Pistol Range (FWS)**
Parcel Size: 1.00
Associated Sites: PBC Longhorn
Transfer Date: 201210
Current Land Use: Other (under remediation)
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Name: **Production Area II**
Parcel Size: 467.00
Associated Sites: PBC Longhorn
Transfer Date: 201302
Current Land Use: Other (Under remediation)
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Summary

Parcel Name: **Production Area Ia (FWS)**
Parcel Size: 456.72
Associated Sites: PBC Longhorn, LHAAP-035
Transfer Date: 200708
Current Land Use: Residential
Future Land Use: Other (N/A)
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Name: **Production Area Ib (FWS)**
Parcel Size: 107.59
Associated Sites: PBC Longhorn, LHAAP-035
Transfer Date: 200701
Current Land Use: Recreational
Future Land Use: Other (N/A)
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Name: **South Test/Bomb (FWS)**
Parcel Size: 72.00
Associated Sites: LHAAP-001-R-01
Transfer Date: 201301
Current Land Use: Other (Under remediation)
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Summary

Parcel Name: **Static Test (FWS)**
Parcel Size: 55.00
Associated Sites:
Transfer Date: 201210
Current Land Use: Other (Under remediation)
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Name: **Y Area (FWS)**
Parcel Size: 17.00
Associated Sites:
Transfer Date: 201210
Current Land Use: Other (Under remediation)
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

LONGHORN ARMY AMMUNITION PLANT

Non-BRAC Excess
Installation Restoration Program

IRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 54/17

Installation Site Types with Future and/or Underway Phases

2 Above Ground Storage Tank
(LHAAP-049, LHAAP-067)
3 Burn Area
(LHAAP-001, LHAAP-017, LHAAP-018)
1 Contaminated Ground Water
(PBC Longhorn)
5 Landfill
(LHAAP-011, LHAAP-012, LHAAP-013, LHAAP-014, LHAAP-016)
1 Oil Water Separator
(LHAAP-056)
3 Spill Site Area
(LHAAP-051, LHAAP-058, LHAAP-066)
13 Storage Area
(LHAAP-002, LHAAP-003, LHAAP-006, LHAAP-007, LHAAP-023, LHAAP-036, LHAAP-037, LHAAP-045, LHAAP-059, LHAAP-060, LHAAP-064, LHAAP-065, LHAAP-068)
1 Surface Impoundment/Lagoon
(LHAAP-024)
1 Underground Storage Tank
(LHAAP-035)
4 Waste Lines
(LHAAP-029, LHAAP-046, LHAAP-047, LHAAP-050)
3 Waste Treatment Plant
(LHAAP-004, LHAAP-008, LHAAP-055)

Most Widespread Contaminants of Concern

Explosives, Metals, Munitions constituents (MC), Perchlorate, Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Media of Concern

Groundwater, Sediment, Soil, Surface Water

Completed Remedial Actions (Interim Remedial Actions / Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY	Cost
LHAAP-018	BURNING GROUND/WASHOUT POND(SWMU 18)	IRA	REMOVAL	1997	TBD
LHAAP-024	FORMER UNLINED EVAP POND (SWMU 24)	IRA	CAPPING	1997	TBD
LHAAP-024	FORMER UNLINED EVAP POND (SWMU 24)	IRA	REMOVAL	1997	TBD
LHAAP-012	ACTIVE LANDFILL (SWMU 12)	IRA	CAPPING	2005	$5.0 K
LHAAP-016	OLD LANDFILL (SWMU 16)	IRA	CAPPING	2005	$14.0 K
LHAAP-012	ACTIVE LANDFILL (SWMU 12)	FRA	INSTITUTIONAL CONTROLS	2007	TBD
LHAAP-012	ACTIVE LANDFILL (SWMU 12)	FRA	NATURAL ATTENUATION	2007	TBD
LHAAP-035	SUMPS (145) VARIOUS	FRA	WASTE REMOVAL - SOILS	2009	TBD
LHAAP-004	LHAAP PILOT WASTEWATER TREATMENT PLANT	IRA	WASTE REMOVAL - SOILS	2011	TBD
LHAAP-018	BURNING GROUND/WASHOUT POND(SWMU 18)	IRA	GROUND WATER TREATMENT	2011	TBD
LHAAP-024	FORMER UNLINED EVAP POND (SWMU 24)	IRA	GROUND WATER TREATMENT	2011	TBD

IRP Summary

Duration of IRP

Year of IRP Inception: 197906

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201504/204109

Date of IRP completion including Long Term Management (LTM): 204109

IRP Contamination Assessment

Contamination Assessment Overview

In early 2008, the installation-wide ecological risk assessment was completed. In 2012 it was discovered that explosives analysis data which had been deemed unusable was inadvertently included in the ecological risk assessment. The impact of removing the unusable data from the ecological risk assessment will be evaluated, additional samples will be collected and an ecological risk assessment addendum will be completed in 2012. Work currently being conducted under a performance-based contract (PBC) includes conducting additional sampling activities at several sites and finalizing outstanding FSs and EE/CAs, with PPs and a ROD to follow during calendar year 2012. Regulatory concurrence was obtained for reports recommending no action for these 11 sites: LHAAP-06, LHAAP-07, LHAAP-23, LHAAP-35, LHAAP-36, LHAAP-51, LHAAP-55, LHAAP-60, LHAAP-64, LHAAP-66, and LHAAP-68.

In 2008, DDs were signed for sites LHAAP-6, 7, 48, 51, 55, 60, 64, 66, and 68. Also in 2008 the FSs were completed for all applicable total environmental restoration contract (TERC) sites including the three TERC NPL sites (LHAAP-32, LHAAP-37, and LHAAP-67) and a ROD document was signed for TERC NPL site LHAAP-32 in 2008. No action DDs were signed in 2008 for the remaining TERC sites (LHAAP-8, LHAAP-48, LHAAP-53, and LHAAP-59) and in 2010 the RODs were signed for LHAAP-37, LHAAP-46, LHAAP-49, LHAAP-50, LHAAP-58, LHAAP-67 and Pistol Range. In 2012, DDs will be completed for LHAAP-05, -09, -15, -19, -34, -52, -56, -57, -61, -63, -65, -69, -70, & -71. In 2012, the following IRP sites were added to AEDB-R: LHAAP-46, -47, -49, -56, -59, & -65.

Sediment samples collected by the Army from Caddo Lake near the mouths of two branches of Goose Prairie Creek indicated elevated lead and mercury concentrations. The sampling locations are outside of the installation boundary. In 2004, an investigation of contaminants in fish tissue from three Caddo Lake sites, one of which is upgradient at Clinton Lake, was funded by the USEPA Region 6 and performed by the TCEQ Region 5. It concluded that mercury was present at elevated levels from all three sites, dioxin was also present, but highest at Clinton Lake (a lake upstream from LHAAP), and pesticides, polychlorinated biphenyls (PCB) and perchlorate were not detected in either edible fish fillets or whole fish.

Approximately 7,000 acres of the plant have transferred to the USFWS and are being operated as the Caddo Lake National Wildlife Refuge. The remaining acreage is also expected to transfer to the USFWS as restoration activities are completed.

Cleanup Exit Strategy

As RODs are finalized and RDs and RAs are implemented, long-term RA(O) and monitoring will continue until ramp-down.

Ramp-down/exit strategies at the sites will continue to be based on human and environmental exposure.

IRP Previous Studies

	Title	Author	Date
1979			
	Assessment of Contaminant Migration, Longhorn Army Ammunition Plant	Robert H. Balter Co	APR-1979
1980			
	Installation Assessment of Longhorn Army Ammunition Plant, Report No. 150	U.S. Army Toxic and Hazardous Materials Agency	FEB-1980
	Land Disposal Study No. 38-26-0104-81, LHAAP, 23 January - 8 February 1980	USAEHA	MAY-1980
1981			
	Wastewater Engineering Special Study No. 32-62-0182-82	Wastewater Engineering Special Study No. 32-62-0182-82	SEP-1981
1983			
	Phase II, Hazardous Waste Management Special Study No. 39-26-0147-83, DARCOM Open-Burning/Open-Detonation Grounds Evaluation, LHAAP, 31 July - 3 August 1981	USAEHA	SEP-1983
1984			
	Closure of Unlined Evaporation Pond	Kindle, Stone and Associates	JUN-1984
	Longhorn Army Ammunition Plant Contamination Survey, Contract # DAAA09-78-C-3004,	Environmental Protection Systems, Inc	JUN-1984
1986			
	Closure Report, Unlined Evaporation Pond, Longhorn Army Ammunition Plant	Army Corps of Engineers, Tulsa	JUN-1986
1994			
	Interim Risk Assessment for Burning Ground 3 & Unlined Evaporation Pond Sites (18 & 24)	Army Corps of Engineers, Tulsa	JAN-1994
	Soil and Groundwater Background Concentration Study	Army Corps of Engineers, Tulsa	MAY-1994
	Remedial Investigation /Feasibility Study Report for Areas 13 & 14	Army Corps of Engineers, Tulsa	JUN-1994
	Draft Final Workplan Addendum Soil and Groundwater Background Concentration Study	Army Corps of Engineers, Tulsa	JUN-1994
1995			
	Final Soil Background Concentration Report (Revised)	Army Corps of Engineers, Tulsa	MAR-1995
	Groundwater Background Concentration Report	Army Corps of Engineers, Tulsa	MAY-1995
	Final HydroGeologic Assessment Report	Army Corps of Engineers, Tulsa	MAY-1995
	Final Prop Plan of Action for Sites 13 & 14	Army Corps of Engineers, Tulsa	JUN-1995
	Groundwater Sampling Results-May 95, Interim Remedial Action-Phase III, Burning Ground 3 and UEP, LHAAP 18 & 24	Army Corps of Engineers, Tulsa	JUN-1995
	Remedial Investigation/Feasibility Study Report for Sites 13 & 14	Army Corps of Engineers, Tulsa	JUN-1995
	Final Record of Decision for Early Interim Remedial Action at Landfill Sites 12 & 16	Army Corps of Engineers, Tulsa	JUL-1995
1996			

IRP Previous Studies

	Title	Author	Date
1996			
	Final Work Plan for Phase III Interim Remedial Action at Burning Ground 3	Army Corps of Engineers, Tulsa	JAN-1996
	Group 4 Baseline Risk Assessment Work Plan	Army Corps of Engineers, Tulsa	FEB-1996
	Final Project Work Plans, Interim Remedial Action Landfills 12 & 16 Caps	Army Corps of Engineers, Tulsa	JUN-1996
	Group 4 Sumps Groundwater Monitoring Quarterly Report	Army Corps of Engineers	JUN-1996
	Draft Final Design Analysis Report for the Site 16 Time Critical Removal Action	Army Corps of Engineers	JUN-1996
	Draft Final Comprehensive Chemical Data Acquisition Plan for the RI/FS	Army Corps of Engineers, Tulsa	JUL-1996
	Draft Final Field Summary Report for the Phase II, Group 2 Sites Remedial Investigation	Army Corps of Engineers, Tulsa	JUL-1996
	Treatment Simulation and Toxicity Testing Results of Site 16 Groundwater	Army Corps of Engineers, Tulsa	AUG-1996
	Final Project Construction Drawings, Interim Remedial Action, Landfill 12 & 16 Caps	Army Corps of Engineers, Tulsa	AUG-1996
1997			
	Final Remedial Investigation Report Group 1 Sites (Sites 1, 11, 27, and XX) and Vol. 2 Baseline Risk Assessment	Army Corps of Engineers, Tulsa	APR-1997
1998			
	Final Record of Decision for Early Interim Remedial Action at Group 1 Sites	Army Corps of Engineers, Tulsa	FEB-1998
	Group 2 Final Workplan	Army Corps of Engineers, Tulsa	MAR-1998
	Environmental Baseline Study	Army Corps of Engineers, Tulsa	APR-1998
	Group 4 Final Workplan	Army Corps of Engineers, Tulsa	JUL-1998
2000			
	Site 16 Risk Assessment	Army Corps of Engineers, Tulsa	MAR-2000
	Hazardous and Medical Waste Study - Response Complete Verification and Relative Risk Site Evaluation for the Longhorn Army Ammunition Plant	USACHPPM	JUL-2000
	Final Site 16 Remedial Investigation Report	Army Corps of Engineers, Tulsa	OCT-2000
2001			
	Final Remedial Investigation Report for Group 2 Sites	Jacobs Engineering Group, Inc	APR-2001
	Baseline Risk Assessment: Human Health for Site 16 Landfill Remedial Investigation and Feasibility Study	Jacobs Engineering Group, Inc	JUN-2001
	Final Ecological Risk Assessment: Supplement to Site 16 Landfill Remedial Investigation Report	Jacobs Engineering Group, Inc	OCT-2001
2002			
	Final Group 4 Sites Remedial Investigation Report (Sites 35A, 35B, 46, 47, 48, 50, 60, and Goose Prairie Creek)	Jacobs Engineering Group, Inc	JAN-2002
	Final Group 4 Sites Remedial Investigation Addendum (Sites 04, 08, 67, and Hydrocarbon Study)	Jacobs Engineering Group, Inc	FEB-2002
	Final Group 2 Sites Remedial Investigation Report Addendum (Site 49)	Jacobs Engineering Group, Inc	FEB-2002

IRP Previous Studies

	Title	Author	Date
2002			
	Final Feasibility Study for Site 16	Jacobs Engineering Group, Inc	MAR-2002
	Final Five-Year Review for Sites 18 & 24 (Burning Ground No. 3), Site 16 (Old Landfill), and Site 12 (Sanitary Landfill)	Complete Environmental Service	AUG-2002
	Group 2 Sites Baseline Human Health and Screening Ecological Risk Assessment (Sites 12, 17, 18/24, 29, 32, 49, Harrison Bayou, and Caddo Lake)	Jacobs Engineering Group, Inc	AUG-2002
2004			
	Final Installation-Wide Background Study Workplan	Shaw Environmental and Infrastructure	JAN-2004
	Final Groundwater Data Gaps Investigation Workplan (Groups 2 and 4)	Shaw Environmental and Infrastructure	FEB-2004
	Final Technical Memorandum: Modeling Approach for Derivation of Soil and Groundwater Concentrations Protective of Surface Water and Sediment	Shaw Environmental and Infrastructure	MAR-2004
	Final Sediment Sampling Report for Caddo Lake and Clinton Lake	Shaw Environmental and Infrastructure	APR-2004
	Final Environmental Condition of Property I	Shaw Environmental and Infrastructure	MAY-2004
	Final Background Soil Study Report	Shaw Environmental and Infrastructure	JUL-2004
	Final Evaluation of LHAAP-45 Surface Soil Analytical Data	Shaw Environmental and Infrastructure	SEP-2004
	Final Groundwater Data Gaps Investigation Workplan (Groups 2 and 4), Addenda 1 and 2	Shaw Environmental and Infrastructure	SEP-2004
	Final Environmental Condition of Property II	Army Corps of Engineers, Tulsa	NOV-2004
2005			
	Final Site 12 Feasibility Study	Shaw Environmental and Infrastructure	JAN-2005
	Final Environmental Site Assessment Phase I and II Report	Plexus Scientific Corporation	FEB-2005
	Final Feasibility Report for Site 12 Addendum (Revision 2)	Shaw Environmental and Infrastructure	MAR-2005
	Final Proposed Plan for Landfill 12 (LHAAP-12),	Shaw Environmental and Infrastructure	MAR-2005
	Final Project Report Plant-Wide Perchlorate Investigation	Solutions To Environmental Problems (STEP)	APR-2005
	Final Site Inspection Report for the Military Munitions Response Program	Engineering-Environmental Management, Inc	JUN-2005
	Final Feasibility Study for LHAAP-67 (Aboveground Storage Tank Farm),	Shaw Environmental and Infrastructure	AUG-2005
	Final Feasibility Study for LHAAP-35B (37) (Chemical Laboratory)	Shaw Environmental and Infrastructure	OCT-2005
	Final Site Evaluation Report for LHAAP-32 (Former Waste TNT Disposal Plant)	Shaw Environmental and Infrastructure	NOV-2005
2006			
	Final Installation-Wide Work Plan	Shaw Environmental and Infrastructure	JAN-2006
	Decision Documentation for LHAAP-03 (Wastewater	Shaw Environmental and	JAN-2006

IRP Previous Studies

	Title	Author	Date
2006			
	Collection At Paint Shop), LHAAP-06 (Building 54F), and LHAAP-23 (Building 707-C Storage Area for PCBs),	Infrastructure	
	Final Work Plan for Engineering Evaluation / Cost Analysis for Military Munitions Response Program	CAPE	MAR-2006
	Final Background Surface Water and Sediment Study Report	Shaw Environmental and Infrastructure	JUL-2006
	Draft Final Proposed Plan, LHAAP-37 & 67	Shaw Environmental and Infrastructure	JUL-2006
	Final Record of Decision, LHAAP-12	US Army	JUL-2006
	Remainder of PBC docs that have been submitted :	Workplans; Summary report for 46 and pistol range (Draft); Evaluation Report for 02 (Draft)	SEP-2006
	Draft Final Site Evaluation Report, LHAAP-02; Work Plan Addenda for LHAAP-04, 07, 46, 51, 35/36, 29, Pistol Range, and Chromium Specification;	Shaw Environmental and Infrastructure	SEP-2006
	Draft Final Evaluation of Monitored Natural Attenuation, LHAAP-12, 37 & 67	Shaw Environmental and Infrastructure	DEC-2006
2007			
	Final Groundwater Monitoring Report Sites 12 and 16 (spring 2003, spring 2004 and winter 2004)	ALL Consulting	JAN-2007
	Final Modeling Report,Derivation of Soil and Groundwater Concentrations Protective of Surface Water and Sediment, Rev. 01	Shaw Environmental and Infrastructure	FEB-2007
	Final LHAAP-12 Well Abandonment and Installation Report Groundwater, Data Gaps Investigation Groups 2 and 4	Shaw Environmental, Inc.	APR-2007
	Final Site Evaluation Report, LHAAP-48 & 53	Shaw Environmental and Infrastructure	APR-2007
	Final Addendum 11 Monitored Natural Attenuation Sampling LHAAP-16, -17, -29, -46, -47, -50, 35A(58), Final Installation-Wide Work Plan	Shaw Environmental, Inc.	MAY-2007
	Legal Notice - Industrial Solid Waste Notice of Land Use Controls at LHAAP-12	Rose Zeiler, LHAAP Site Manager	JUN-2007
	Final Results of Modeling for Natural Attenuation of Trichloroethene at LHAAP-12	Shaw Environmental, Inc.	JUN-2007
	Evaluation of Perimeter Well Data for Use as Groundwater Background	Shaw Environmental, Inc.	JUN-2007
	Final Natural Attenuation Evaluation LHAAP-12, LHAAP-35B(37) and LHAAP-67 (Report and Appendix A)	Shaw Environmental, Inc.	JUN-2007
	Remedial Design Addendum Landfill 12 (LHAAP-12)	Shaw Environmental, Inc.	JUN-2007
	Baseline Ecological Risk Assessment Surface Water Sampling Plan for Goose Prairie Creek, Revision 01	Shaw Environmental, Inc.	JUL-2007
	Final Results of Modeling for Natural Attenuation of Chlorinated Solvents in Groundwater at LHAAP-35B(37) & 67	Shaw Environmental, Inc.	JUL-2007
	Final LHAAP-59 Site Investigation Report	Shaw Environmental, Inc.	AUG-2007
	Draft Final Second Five year review Report, LHAAP-12, 16, 18 & 24	Shaw Environmental, Inc.	AUG-2007
	Memorandum: Supplemental Groundwater Activities at LHAAP-37	Shaw Environmental, Inc.	SEP-2007

IRP Previous Studies

	Title	Author	Date
2007			
	Final Landfill 12 (LHAAP-12) Operating Properly and Successfully Demonstration Report	Shaw Environmental, Inc.	SEP-2007
	Memorandum: Analysis of Soil Samples Collected from LHAAP-59 on September 14, 2007	Shaw Environmental, Inc.	OCT-2007
	Final Installation-Wide Baseline Ecological Risk Assessment Vols. I & II	Shaw Environmental, Inc.	NOV-2007
	Final Site Investigation Report: LHAAP-06, 07, 51, 55, 64, 66 and 68 (rev 1)	Shaw Environmental, Inc.	DEC-2007
2008			
	Final Proposed Plan, LHAAP-08	Shaw Environmental, Inc.	JAN-2008
	Final Data Evaluation Report Chemical Concentrations in soil Samples Associated with LHAAP-35/36 Sumps	Shaw Environmental, Inc.	JAN-2008
	Final Proposed Plan, LHAAP-32	Shaw Environmental, Inc.	JAN-2008
	Final Proposed Plan, LHAAP-48 & 53	Shaw Environmental, Inc.	JAN-2008
	Draft Final LHAAP-32 Record of Decision	Shaw Environmental, Inc.	MAR-2008
	Draft Final LHAAP-08, 48 & 53 Decision Document	Shaw Environmental, Inc.	MAR-2008
	Final Decision Document, LHAAP-6, 7, 51, 55, 64, 66 and 68	Shaw Environmental, Inc.	JUL-2008
	Final LHAAP-32 Record of Decision	Shaw Environmental, Inc.	AUG-2008
	Final LHAAP-59 Decision Document	Shaw Environmental, Inc.	SEP-2008
	Final Five-Year Review Second Five-Year Revise Report for LHAAP-12, 16 and 18/24	Shaw Environmental Inc.	SEP-2008
	Final LHAAP-60 Decision Document	Shaw Environmental, Inc.	OCT-2008
	Final LHAAP-8, 48, 53 and 002-R Decision Document	Shaw Environmental, Inc.	NOV-2008
2009			
	Draft Site Evaluation Report and Soil Removal Report for LHAAP-49	Shaw Environmental, Inc.	JAN-2009
	Draft Final LHAAP-37/67 Record of Decision	Shaw Environmental, Inc.	JAN-2009
	Final Site Investigation Report, LHAAP-2	Shaw Environmental, Inc.	JAN-2009
	Final Engineering Evaluation/Cost Analysis, LHAAP-4	Shaw Environmental, Inc.	MAR-2009
2010			
	Final Proposed Plan, LHAAP-46	Shaw Environmental, Inc.	JAN-2010
	Final Proposed Plan, LHAAP-35A(58)	Shaw Environmental, Inc.	JAN-2010
	Final Proposed Plan, LHAAP-50	Shaw Envronmental, Inc.	JAN-2010
	Final Proposed Plan, LHAAP-49	Shaw Environmental, Inc.	JAN-2010
	Final Proposed Plan, LHAAP-17	Shaw Environmental, Inc.	MAY-2010
	Final Record of Decision, LHAAP-37/67	US Army	JUN-2010
	Final Decision Document, LHAAP-02	Shaw Environmental, Inc.	JUL-2010
	Final Record of Decision, LHAAP-49	Shaw Environmental, Inc.	AUG-2010
	Final Record of Decision, LHAAP-46	Shaw Environmental, Inc.	SEP-2010
	Final Record of Decision, LHAAP-50	Shaw Environmental, Inc.	SEP-2010
	Final Record of Decision, LHAAP-35A(58)	Shaw Environmental, Inc.	SEP-2010
	Final Proposed Plan, LHAAP-16	Shaw Environmental, Inc.	SEP-2010

IRP Previous Studies

	Title	Author	Date
2010			
	Final Decision Document, LHAAP-35/36	Shaw Environmental, Inc.	OCT-2010
2011			
	Final Proposed Plan, LHAAP-29	Shaw Environmental, Inc.	MAR-2011
	Final MC Summary Report, LHAAP-001-R-01 & LHAAP-003-R-01	Shaw Environmental, Inc.	JUN-2011
	Final Proposed Plan, LHAAP-001-R-01 & LHAAP-003-R-01	Shaw Environmental, Inc.	JUN-2011
	Final Feasibility Study, LHAAP-47	Shaw Environmental, Inc.	JUL-2011
	Final Remedial Design, LHAAP-35B(37) & LHAAP-67	US Army Corps of Engineers, Tulsa District	AUG-2011
	Final Remedial Design, LHAAP-46	Shaw Environmental, Inc.	SEP-2011
	Final Remedial Design, LHAAP-50	Shaw Environmental, Inc.	SEP-2011
	Final Remedial Design, LHAAP-35A(58)	Shaw Environmental, Inc.	SEP-2011

LONGHORN ARMY AMMUNITION PLANT

Non-BRAC Excess

Installation Restoration Program
Site Descriptions

Site ID: LHAAP-001
Site Name: INERT BURNING GROUNDS (SWMU 1)

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: LOW

Phases	Start	End
PA	197906	198406
SI	197906	198406
RI/FS	199008	199801
LTM	201201	204109

RIP Date: N/A

RC Date: 199801

SITE DESCRIPTION

A no action ROD was signed by the USEPA in February 1998; the site is closed and suitable for non-residential use.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-002
Site Name: VACCUM TRUCK OVERNITE PARKING LOT

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: NOT EVALUATED

Phases	Start	End
PA	197906	198705
LTM	201201	204109

RIP Date: N/A

RC Date: 198705

SITE DESCRIPTION

A notification [not a remedy or land use control (LUC)] has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews are required.

Site ID: LHAAP-003
Site Name: BUILDING 722-PAINT SHOP

STATUS

Parcel: NONE

Regulatory Driver: RCRA
RRSE: MEDIUM

Contaminants of Concern: Metals

Media of Concern: Soil

Phases	Start	End
RFA	197906	198705
RFI/CMS	201201	201212
IRA	201201	201212
LTM	201301	204109

RIP Date: N/A

RC Date: 201212

SITE DESCRIPTION

LHAAP-03 was a waste collection site outside of the paint shop at Building 722-P. Building 722-P was used for paint spraying and polyurethane spray coating of various items. Heavy metal-based primers, other waste solvents and contaminated rags were collected in a 55-gallon drum on a gravel pad in an open-sided shed.

The site investigation report for LHAAP-03 was completed in August 2009. The site investigation identified soil contaminated with metals exceeding maximum soil contamination concentrations (MSCC). An EE/CA has been drafted to evaluate removal action alternatives for the metals-contaminated soil at LHAAP-03.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. Actions to be completed before the PBA ends are completion of interim soil removal and primary document [no further action (NFA) ROD]. The EE/CA to be completed in 2012 recommends excavation and off-site disposal. At this time, it is expected that the post-PBA LTM will involve five-year reviews.

Site ID: LHAAP-004
Site Name: LHAAP PILOT WASTEWATER TREATMENT PLANT

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: NOT EVALUATED

Contaminants of Concern: Perchlorate

Media of Concern: Groundwater

Phases	Start	End
PA	197906	198705
RI/FS	201112	201306
RD	201201	201311
IRA	200908	201108
RA(C)	201201	201409
RA(O)	201201	201709
LTM	201709	204109

RIP Date: 201409

RC Date: 201709

SITE DESCRIPTION

The LHAAP Pilot wastewater plant was closed under RCRA guidelines in November 1997. The installation-wide baseline ecological risk assessment in 2007 did not identify any potential risk to ecological receptors. Additional investigations after the risk assessment found unacceptable levels of mercury in soil, and perchlorate, an emerging contaminant, in soil at levels that could potentially migrate into the groundwater. A soil removal action was recommended in the 2009 EE/CA for LHAAP-04. The soil removal was performed, and is documented in the final completion report, non-time critical removal action at LHAAP-04. As part of the removal action, a well was installed to sample groundwater beneath the backfilled excavation area. The results indicated that perchlorate was present in the groundwater at a concentration that exceeded the TCEQ groundwater-Ind value for perchlorate. An FS has been drafted to evaluate RA alternatives for the perchlorate- contaminated groundwater at LHAAP-04.

CLEANUP/EXIT STRATEGY

This site is being addressed under a performance-based acquisition (PBA) through September 2017. Actions to be completed before the PBA ends are completion of primary documents (ROD and RD), and accomplishment of RIP. The FS is to be completed in 2012. The remedy being considered for this site is: in situ bioremediation and monitored natural attenuation (MNA) for groundwater, and LTM. The final remedy has not been selected yet for this site. At this time, it is expected that the post-PBA long-term RA(O) and LTM will involve MNA and LUC.

Site ID: LHAAP-006
Site Name: BUILDING 54F SOLVENT

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: NOT EVALUATED

Phases	Start	End
PA	197906	198705
LTM	201201	204109

RIP Date: N/A

RC Date: 198705

SITE DESCRIPTION

An NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-007
Site Name: BUILDING 50G DRUM PROCESSING

STATUS

Parcel: NONE

Regulatory Driver: RCRA

RRSE:

Phases	Start	End
RFA	197906	198705
LTM	201201	204109

RIP Date: N/A

RC Date: 198705

SITE DESCRIPTION

An NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-008
Site Name: SEWAGE TREATMENT PLANT

STATUS

Parcel: NONE

Regulatory Driver: RCRA

RRSE:

Phases	Start	End
RFA	197906	198705
LTM	201201	204109

RIP Date: N/A

RC Date: 198705

SITE DESCRIPTION

The site has been cleaned under RCRA guidelines. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-011
Site Name: SUS TNT BURIAL SITE AT AVE P&Q(SWMU 11)

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: LOW

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199008	199801
LTM	201201	204109

RIP Date: N/A

RC Date: 199801

SITE DESCRIPTION

An NFA ROD was signed by the USEPA by February 1998 The site is closed and suitable for industrial use. A five-year review report in the form of a memorandum report stating the use of the site remains industrial will be required for internal Army records.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-012
Site Name: ACTIVE LANDFILL (SWMU 12)

STATUS

Parcel: LANDFILL 12 (FWS) (51 acres)

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199008	200607
RD	200509	200706
IRA	199509	200509
RA(C)	200509	200706
RA(O)	200509	201709
LTM	201709	204109

RIP Date: 200706

RC Date: 201709

SITE DESCRIPTION

Landfill 12 (previously called the active landfill), consisting of seven acres, was used for the disposal of nonhazardous industrial waste. The landfill had been used intermittently since 1963. Continuous use of the landfill began around 1978. Although the back section had been closed, the front section of the landfill continued to be used until its closure in March 1994. Site inspections (SI) conducted in 1993 concluded that an early IRA (landfill cap) was necessary to reduce further contamination to the groundwater. In 1997 the cap was completed, using treated soils from LHAAP-18 as subgrade fill. Cap maintenance started in 1998, and in 2002 the first five-year review was completed. The second five-year review was completed in 2008.

In 2002 the remedial investigation (RI) was completed. Groundwater analysis showed that some metals, chlorides, VOC, explosive compounds, and low levels of perchlorate were present. Surface water and sediment sample analysis showed similar contamination. Low levels of perchlorate were also detected in the soils. In three groundwater sampling rounds conducted in February 2003, February 2004, and December 2004, perchlorate was not detected with reporting limits of four micrograms per liter (ug/L) in the first two rounds, and only detected twice when a method with a lower reporting limit (0.2 ug/L) was used. Chromium in groundwater is now believed to be related to stainless steel well casings. In January 2006 the 12 wells with stainless steel casings and screen were removed. In 2006, five new wells were installed for long-term monitoring using polyvinyl chloride casing and screen. Results of subsequent groundwater sampling supported the postulation that the stainless steel casing in the monitoring wells was the source of the chromium.

In 2005 the FS was finalized. The recommended final remedy is MNA with LUCs consisting of cap protective provisions and groundwater restrictions. In August 2006 sampling to support MNA began. The PP addressed human and ecological risk. The ROD has been signed (July 2006), and in June 2007 the RD addendum was signed. The surrounding sediment and surface water were evaluated as part of the plant-wide ecological risk assessment and no chemicals of concern were identified.

Post-PBA (FY2015 and out-years) actions will include MNA with LUC consisting of cap protective provisions and groundwater restrictions.

CLEANUP/EXIT STRATEGY

As a part of RA(O), cap maintenance, MNA, and five-year reviews will be funded under the PBA through September 2017. Post-PBA activities will be limited to long-term RA(O) and five-year reviews to review MNA progress and any new site information.

Site ID: LHAAP-013
Site Name: SUS TNT BET ACTIVE&OLD LANDFILL(SWMU 13)

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: LOW

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199008	199512
LTM	201201	204109

RIP Date: N/A

RC Date: 199512

SITE DESCRIPTION

An NFA ROD was signed by the USEPA in February 1996. The site is closed and suitable for industrial use. A five-year review report in the form of a memorandum report stating the use of the site remains industrial will be required for internal Army records.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-014
Site Name: AREA 54 BURIAL GRND (SWMU 14)

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: LOW

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199008	199512
LTM	201201	204109

RIP Date: N/A

RC Date: 199512

SITE DESCRIPTION

An NFA ROD was signed in February 1996. The site is closed and suitable for industrial use. A five-year review report in the form of a memorandum report stating the use of the site remains industrial will be required for internal Army records.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-016
Site Name: OLD LANDFILL (SWMU 16)

STATUS

Parcel: Burning Ground (FWS) (380 acres)

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater, Soil, Surface Water

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199008	201309
RD	200508	201312
IRA	199410	200509
RA(C)	200508	201403
RA(O)	200508	201709
LTM	201709	204109

RIP Date: 201403

RC Date: 201709

SITE DESCRIPTION

Landfill 16 (formally called the old landfill), consisting of about 22 acres, was originally used to dispose of products generated from the TNT wastewater treatment plant (WWTP); however, a variety of waste was disposed of in the landfill until the 1980s. This waste may have included burned rocket motor casings, substandard TNT, barrels of chemicals, oil, paint, scrap iron and wood. VOCs and metals above action levels have been found in the soil, surface water and groundwater around the site. Low levels of explosive compounds were detected in the groundwater.

SIs conducted in 1993 concluded that an early IRA (landfill cap) was necessary to reduce further contamination to the groundwater. The cap was completed in 1998, using treated soils from LHAAP-18 as subgrade fill. In late-1997, as part of the treatability study, eight extraction wells were installed to prevent contaminated groundwater from impacting Harrison Bayou. This system is still in operation; however, extracted water volume is low. Groundwater extracted from the Landfill 16 containment system is piped to the LHAAP-18 groundwater treatment plant (GWTP).

Perchlorate was first detected in groundwater at this site in 2000. VOCs and perchlorate have been detected in the surface water of Harrison Bayou.

In 2002 the RI was completed along with a five-year review. In March 2002 a final interim FS for Site 16 was issued. Under the PBC, a draft FS addendum to the March 2002 interim FS was submitted in February 2007. The FS was finalized in March 2010. A preliminary MNA evaluation was completed in 2007. The second five-year review was completed in 2008. The PP was finalized September 2010. Quarterly surface water sampling of the Harrison Bayou area has not shown significant contamination. The ROD will be signed in 2012 and will include cap maintenance, in situ bioremediation, biobarriers, MNA and LUCs.

An environmental security technology certification program research and development project for enhanced in situ bioremediation (VOCs, perchlorate and explosives in groundwater) was started in 2003 and continued to 2008. Ecological concerns most likely will be addressed with the final remedy at this site.
Post-PBA actions will include RA(O) and groundwater monitoring.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. Actions to be completed before the PBA ends are completion

Site ID: LHAAP-016
Site Name: OLD LANDFILL (SWMU 16)

of primary documents (ROD and RD), and accomplishment of remedy-in-place (RIP). The PP complete in 2010 and RD to be completed in 2012 selected the following remedies for this site: passive biobarriers, in situ bioremediation and MNA for groundwater, and LTM. At this time, it is expected that the post-PBA long-term RA(O) and LTM will involve monitoring MNA with maintenance of the cap and LUC.

Site ID: LHAAP-017
Site Name: NO 2 FLASHING AREA BRN GROUND(SWMU 17)

STATUS

Parcel: Burning Ground (FWS) (380 acres)

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Explosives, Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199008	201309
RD	200508	201312
RA(C)	200508	201403
RA(O)	200508	201709
LTM	201709	204109

RIP Date: 201403

RC Date: 201709

SITE DESCRIPTION

This site (about 500 by 600 feet) was used to burn bulk TNT, photoflash powder, and reject material from Universal Match Corporation's production processes. From 1959 until 1980 the site was operated as a burning ground. In 1959 buildings razed at Site 29 (the former TNT production area) were burned at Burning Ground No. 2/Flashing Area (LHAAP-17). This site is situated about 400-500 feet southwest of Burning Ground No. 3.

In 1984 waste residues were removed and the area grassed over. VOCs and explosive compounds were found in the groundwater. Explosive compounds were found in the soil. In 2000 perchlorate was detected at this site [in groundwater at 300 parts per million (ppm), but less in soil].

In 2002 the RI was completed and a draft FS was prepared. In 2004 additional data gap studies were completed. A revised draft FS was submitted in 2009 by the PBC and the FS was finalized in 2010. The PP was finalized in May 2010.The ROD will be signed in 2012 and will include soil removal, extraction and treatment of groundwater, MNA and LUCs.

A research and development project for enhanced in situ-bioremediation (VOCs, perchlorate and explosives in soil and groundwater) was started in 2002 and completed in 2004. Results indicate that perchlorate contamination was reduced. An additional intermediate well was installed at the site in February 2008.

Post-PBA actions during LTM will involve monitoring of MNA.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy selected for this site is groundwater extraction, followed by MNA for groundwater, and excavation and disposal for soil. Tasks to be completed before September 2017 are completion of primary documents (ROD and RD), and accomplishment of RIP. At this time, it is expected that the post-PBC long-term RA(O) and LTM will involve monitoring of MNA and LUC.

Site ID: LHAAP-018
Site Name: BURNING GROUND/WASHOUT POND(SWMU 18)

STATUS

Parcel: Burning Ground (FWS) (380 acres)

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Metals, Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater, Soil, Surface Water

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199008	201401
RD	200508	201406
IRA	199503	201108
RA(C)	200508	201504
RA(O)	200508	204109

RIP Date: 201504

RC Date: 204109

SITE DESCRIPTION

This site, also known as Burning Ground No. 3 (34.5 acres), began operations in 1955. It was used for the treatment, storage, and disposal of solid and liquid explosives, pyrotechnics, and combustible solvent wastes by open burning, open detonation, and burial. The unlined evaporation pond (UEP) (LHAAP-024) was constructed in 1963 within Burning Ground No. 3. Explosive compounds, VOCs, and metals were detected in the soils and groundwater. In 1998 perchlorate was detected in the groundwater. In 1986 sludge from the UEP was removed and the area was capped. Quarterly monitoring has been conducted at the site since closure of the UEP.

In May 1995 an IRA ROD was signed. This IRA addressed soil and shallow groundwater contamination. In 1997, 30,000 cubic yards (cy) of soil were excavated and treated. The treated soil was used as fill in LHAAP-012 and -016. A GWTP, with approximately 5,000 feet of interception collection trenches, has been installed to control migration of contaminated groundwater. After treatment the extracted groundwater is discharged into Harrison Bayou. In 1999 perchlorate was detected at this site and a fluidized bed reactor treatment system was installed.

In 2002 the RI was completed, followed by a draft FS. In September 2007 the PBC contractor began an optimization pilot study for the groundwater extraction system with a report completed in February 2009.

Post-PBA actions during LTM are expected to include monitoring of MNA.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy being considered for this site is optimization of the groundwater extraction system, bioaugmentation, and MNA. Tasks to be completed before September 2017 are completion of primary documents (FS, PP, ROD, RD) and accomplishment of RIP and continued RA(O).

The final remedy has not been selected yet for this site. At this time, the post-PBC long-term RA(O) and LTM are expected to include groundwater extraction, bioremediation and five-year reviews.

Site ID: LHAAP-023
Site Name: BUILDING 707-STORAGE AREA PCBS

STATUS

Parcel: NONE

Regulatory Driver: RCRA

RRSE:

Phases	Start	End
RFA	197906	198705
CS	197906	198705
LTM	201201	204109

RIP Date: N/A

RC Date: 198705

SITE DESCRIPTION

This site is closed and is suitable for non-residential use.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-024
Site Name: FORMER UNLINED EVAP POND (SWMU 24)

STATUS

Parcel: Burning Ground (FWS) (380 acres)

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Metals, Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA	199005	199005
SI	199005	199008
RI/FS	199008	201401
RD	200508	201406
IRA	199503	201108
RA(C)	200508	201504
RA(O)	200508	204109

RIP Date: 201504

RC Date: 204109

SITE DESCRIPTION

This three-acre UEP was constructed in 1963 within Burning Ground No. 3. Explosive compounds, VOCs, and metals were detected in the soils and groundwater. In 1999, perchlorate was detected in the groundwater. In 1986, sludge from the UEP was removed and the area was capped. Quarterly monitoring has been conducted at the site since closure of the UEP.

In May 1995, an IRA ROD was signed. This IRA addressed soil and shallow groundwater contamination. In 1997, 30,000 cy of soil was excavated and treated. The treated soil was used as fill in LHAAP-012 and LHAAP-016. A GWTP, with approximately 5,000 feet of interception collection trenches, has been installed to control migration of contaminated groundwater. After treatment, the extracted groundwater is discharged into Harrison Bayou. In 1999 perchlorate was detected at this site and in 2001 a fluidized bed reactor treatment system was installed.

In 2002 the RI was completed, followed by a draft FS. In September 2007 the PBC contractor began an optimization study for the groundwater extraction system with a report on the results completed February 2009.

Post-PBA actions are currently expected to involve monitoring of MNA.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. As with LHAAP-018, the remedy being considered for this site is optimization of the groundwater extraction system, bioaugmentation and MNA. Tasks to be completed before September 2017 are completion of primary documents (FS, PP, ROD, RD) and accomplishment of RIP and continued RA(O).

The final remedy has not been selected yet for this site but the post-PBC long-term RA(O) and LTM are expected to include groundwater extraction, bioremediation and five-year reviews.

Site ID: LHAAP-029
Site Name: FORMER TNT PRODUCTION AREA(SWMU 29)

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Munitions constituents (MC), Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater, Sediment, Soil, Surface Water

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199008	201309
RD	200508	201312
RA(C)	200508	201403
RA(O)	200508	201709
LTM	201709	204109

RIP Date: 201403

RC Date: 201709

SITE DESCRIPTION

The former TNT production area consisting of about 85 acres, was in operation from April 1943 to August 1945 as a six-line plant, with a supporting acid plant. The plant produced 180 million kilograms of TNT throughout the period of operation. A bulk toluene storage area, servicing the TNT production area, was located adjacent to the production area. The TNT wastewater (red water) from the production of the TNT was sent through wooden pipelines to a storage tank and pump house, and then to the TNT WWTP (LHAAP-032). Cooling water (blue water) from the production area ran through main lines and into an open ditch. In 1959, the structures, except for the foundations, were demolished and removed. Through the late-1980s a portion of the northeast corner of the site (approximately two acres) was used for the washout of Pershing 1 and 2 rocket motor casings using trichloroethylene (TCE) and methylene chloride.

Explosive compounds have been detected in the soil, surface water, sediment, and groundwater samples. High concentrations of VOCs (including TCE and methylene chloride) have been detected in the groundwater with the highest concentrations in the intermediate hydrostratigraphic unit, and methylene chloride, dense non-aqueous phase liquid is suspected. In 2000 perchlorate was first detected in the soil and in the groundwater (at 88 ppm) at this site.

In 2002, the RI was completed and this site is included in the Group 2 draft FS. In FY2005 field sampling for soils was conducted. In FY2006, six wells were installed and sampled. Sediment samples were also collected from waste lines and outfall ditches. A revised draft FS was submitted by the PBC in 2008 and was finalized in 2010. The ROD will be signed in 2012 and will include soil removal, flushing and plugging lines, in situ chemical oxidation treatment of groundwater, MNA and LUCs.

LHAAP-49, the former acid plant (also known as former acid storage), was originally funded under LHAAP-29 due to the association in plant function. This was the location where acids were received and prepared for use in the TNT manufacturing process. The final site evaluation was finalized in 2009 and the ROD was finalized in 2010.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy being considered for this site is in situ groundwater remediation followed by MNA, flushing and plugging lines, and excavation and disposal for soil and sediments. Tasks to be completed before September 2017 are completion of primary documents (ROD, RD), and accomplishment of RIP. The final remedy has not been selected yet for this site. At this time, the post-PBA RA(O) is expected to involve MNA and LUC.

Site ID: LHAAP-035
Site Name: SUMPS (145) VARIOUS

STATUS

Parcel: East FIA II(FWS) (175 acres),Production Area Ib (FWS) (107.59 acres),Production Area Ia (FWS) (456.72 acres)

Regulatory Driver: CERCLA

RRSE: HIGH

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199301	200908
RD	200508	200908
RA(C)	200508	200908
RA(O)	200709	200908
LTM	201201	204109

RIP Date: 200908

RC Date: 200908

SITE DESCRIPTION

This site contained 125 industrial wastewater sumps. The sumps were located in different production areas within LHAAP. Many of the sumps were removed or closed in 1996.

Several buildings at sites where sumps were located have a history of perchlorate use. Perchlorate contamination at these sites has been identified in the soil, surface water and groundwater. Interim measures have been implemented to minimize the runoff of perchlorate to Goose Prairie Creek.

In 2002, the RI was completed and in late FY2003 the initial perchlorate assessment was completed. Additional soil sampling, for the sumps, was completed in fall 2006. The NFA DD was finalized in December 2010. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

LHAAP-002, LHAAP-003, LHAAP-004, LHAAP-006, LHAAP-007, LHAAP-036, LHAAP-058, LHAAP-060, LHAAP-65 and LHAAP-068 (PBC) and LHAAP-008 and LHAAP-037 (TERC) are associated with LHAAP-35 in AEDB-R because there were sumps at the sites and they are being funded through LHAAP-35; however, they are being addressed as separate sites for other unrelated environmental issues. With the PBC in 2005, funding for LHAAP-008 and LHAAP-037 remained with TERC through the RIP phase. Closeout actions for LHAAP-046 and LHAAP-047, both PBC sites, and LHAAP-048, a TERC site, are not currently listed in AEDB-R, but are being tracked under LHAAP-035.

LHAAP-008 and LHAAP-037 are being addressed through RD under the TERC. Through 2014, LTM for these sites will be addressed through the PBC after TERC. All other sites will be addressed under the PBC sites.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required. Soil that was found to be contaminated with perchlorate at sites where sumps were located is being addressed by those individual sites (i.e. LHAAP-047 and LHAAP-050)

Site ID: LHAAP-036
Site Name: EXPLOSIVE WASTE PADS (27)

STATUS

Parcel: NONE

Regulatory Driver: RCRA

RRSE:

Phases	Start	End
RFA	197906	198705
CS	197906	198705
LTM	201201	204109

RIP Date: N/A

RC Date: 198705

SITE DESCRIPTION

This site consists of 20 waste pads made of metal roof over four by eight concrete pad. It is included in Group 4 RI/FS. The NFA DD was finalized in December 2010. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-037
Site Name: CHEMICAL LABORATORY WASTE PAD

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: MEDIUM

Contaminants of Concern: Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
PA	199005	199008
RI/FS	201003	201006
RD	201006	201108
RA(C)	201201	201309
RA(O)	201201	201709
LTM	201709	204109

RIP Date: 201309

RC Date: 201709

SITE DESCRIPTION

This site is a collection point for spent solvents from the quality assurance (QA) lab. It consists of one 55-gallon drum set on a concrete pad. The site is included in the Group 4 RI/FS The ROD was finalized in August 2010 and included MNA and LUCs for the site. The RD was finalized in August 2011. The RA is on hold while a two-year bioplug demonstration is implemented at the site beginning in March 2012.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. Actions to be completed before the PBA ends are accomplishment of RIP followed by RA(O)/LTM including institutional controls (LUC). The RD complete in 2011 includes the following remedies for this site: MNA for groundwater, and LTM. At this time, it is expected that the post-PBA long-term RA(O) and LTM will involve monitoring MNA and LUC.

Site ID: LHAAP-045
Site Name: MAGAZINE AREA

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: MEDIUM

Phases	Start	End
PA	199005	199008
SI	200003	200409
LTM	201201	204109

RIP Date: N/A

RC Date: 200409

SITE DESCRIPTION

This site consists of 800 acres with 58 bunkers and two builds used for storage of munitions. SI conducted by US Army Center for Health, Promotion and Preventive Medicine (USCHPPM) determined perchlorate contamination. RI to be completed in September 2003. The final evaluation of LHAAP-45 surface soil analytical data was finalized in September 2004. The Site received USEPA concurrence for no further environmental investigation necessary. The site is closed and suitable for industrial use. A five-year review report in the form of a memorandum report stating the use of the site remains industrial will be required for internal Army records.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-046
Site Name: PLANT 2 AREA

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: MEDIUM

Contaminants of Concern: Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
PA	200201	200201
RI/FS	201006	201009
RD	201106	201109
RA(C)	201201	201304
RA(O)	201201	201709
LTM	201709	204109

RIP Date: 201304

RC Date: 201709

SITE DESCRIPTION

LHAAP-46, also known as Plant 2, had facilities for production of JB-2 propellant fuel 1944-1945 and was used to produce pyrotechnic ammunition, such as photoflash bombs, simulators, hand signals, and tracers for 40mm ammo from 1952-1956. Plant 2 was reactivated to produce pyrotechnic and illuminating devices from 1964 to 1997. Site investigations determined that groundwater was contaminated with VOCs. The ROD was finalized in September 2010 and includes MNA and LUCs for the site. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required. The RD was finalized in September 2011.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy selected for this site is MNA for groundwater. Tasks to be completed before September 2017 are accomplishment of RIP followed by RA(O)/LTM. The final remedy has been selected for this site. At this time, it is expected that the post-PBA RA(O) will involve monitoring MNA and LUC.

Site ID: LHAAP-047
Site Name: PLANT 3 AREA

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Metals, Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA	197906	198705
RI/FS	201201	201307
RD	201201	201312
RA(C)	201201	201410
RA(O)	201201	201709
LTM	201709	204109

RIP Date: 201410

RC Date: 201709

SITE DESCRIPTION

LHAAP-47, also known as Plant 3, was used from 1954 to the early-1980s to produce rocket motors. Some of the rocket motor facilities converted to produce pyrotechnic and illumination devices, and continued this operation until 1997. Site investigations determined that groundwater was contaminated with VOCs, perchlorate, and metals and a soil source for perchlorate was identified. The FS evaluating remedial alternatives for LHAAP-47 was finalized in July 2011. The RAs for this site have been funded under an existing contract.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy being considered for this site is bioaugmentation, biobarriers and MNA. Tasks to be completed before September 2017 are completion of primary documents (PP, ROD, RD) and accomplishment of RIP and continued RA(O).

The final remedy has not been selected yet for this site. At this time, the post-PBC long-term RA(O) and LTM are expected to include MNA and five-year reviews.

Site ID: LHAAP-049
Site Name: FORMER ACID STORAGE AREA

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	200903	200906
RI/FS	201005	201008
LTM	201201	204109

RIP Date: N/A

RC Date: 201008

SITE DESCRIPTION

LHAAP-49 is the former aid storage area, which was used from 1942 to 1945 for storage and formulation of acids and acid mixtures in support of TNT production during WWII. The NFA ROD was finalized in August 2010. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-050
Site Name: FORMER WASTE DISPOSAL FACILITY

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Metals, Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA	199005	199008
SI	199506	199707
RI/FS	199801	201001
RD	200508	201102
RA(C)	200508	201310
RA(O)	200508	201709
LTM	201709	204109

RIP Date: 201310

RC Date: 201709

SITE DESCRIPTION

This site of about one acre received wastewater from the sumps at Plants 2 and 3 from 1955 to the early-1970s. Washout of ammonium perchlorate containers was also performed on this site.

VOCs and perchlorate were detected in the soil samples. VOCs, metals and perchlorate were detected in groundwater.

In 2002, the RI was completed and the FS was finalized in 2010. The ROD was finalized in 2010. The ROD includes soil removal, MNA and LUCs (groundwater use restriction) for the site. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required. The RD was finalized in September 2011. The VOCs and perchlorates in groundwater pose an unacceptable risk. In 2004 an additional data gap sampling was completed and in February 2008 an additional shallow well was installed downgradient of this site.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy selected for this site is MNA for groundwater, and excavation and disposal for soil. Tasks to be completed before September 2017 are accomplishment of RIP followed by RA(O)/LTM. The final remedy has been selected for this site. At this time, it is expected that the post-PBA RA(O) will involve MNA and LUC.

Site ID: LHAAP-051
Site Name: PHOTOGRAPHIC LABORATORY/BLDG #60B

STATUS

Parcel: NONE

Regulatory Driver: RCRA

RRSE:

Phases	Start	End
RFA	199005	199008
LTM	201201	204109

RIP Date: N/A

RC Date: 199008

SITE DESCRIPTION

Building 60B was the location for processing x-ray film. It will be handled under RCRA closure. An NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-055
Site Name: SEPTIC TANK (10)

STATUS

Parcel: NONE

Regulatory Driver: RCRA

RRSE:

Phases	Start	End
RFA	199005	199008
LTM	201201	204109

RIP Date: N/A

RC Date: 199008

SITE DESCRIPTION

This site is being handled under RCRA guidelines. An NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-056
Site Name: VEHICLE WASH RACK AND OIL/WATER SEP

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: NOT EVALUATED

Phases	Start	End
PA	199304	200801
RI/FS	201201	201212

RIP Date: N/A

RC Date: 201212

SITE DESCRIPTION

This site consisted of a concrete washrack sloped to drain, connected to an oil/water separator. The site had a permitted discharge to a drainage ditch. The site is located within the shop area. The sump on this site was investigated under LHAAP-035. DD to be drafted in 2012. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required.

CLEANUP/EXIT STRATEGY

This is a zero cost site. An NFA DD is funded for 2012.

Site ID: LHAAP-058
Site Name: MAINTENANCE COMPLEX

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: MEDIUM

Contaminants of Concern: Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
PA	199005	199008
SI	199502	199506
RI/FS	201006	201009
RD	201106	201109
RA(C)	201109	201310
RA(O)	201109	201709
LTM	201709	204109

RIP Date: 201310

RC Date: 201709

SITE DESCRIPTION

LHAAP-35A(58), also known as the shops area, was used to provide plant-operated laundry, automotive, woodworking, metalworking, painting, refrigeration, and electrical services. VOCs were detected in groundwater. The ROD was finalized in 2010 and includes in situ bioremediation for the eastern plume and MNA and LUCs (groundwater use restriction) for both the eastern and western groundwater plume for the site. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required. The RD was finalized in September 2011.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy selected for this site is in situ bioremediation and MNA for groundwater. Tasks to be completed before September 2017 are accomplishment of RIP followed by RA(O)/LTM, which will involve MNA and LUC.

Site ID: LHAAP-059
Site Name: BUILDING 725

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	200705	200708
RI/FS	200805	200808
LTM	201201	204109

RIP Date: N/A

RC Date: 200808

SITE DESCRIPTION

Building 725 at LHAAP-59 was constructed in 1984 to support maintenance activities at the plant as a pesticide storage building. It was determined through site investigations that no significant release had occurred at this site. The NFA DD was finalized in August 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-060
Site Name: FORMER STORAGE BUILDING #411 & #714

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: MEDIUM

Phases	Start	End
PA	199005	199008
SI	199506	199707
RI/FS	199801	200402
LTM	201201	204109

RIP Date: N/A

RC Date: 200402

SITE DESCRIPTION

This site consists of two buildings formerly used for storage of pesticides and herbicides. It is included in Group 4 for RD/RA efforts. An NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-064
Site Name: TRANSFORMER STORAGE

STATUS

Parcel: NONE

Regulatory Driver: TSCA

RRSE:

Phases	Start	End
RFA	199005	199008
CS	199502	199506
LTM	201201	204109

RIP Date: N/A

RC Date: 199506

SITE DESCRIPTION

This site was used for storage of non-PCB transformers. An NFA was required and an NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-065
Site Name: BUILDING 209

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: NOT EVALUATED

Phases	Start	End
PA	201103	201106
RI/FS	201201	201212

RIP Date: N/A

RC Date: 201212

SITE DESCRIPTION

Building 209 was used for chemical storage for items such as paint and solvents. This building has a concrete floor with floor drains connected to sumps. The site is located just off of 11th street near the fire station. DD to be drafted in 2012. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required.

CLEANUP/EXIT STRATEGY

This is a zero cost site. An NFA DD is funded for 2012.

Site ID: LHAAP-066
Site Name: TRANSFORMER AT BLDG 401

STATUS

Parcel: NONE

Regulatory Driver: TSCA

RRSE:

Phases	Start	End
RFA	199005	199008
CS	199502	199506
LTM	201201	204109

RIP Date: N/A

RC Date: 199506

SITE DESCRIPTION

A transformer at building 401 dripped oil for approximately one year. The transformer did not contain PCBs So an NFA was required. An NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non- residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-067
Site Name: ABOVE GROUND STORAGE TANK

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: MEDIUM

Contaminants of Concern: Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
PA	199005	199008
SI	199809	199906
RI/FS	200110	201006
RD	201105	201108
RA(C)	201201	201304
RA(O)	201201	201709
LTM	201709	204109

RIP Date: 201304

RC Date: 201709

SITE DESCRIPTION

This site consisted of seven aboveground storage tanks (AST) containing No. 2 fuel oil, kerosene or solvents. The ASTs had earthen dikes sufficient to contain a potential spill. Motor fuel tanks were registered with the state and have been removed. Central Creek runs to the south of this site.

In 2001, VOCs (TCE, 1,1-dichloroethene, 1,2-dichloroethane, 1,1,2-trichloroethane) were detected in the groundwater. The data indicates that the impact is limited.

In 2002, the RI was completed and in 2004 additional sampling was conducted, with the final FS completed in August 2005. The ROD was finalized in August 2010 and included MNA and LUCs (groundwater use restriction) for the site. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required. The RD was finalized in August 2011.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. Actions to be completed before the PBA ends are accomplishment of RIP followed by RA(O)/LTM. The ROD complete in 2010 selected the following remedies for this site: MNA for groundwater, and LTM. At this time, it is expected that the post-PBA long-term RA(O) and LTM will involve MNA and LUC.

Site ID: LHAAP-068
Site Name: MOBILE STORAGE TANK PARKING AREA

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	199005	199008
LTM	201201	204109

RIP Date: N/A

RC Date: 199008

SITE DESCRIPTION

This site was corrected under RCRA guidelines in 1993. An NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: PBC Longhorn
Site Name: PBC at Longhorn

STATUS

Parcel: Production Area II (467 acres),East FIA II(FWS) (175 acres),Pistol Range (FWS) (1 acres),Production Area Ib (FWS) (107.59 acres),Production Area Ia (FWS) (456.72 acres)

Regulatory Driver: CERCLA

RRSE: LOW

Contaminants of Concern: Explosives, Metals, Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
PA	200501	200503
RD	201203	201305
RA(C)	201203	201309
RA(O)	201309	201709

RIP Date: 201309

RC Date: 201709

SITE DESCRIPTION

The PBC was awarded in March 2012. The goal is to achieve RIP by September 2013 for the following sites and RA(O)/LTM upon achievement:
- LHAAP-03: Building 722 paint shop
- LHAAP-04: Pilot WWTP
- LHAAP-16: Old landfill (solid waste management unit (SWMU) 16)
- LHAAP-17: No. 2 flashing area/burning ground (SWMU 17)
- LHAAP-18: Burning ground/washout pond (SWMU 18)
- LHAAP-24: Former UEP (SWMU 24)
- LHAAP-29: Former TNT production area (SWMU 29)
- LHAAP-37: Chemical laboratory
- LHAAP-46: Plant 2/pyrotechnic operation
- LHAAP-47: Plant 3 Area, solid rocket fuel motor production
- LHAAP-50: Former waste disposal facility
- LHAAP-58: Maintenance complex
- LHAAP-67: AST farm

The PBC also covers LTM and LUC maintenance for:
- LHAAP-12: Active landfill
- LHAAP-001-R-01: South test area
- LHAAP-003-R-01: Ground signal test area

The PBC also covers a CERCLA 121 (c) review for all sites with RIP.

CLEANUP/EXIT STRATEGY

These sites are being addressed under a PBA through September 2017. Any follow-on actions will be funded under a separate contract mechanism.

IRP Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
LHAAP-005	POWER HOUSE BOILER POND	198705	RCRA Closure under NPDES Permit (1999). No further action planned. The property has been transferred to the USFWS.
LHAAP-009	BUILDING 31-W DRUM STORAGE	198705	RCRA Closure, Closed on 11/18/99; (Complete Environmental Services, October 1999, Final Closure Report, Hazardous Waste Storage Area 31-W RCRA Permit 50195 Unit No. 001). No further remedial action planned. Transferred to USFWS May 2004.
LHAAP-015	AREA 49W DRUM STORAGE	198705	RCRA closure. Closed on 10/14/99; (Complete Environmental Services, October 1999, Final Closure Report, Hazardous Waste Storage Area 49-W RCRA Permit 50195 Unit No. 002). No further remedial action planned. Transferred to USFWS May 2004.
LHAAP-019	CONSTRUCTION MATERIALS LANDFILL	198705	PA/SI - NFA; DD Required; Landfill Closure Report finalized in 2010. Post Closure Care Plan includes 5 years of post closure inspections and maintenance of the landfill cap.
LHAAP-027	SOUTH TEST AREA/BOMB TEST AREA(SWMU 27)	199801	
LHAAP-032	FORMER TNT WASTEWATER PLT(SWMU 32)	200809	ROD for NFA - signed September 2008
LHAAP-034	BUILDING 701 PCB STORAGE	198705	PA/SI - NFA; RCRA Closure; Closed on 7/14/00; No further remedial action planned. Transferred to the USFWS May 2004
LHAAP-039	25X WASHOUT PAD	199008	PP - September 1994; Combined with LHAAP-18/24 IRA - Capping Site 18 1986; IRA - Soil Removal and Capping 1986; LTM - Groundwater Monitoring System Installed 1989;
LHAAP-052	MAGAZINE AREA WASHOUT	199805	PA/SI NFA; USEPA NFI letter dated May 18, 1998 (Group 5). No further remedial action planned. The property has been transferred to the USFWS.
LHAAP-053	STATIC TEST AREA	200809	A no action decision document signed in 2008.
LHAAP-054	GRD SIGNAL TEST AREA (LHAAP-XX)	199801	
LHAAP-057	RUBBLE BURIAL SITE	199008	PA/SI NFA; No further remedial action planned. Transferred to the USFWS May 2004.
LHAAP-061	POTABLE WTP SEDIMENT POND	199008	No Further Investigation is required. No further action planned. The property has been transferred to the USFWS.

IRP Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
LHAAP-063	BURIAL PITS	199805	PA/SI NFA; No further remedial action planned. Letter of concurrence from USEPA dated May 18, 1998;(Group 5) Transferred to the USFWS May 2004
LHAAP-069	SERVICE STATION UST'S	199306	Corrected under RCRA Guidelines. No further remedial action planned.
LHAAP-070	LOADING DOCK-MAGAZINE AREA	199506	PA/SI NFA; USEPA concurrence letter for NFI dated Aug. 18, 2004; No further remedial action planned. Transferred to the USFWS May 2004.
LHAAP-071	OIL SPILL, BLDG 813	199506	PA/SI NFA; Remedial action taken; No further remedial action planned. USEPA concurrence letter for NFI dated Aug. 18, 2004. Transferred to the USFWS May 2004.

IRP Schedule

Date of IRP Inception: 197906

Past Phase Completion Milestones

1984	
PA	(LHAAP-001 - INERT BURNING GROUNDS (SWMU 1))
SI	(LHAAP-001 - INERT BURNING GROUNDS (SWMU 1))
1987	
CS	(LHAAP-019 - CONSTRUCTION MATERIALS LANDFILL, LHAAP-023 - BUILDING 707-STORAGE AREA PCBS, LHAAP-034 - BUILDING 701 PCB STORAGE, LHAAP-036 - EXPLOSIVE WASTE PADS (27))
PA	(LHAAP-002 - VACCUM TRUCK OVERNITE PARKING LOT, LHAAP-004 - LHAAP PILOT WASTEWATER TREATMENT PLANT, LHAAP-006 - BUILDING 54F SOLVENT, LHAAP-011 - SUS TNT BURIAL SITE AT AVE P&Q(SWMU 11), LHAAP-012 - ACTIVE LANDFILL (SWMU 12), LHAAP-013 - SUS TNT BET ACTIVE&OLD LANDFILL(SWMU 13), LHAAP-014 - AREA 54 BURIAL GRND (SWMU 14), LHAAP-016 - OLD LANDFILL (SWMU 16), LHAAP-017 - NO 2 FLASHING AREA BRN GROUND(SWMU 17), LHAAP-018 - BURNING GROUND/WASHOUT POND(SWMU 18), LHAAP-027 - SOUTH TEST AREA/BOMB TEST AREA(SWMU 27), LHAAP-029 - FORMER TNT PRODUCTION AREA(SWMU 29), LHAAP-032 - FORMER TNT WASTEWATER PLT(SWMU 32), LHAAP-035 - SUMPS (145) VARIOUS, LHAAP-047 - PLANT 3 AREA, LHAAP-071 - OIL SPILL, BLDG 813)
RFA	(LHAAP-003 - BUILDING 722-PAINT SHOP, LHAAP-005 - POWER HOUSE BOILER POND, LHAAP-007 - BUILDING 50G DRUM PROCESSING, LHAAP-008 - SEWAGE TREATMENT PLANT, LHAAP-009 - BUILDING 31-W DRUM STORAGE, LHAAP-015 - AREA 49W DRUM STORAGE, LHAAP-019 - CONSTRUCTION MATERIALS LANDFILL, LHAAP-023 - BUILDING 707-STORAGE AREA PCBS, LHAAP-034 - BUILDING 701 PCB STORAGE, LHAAP-036 - EXPLOSIVE WASTE PADS (27), LHAAP-070 - LOADING DOCK-MAGAZINE AREA)
SI	(LHAAP-011 - SUS TNT BURIAL SITE AT AVE P&Q(SWMU 11), LHAAP-012 - ACTIVE LANDFILL (SWMU 12), LHAAP-013 - SUS TNT BET ACTIVE&OLD LANDFILL(SWMU 13), LHAAP-014 - AREA 54 BURIAL GRND (SWMU 14), LHAAP-016 - OLD LANDFILL (SWMU 16), LHAAP-017 - NO 2 FLASHING AREA BRN GROUND(SWMU 17), LHAAP-018 - BURNING GROUND/WASHOUT POND(SWMU 18), LHAAP-027 - SOUTH TEST AREA/BOMB TEST AREA(SWMU 27), LHAAP-029 - FORMER TNT PRODUCTION AREA(SWMU 29), LHAAP-032 - FORMER TNT WASTEWATER PLT(SWMU 32), LHAAP-035 - SUMPS (145) VARIOUS)
1990	
ISC	(LHAAP-069 - SERVICE STATION UST'S)
PA	(LHAAP-024 - FORMER UNLINED EVAP POND (SWMU 24), LHAAP-037 - CHEMICAL LABORATORY WASTE PAD, LHAAP-045 - MAGAZINE AREA, LHAAP-050 - FORMER WASTE DISPOSAL FACILITY, LHAAP-052 - MAGAZINE AREA WASHOUT, LHAAP-054 - GRD SIGNAL TEST AREA (LHAAP-XX), LHAAP-058 - MAINTENANCE COMPLEX, LHAAP-060 - FORMER STORAGE BUILDING #411 & #714, LHAAP-061 - POTABLE WTP SEDIMENT POND, LHAAP-063 - BURIAL PITS, LHAAP-067 - ABOVE GROUND STORAGE TANK, LHAAP-068 - MOBILE STORAGE TANK PARKING AREA)
SI	(LHAAP-024 - FORMER UNLINED EVAP POND (SWMU 24), LHAAP-054 - GRD SIGNAL TEST AREA (LHAAP-XX))
RFA	(LHAAP-039 - 25X WASHOUT PAD, LHAAP-051 - PHOTOGRAPHIC LABORATORY/BLDG #60B, LHAAP-053 - STATIC TEST AREA, LHAAP-055 - SEPTIC TANK (10), LHAAP-057 - RUBBLE BURIAL SITE, LHAAP-064 - TRANSFORMER STORAGE, LHAAP-066 - TRANSFORMER AT BLDG 401)
1995	
SI	(LHAAP-058 - MAINTENANCE COMPLEX, LHAAP-071 - OIL SPILL, BLDG 813)
CS	(LHAAP-064 - TRANSFORMER STORAGE, LHAAP-066 - TRANSFORMER AT BLDG 401, LHAAP-070 - LOADING DOCK-MAGAZINE AREA)
1996	
RI/FS	(LHAAP-013 - SUS TNT BET ACTIVE&OLD LANDFILL(SWMU 13), LHAAP-014 - AREA 54 BURIAL GRND (SWMU 14))

IRP Schedule

1997	
SI	(LHAAP-050 - FORMER WASTE DISPOSAL FACILITY, LHAAP-060 - FORMER STORAGE BUILDING #411 & #714)
1998	
RI/FS	(LHAAP-001 - INERT BURNING GROUNDS (SWMU 1), LHAAP-011 - SUS TNT BURIAL SITE AT AVE P&Q(SWMU 11), LHAAP-027 - SOUTH TEST AREA/BOMB TEST AREA(SWMU 27), LHAAP-054 - GRD SIGNAL TEST AREA (LHAAP-XX))
SI	(LHAAP-052 - MAGAZINE AREA WASHOUT, LHAAP-063 - BURIAL PITS)
1999	
SI	(LHAAP-067 - ABOVE GROUND STORAGE TANK)
2002	
PA	(LHAAP-046 - PLANT 2 AREA)
2004	
SI	(LHAAP-045 - MAGAZINE AREA)
RI/FS	(LHAAP-060 - FORMER STORAGE BUILDING #411 & #714)
2005	
IRA	(LHAAP-012 - ACTIVE LANDFILL (SWMU 12), LHAAP-016 - OLD LANDFILL (SWMU 16))
PA	(PBC Longhorn - PBC at Longhorn)
2006	
RI/FS	(LHAAP-012 - ACTIVE LANDFILL (SWMU 12))
2007	
PA	(LHAAP-059 - BUILDING 725)
RD	(LHAAP-012 - ACTIVE LANDFILL (SWMU 12))
RI/FS	(LHAAP-032 - FORMER TNT WASTEWATER PLT(SWMU 32))
RA(C)	(LHAAP-012 - ACTIVE LANDFILL (SWMU 12))
2008	
RI/FS	(LHAAP-059 - BUILDING 725)
PA	(LHAAP-056 - VEHICLE WASH RACK AND OIL/WATER SEP)
LTM	(LHAAP-032 - FORMER TNT WASTEWATER PLT(SWMU 32), LHAAP-053 - STATIC TEST AREA)
2009	
RD	(LHAAP-035 - SUMPS (145) VARIOUS)
PA	(LHAAP-049 - FORMER ACID STORAGE AREA)
RI/FS	(LHAAP-035 - SUMPS (145) VARIOUS)
RA(C)	(LHAAP-035 - SUMPS (145) VARIOUS)
RA(O)	(LHAAP-035 - SUMPS (145) VARIOUS)
2010	
RI/FS	(LHAAP-037 - CHEMICAL LABORATORY WASTE PAD, LHAAP-046 - PLANT 2 AREA, LHAAP-049 - FORMER ACID STORAGE AREA, LHAAP-050 - FORMER WASTE DISPOSAL FACILITY, LHAAP-058 - MAINTENANCE COMPLEX, LHAAP-067 - ABOVE GROUND STORAGE TANK)
2011	

IRP Schedule

2011

PA	(LHAAP-065 - BUILDING 209)
IRA	(LHAAP-004 - LHAAP PILOT WASTEWATER TREATMENT PLANT, LHAAP-018 - BURNING GROUND/WASHOUT POND(SWMU 18), LHAAP-024 - FORMER UNLINED EVAP POND (SWMU 24))
RD	(LHAAP-037 - CHEMICAL LABORATORY WASTE PAD, LHAAP-046 - PLANT 2 AREA, LHAAP-050 - FORMER WASTE DISPOSAL FACILITY, LHAAP-058 - MAINTENANCE COMPLEX, LHAAP-067 - ABOVE GROUND STORAGE TANK)

Projected Phase Completion Milestones

See attached schedule

Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates

Site ID	Site Name	ROD/DD Title	ROD/DD Date
LHAAP-017	NO 2 FLASHING AREA BRN GROUND(SWMU 17)	Flashing Area/Burning Grnd No 2:LHAAP-17	20130928

Final RA(C) Completion Date: 201504

Schedule for Next Five-Year Review: 2013

Estimated Completion Date of IRP at Installation (including LTM phase): 204109

LONGHORN ARMY AMMUNITION PLANT IRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
LHAAP-001	INERT BURNING GROUNDS (SWMU 1)	LTM						
LHAAP-002	VACCUM TRUCK OVERNITE PARKING LOT	LTM						
LHAAP-003	BUILDING 722-PAINT SHOP	RFI/CMS						
		IRA						
		LTM						
LHAAP-004	LHAAP PILOT WASTEWATER TREATMENT PLANT	RI/FS						
		RD						
		RA(C)						
		RA(O)						
		LTM						
LHAAP-006	BUILDING 54F SOLVENT	LTM						
LHAAP-007	BUILDING 50G DRUM PROCESSING	LTM						
LHAAP-008	SEWAGE TREATMENT PLANT	LTM						
LHAAP-011	SUS TNT BURIAL SITE AT AVE P&Q(SWMU 11)	LTM						
LHAAP-012	ACTIVE LANDFILL (SWMU 12)	RA(O)						
		LTM						
LHAAP-013	SUS TNT BET ACTIVE&OLD LANDFILL(SWMU 13)	LTM						
LHAAP-014	AREA 54 BURIAL GRND (SWMU 14)	LTM						
LHAAP-016	OLD LANDFILL (SWMU 16)	RI/FS						
		RD						
		RA(C)						
		RA(O)						
		LTM						
LHAAP-017	NO 2 FLASHING AREA BRN GROUND(SWMU 17)	RI/FS						
		RD						
		RA(C)						
		RA(O)						
		LTM						

LONGHORN ARMY AMMUNITION PLANT IRP Schedule

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
LHAAP-018	BURNING GROUND/WASHOUT POND(SWMU 18)	RI/FS						
		RD						
		RA(C)						
		RA(O)						
SITE ID	**SITE NAME**	**PHASE**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18+**
LHAAP-023	BUILDING 707-STORAGE AREA PCBS	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18+**
LHAAP-024	FORMER UNLINED EVAP POND (SWMU 24)	RI/FS						
		RD						
		RA(C)						
		RA(O)						
SITE ID	**SITE NAME**	**PHASE**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18+**
LHAAP-029	FORMER TNT PRODUCTION AREA(SWMU 29)	RI/FS						
		RD						
		RA(C)						
		RA(O)						
		LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18+**
LHAAP-035	SUMPS (145) VARIOUS	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18+**
LHAAP-036	EXPLOSIVE WASTE PADS (27)	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18+**
LHAAP-037	CHEMICAL LABORATORY WASTE PAD	RA(C)						
		RA(O)						
		LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18+**
LHAAP-045	MAGAZINE AREA	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18+**
LHAAP-046	PLANT 2 AREA	RA(C)						
		RA(O)						
		LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18+**
LHAAP-047	PLANT 3 AREA	RI/FS						
		RD						
		RA(C)						
		RA(O)						
		LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18+**
LHAAP-049	FORMER ACID STORAGE AREA	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18+**
LHAAP-050	FORMER WASTE DISPOSAL FACILITY	RA(C)						
		RA(O)						
		LTM						

LONGHORN ARMY AMMUNITION PLANT IRP Schedule

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
LHAAP-051	PHOTOGRAPHIC LABORATORY/BLDG #60B	LTM						
LHAAP-055	SEPTIC TANK (10)	LTM						
LHAAP-056	VEHICLE WASH RACK AND OIL/WATER SEP	RI/FS						
LHAAP-058	MAINTENANCE COMPLEX	RA(C)						
		RA(O)						
		LTM						
LHAAP-059	BUILDING 725	LTM						
LHAAP-060	FORMER STORAGE BUILDING #411 & #714	LTM						
LHAAP-064	TRANSFORMER STORAGE	LTM						
LHAAP-065	BUILDING 209	RI/FS						
LHAAP-066	TRANSFORMER AT BLDG 401	LTM						
LHAAP-067	ABOVE GROUND STORAGE TANK	RA(C)						
		RA(O)						
		LTM						
LHAAP-068	MOBILE STORAGE TANK PARKING AREA	LTM						
PBC Longhorn	PBC at Longhorn	RD						
		RA(C)						
		RA(O)						

LONGHORN ARMY AMMUNITION PLANT

Non-BRAC Excess
Military Munitions Response Program

MMRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 4/1

Installation Site Types with Future and/or Underway Phases

1 Explosive Ordnance Disposal Area
(LHAAP-003-R-01)

1 Pistol Range
(LHAAP-004-R-01)

1 Unexploded Munitions/Ordnance
(LHAAP-001-R-01)

Most Widespread Contaminants of Concern

Explosives

Media of Concern

Groundwater, Soil

Completed Remedial Actions (Interim Remedial Actions / Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY	Cost
LHAAP-001-R-01	SOUTH TEST AREA / BOMB TEST AREA	IRA	UXO CLEARANCE	2009	TBD
LHAAP-001-R-01	SOUTH TEST AREA / BOMB TEST AREA	IRA	INSTITUTIONAL CONTROLS	2009	TBD
LHAAP-004-R-01	PISTOL RANGE	IRA	WASTE REMOVAL - SOILS	2010	TBD

Duration of MMRP

Year of MMRP Inception: 200202

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201309/201309

Date of MMRP completion including Long Term Management (LTM): 204109

MMRP Contamination Assessment

Contamination Assessment Overview

In May 2003 the Phase 3 Army range inventory was completed at LHAAP. The inventory identified three sites as eligible for the Military Munitions Response Program (MMRP). The Phase 3 inventory serves as the preliminary assessment (PA) under CERCLA. In June 2005 an SI was completed. An EE/CA was finalized on the three sites in October 2007. The EE/CA indicated that no Department of Defense (DoD) action was required for LHAAP-002-R-01. An interim removal action was funded for the two other sites and was completed in 2009. In March 2008 an explosives safety submission (ESS) was finalized for the three sites. The final munitions constituents summary report was completed in 2011 for LHAAP-001-R-01 and LHAAP-003-R-01. In 2012 the Pistol Range (LHAAP-004-R-01) was added to the MMRP. A soil removal action was completed at LHAAP-004-R-01 and an NFA ROD was signed in September 2010.

Cleanup Exit Strategy

Limited groundwater monitoring for perchlorate and five-year reviews are planned for LHAAP-001-R-01 & LHAAP-003-R-01. Five-year reviews are planned for LHAAP-004-R-01. The five-year reviews will ensure that the site is inspected, LUCs are still in place and that any new data regarding the condition of the site is reviewed.

MMRP Previous Studies

	Title	Author	Date
2001			
	U.S. Army Active/Inactive Range Inventory, Longhorn AAP	Army Materiel Command	AUG-2001
2002			
	CTT Range Inventory		JAN-2002
2003			
	Phase 3 Army Range Inventory at Longhorn Army Ammunition Plant	e2M	MAY-2003
2005			
	Final Site Inspection Report, Military Munitions Response Program Site Inspection, Munitions Response Sites	e2M	JUN-2005
2006			
	Final Work Plan Engineering Evaluation/Cost Analysis at the Longhorn Army Ammunition Plant	CAPE	MAR-2006
	Draft Operational Range Inventory Sustainment (ORIS) for Longhorn AAP	US Army	NOV-2006
2007			
	Final Engineering Evaluation/Cost Analysis at the Longhorn Army Ammunition Plant	CAPE	OCT-2007
2008			
	Final Explosives Safety Submission - Munitions and Explosives of Concern Removal Action	USACE, Huntsville	FEB-2008
	Final Work Plan for MEC Removal Action at Former LHAAP LHAAP-001-R(Site 27) and LHAAP-003-R(Site 54)	EOD Technology, Inc.	JUL-2008
2009			
	Final EE/CA Former Pistol Range	Shaw Environmental, Inc.	FEB-2009
	Final Site-specific Final Report for MEC Removal Action, LHAAP-001-R(Site 27) and LHAAP-003-R(Site 54)	EOD Technology, Inc.	SEP-2009
2010			
	Final Completion Report Non-Time Critical Removal Action at the Former Pistol Range	Shaw Environmental, Inc.	JAN-2010
	Final Proposed Plan for the Former Pistol Range	Shaw Environmental, Inc.	JAN-2010
	Final ROD, Former Pistol Range	Shaw Environmental, Inc.	SEP-2010

LONGHORN ARMY AMMUNITION PLANT

Non-BRAC Excess

Military Munitions Response Program
Site Descriptions

Site ID: LHAAP-001-R-01
Site Name: SOUTH TEST AREA / BOMB TEST AREA

STATUS

Parcel: South Test/Bomb (FWS) (72 acres)

Regulatory Driver: CERCLA
MRSPP Score: 04

Contaminants of Concern: Explosives

Media of Concern: Groundwater, Soil

Phases	Start	End
PA	200202	200305
SI	200402	200506
RI/FS	200503	201309
IRA	200710	200904
LTM	201309	204109

RIP Date: N/A

RC Date: 201309

SITE DESCRIPTION

This site of approximately 79 acres is also known as environmental site LHAAP-027 and is located southeast of Avenue P and the magazine area, at the end of 70th street, near the southern boundary of LHAAP. The site was constructed in 1954 and used by Universal Match Corporation to test photoflash bombs that were produced at the facility until about 1956. The bombs were tested by exploding them in the air over an elevated, semi-elliptical earthen test pad. Bombs awaiting testing were apparently stored in three earth-covered concrete bunkers. The bombs tested were 150-pound M120/M120A photoflash bombs, filled with photoflash powder and containing a black powder booster charge for bursting the bomb with a timed nose fuse.

The location of the site, for this purpose, was not ideally suited to the task, as fragments from this testing landed beyond the installation boundary. By June 1954, static testing of photoflash bombs had been discontinued because of the possibility of damage and injuries beyond the installation boundary. During the late-1950s, illuminating signal devices were also demilitarized within pits at this site. During the early-1960s, leaking production items were demilitarized in the area. The May 1997 final RI report for Group I sites indicates approximately 52,000 one-half and one-pound photoflash cartridges were demilitarized at the site in the early-1980s.

In 1982, investigations included installation and sampling of two wells and three shallow soil samples. Explosives, metals, chloride and sulfate were detected above background levels in the soil samples. In January 1998, an NFA ROD was signed by the USEPA, based upon the site-specific risk analysis for human and ecological exposure to the contaminants of potential concern for the site.

In 2004, the explosive ordnance disposal (EOD) division at Fort Polk blew in place (BIP) one 155 mm white phosphorous (WP) round. The identification of this round as a live 155 mm WP round is suspect. Plexus, in the 2005 environmental baseline survey (EBS) (page 46), states that "confirmatory sampling (CS) WP operations at LHAAP were assembly and packout operations only; no loading of these materials was conducted at the site. The WP rounds were stored and worked in the east line area of Plant 2 [US Army Toxic and Hazardous Materials Agency (USATHAMA), 1980]." Testing of the payload at LHAAP would not be part of the mission, since it was not manufactured at Longhorn. Others indicate that it was a 105 or 81 mm smoke round.

A reported demolition site was identified on the northwest perimeter of this site. This was added to the investigation. In FY2008 an EE/CA report was completed, approved and signed. In October 2007 the report was finalized. An IRA has been funded with the final ESS completed in March 2008. The removal action was completed in 2009. The ROD will be signed in 2012 and will include limited groundwater monitoring for perchlorate and LUCs of restrictions against digging and residential use and sign maintenance. Five-year reviews are required.

CLEANUP/EXIT STRATEGY

Site ID: LHAAP-001-R-01
Site Name: SOUTH TEST AREA / BOMB TEST AREA

[redacted]

Five-year reviews are planned for this site. These five-year reviews will ensure that the site is inspected and that any new data regarding the condition of the site is reviewed. The LUCs are in place and will be formally enforced upon ROD signature.

Site ID: LHAAP-003-R-01
Site Name: GROUND SIGNAL TEST AREA

STATUS

Parcel: Ground Signal Test (FWS) (80 acres)

Regulatory Driver: CERCLA
MRSPP Score: 04

Contaminants of Concern: Explosives

Media of Concern: Groundwater, Soil

Phases	Start	End
PA	200202	200305
SI	200402	200506
RI/FS	200503	201309
IRA	200710	200904
LTM	201309	204109

RIP Date: N/A

RC Date: 201309

SITE DESCRIPTION

This site, also known as environmental site LHAAP-054, encompasses approximately 80 acres and is located in the southeastern portion of LHAAP. Starting in April 1963 the site was used intermittently for aerial and on-ground testing and destruction of a variety of devices, including red phosphorus smoke wedges, infrared flares, illuminating 60 and 81 mm mortar shells, illuminating 40 to 155 mm cartridges, button bombs, and various types of explosive simulators. The site was also used intermittently over a 20-year period for testing and burnout of rocket motors from Nike-Hercules, Pershing, and Sergeant missiles. Around 1970, one of the Sergeant rocket motors exploded in an excavated pit near the center of the site. Debris was reportedly placed in the resulting crater and backfilled. From late-1988 through 1991, the site was also used for burnout of rocket motors in Pershing missiles destroyed in accordance with the INF Treaty between the US and the former Soviet Union. In January 1998 an NFA ROD for hazardous, toxic and radioactive waste (HTRW) under CERCLA was signed. The site is currently undeveloped.

In December 2004, the EOD unit at Fort Polk BIP 105 mm and 81 mm rounds. In FY2008 an EE/CA report was completed, approved and signed. In October 2007 the report was finalized. An IRA has been funded with the final ESS completed in March 2008. The removal action was completed in 2009. The ROD will be signed in 2012 and will include limited groundwater monitoring for perchlorate LUCs of restrictions against digging and residential use and sign maintenance. Five-year reviews are required.

CLEANUP/EXIT STRATEGY

Five-year reviews are planned for this site. These five-year reviews will ensure that the site is inspected and that any new data regarding the condition of the site is reviewed. The LUCs are in place and will be formally enforced upon ROD signature.

Site ID: LHAAP-004-R-01
Site Name: PISTOL RANGE

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
MRSPP Score: No longer required

Phases	Start	End
PA	200809	200902
RI/FS	201005	201008
IRA	200912	201001
LTM	201201	204109

RIP Date: N/A

RC Date: 201008

SITE DESCRIPTION

The former pistol range was known to have been used by LHAAP security personnel for small arms target qualification and recertification. The pistol range was established in the 1950s and used intermittently through 2004. Site investigation results identified areas where the surface and near surface soil was contaminated with lead at concentrations that exceeded the TCEQ soil MSCC for industrial use. A non-time critical removal was completed. An NFA ROD was finalized in August 2010. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

MMRP Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
LHAAP-002-R-01	STATIC TEST AREA	200811	A no action decision document signed in 2008.

MMRP Schedule

Date of MMRP Inception 200202

Past Phase Completion Milestones

2003	
PA	(LHAAP-001-R-01 - SOUTH TEST AREA / BOMB TEST AREA, LHAAP-002-R-01 - STATIC TEST AREA, LHAAP-003-R-01 - GROUND SIGNAL TEST AREA)
2005	
SI	(LHAAP-001-R-01 - SOUTH TEST AREA / BOMB TEST AREA, LHAAP-002-R-01 - STATIC TEST AREA, LHAAP-003-R-01 - GROUND SIGNAL TEST AREA)
2008	
RI/FS	(LHAAP-002-R-01 - STATIC TEST AREA)
2009	
IRA	(LHAAP-001-R-01 - SOUTH TEST AREA / BOMB TEST AREA, LHAAP-003-R-01 - GROUND SIGNAL TEST AREA)
PA	(LHAAP-004-R-01 - PISTOL RANGE)
2010	
RI/FS	(LHAAP-004-R-01 - PISTOL RANGE)
IRA	(LHAAP-004-R-01 - PISTOL RANGE)

Projected Phase Completion Milestones

See attached schedule

Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates

To Be Determined

Final RA(C) Completion Date:

Schedule for Next Five-Year Review: 2013

Estimated Completion Date of MMRP at Installation (including LTM phase): 204109

LONGHORN ARMY AMMUNITION PLANT MMRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
LHAAP-001-R-0	SOUTH TEST AREA / BOMB TEST AREA	RI/FS						
		LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18+**
LHAAP-003-R-0	GROUND SIGNAL TEST AREA	RI/FS						
		LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18+**
LHAAP-004-R-0	PISTOL RANGE	LTM						

Community Involvement

Technical Review Committee (TRC): 199203

Community Involvement Plan (Date Published): 200309

Restoration Advisory Board (RAB): RAB established 2004

RAB Adjournment Date:

RAB Adjournment Reason:

Additional Community Involvement Information

While the Army leads the Installation Restoration Program (IRP) at LHAAP, a close working relationship with the regulatory community has been developed. The local public community has been involved in the past through the TRC process.

In April 1996 and in 1998 formation of a RAB was attempted; however, community involvement in the TRC process was determined to be sufficient for community needs. In September 2004, in response to public notices and private mailings, a group of citizens attended a RAB-interest meeting. Enthusiastic support resulted in the first RAB meeting in December 2004. It was well attended. The RAB has created its own symbol, finalized its charter, and elected a co-chair. The RAB meets quarterly and public meetings are held for each PP. These will continue as needed.

An update to the Community Involvement Plan has been drafted in 2011 and will be finalized in 2012.

Administrative Record is located at

Longhorn Army Trailer
Groundwater Treatment Plant Compound
Highway 134 and Spur 449
Karnack, TX 75661

Information Repository is located at

Marshall Texas Library
300 South Alamo
Marshall, TX 756

Current Technical Assistance for Public Participation (TAPP): 199909

TAPP Title: Grnd/surf water migration

Current Technical Assistance for Public Participation (TAPP): 200103

TAPP Title: TAPP2

Potential TAPP: N/A

DEPARTMENT OF THE ARMY
LONGHORN ARMY AMMUNITION PLANT
POST OFFICE BOX 220
RATCLIFF, AR 72951

November 19, 2013

DAIM-ODB-LO

Ms. April Palmie
Texas Commission on Environmental Quality Superfund Section – MC-136
Remediation Division
12100 Park 35 Circle, Bldg D
Austin, TX 78753

Re: Community Involvement Plan for Longhorn Army Ammunition Plant, Karnack, Texas

Dear Ms. Palmie,

Enclosed for your file is the above-referenced document dated November 2013. Also enclosed is the response table addressing comments from George Rice on behalf of the Technical Assistance Grant recipient, Caddo Lake Institute.

The point of contact for this action is the undersigned. I may be contacted at 479-635-0110, or by email at rose.zeiler@us.army.mil.

Rose M. Zeiler, Ph.D.
Longhorn AAP Site Manager

Copies furnished:
Rich Mayer, EPA Region 6
Paul Bruckwicki, USFWS
R. Smith, USACE, Tulsa District, OK
A. Williams, USACE, Tulsa District, OK
Dave Wacker, AECOM (for project files)

DEPARTMENT OF THE ARMY
LONGHORN ARMY AMMUNITION PLANT
POST OFFICE BOX 220
RATCLIFF, AR 72951

November 19, 2013

DAIM-ODB-LO

Mr. Rich Mayer
US Environmental Protection Agency
Superfund Division (6SF-AT)
1445 Ross Avenue
Dallas, TX 75202-2733

Re: Community Involvement Plan for Longhorn Army Ammunition Plant, Karnack, Texas

Dear Mr. Mayer,

Enclosed for your file is the above-referenced document dated November 2013. Also enclosed is the response table addressing comments from George Rice on behalf of the Technical Assistance Grant recipient, Caddo Lake Institute.

The point of contact for this action is the undersigned. I may be contacted at 479-635-0110, or by email at rose.zeiler@us.army.mil.

Rose M. Zeiler, Ph.D.
Longhorn AAP Site Manager

Copies furnished:
April Palmie, TCEQ
Paul Bruckwicki, USFWS
R. Smith, USACE, Tulsa District, OK
A. Williams, USACE, Tulsa District, OK
Dave Wacker, AECOM (for project files)

Responses to Comments on
Community Involvement Plan
Longhorn Army Ammunition Plant, Karnack, Texas

23-July 2013

Reviewer: George Rice, TAG
Respondent: Army

1. Respondent Concurs (C), Does Not Concur (D), Takes Exception (E), or Delete (X).
2. Commentor Agrees (A) with response, or Does not Agree (D) with response.

Comment #	Page	Section/ Paragraph	Comment	C, D, E or X[1]	Response	A or D[2]
George Rice						
1			In addition to making documents available at the Marshall public library and the LHAAP groundwater treatment plant, the Army should make all public documents available on a searchable website.	C	Though not required, the Army has been working toward providing a publicly accessible website without password protection. Longhorn is in the process of selecting the proper contract vehicle. In the meantime, the Army has provided each RAB member with an electronic copy of the Administrative Record, which is searchable, to access all public documents. Additionally, the Army has created a website portal for the RAB which will make available all pertinent documents for sites that are in a public review/comment phase of CERCLA. It is also noted that the Administrative Record is available in electronic format at the Marshall Public Library for any members of the public interested in viewing any of the documents.	
2			The Army has established a number of objectives for the Community Involvement Plan (CIP).[1] However, the Army has not established a way to measure the effectiveness of the CIP. The Army should develop a set of criteria that will be used to determine whether the CIP has met its objectives.	C	As is specified in the Objectives section of the CIP, the objectives will be addressed by implementing the community involvement actions described in the Community Involvement Activities section. The criteria, therefore, is the implementation of the Community Involvement Activities. However, to employ a more direct measurement of effectiveness, the Army will request feedback biennially through written surveys distributed at public meetings to determine the effectiveness of the community involvement activities.	
3			Remedial Design (RD) documents are produced after the Army selects a cleanup plan and documents its selection in a Record of Decision. The RD documents establish cleanup performance objectives[2] and contain the technical details that describe how the cleanup will be performed. However,	E/D	The Army holds regular RAB meetings to which the public is invited. These meetings are announced to the public by email and notices published in the Marshall News Messenger. If the public desires additional information regarding any cleanup-related documents,	

Responses to Comments on
Community Involvement Plan
Longhorn Army Ammunition Plant, Karnack, Texas

23-July 2013

Reviewer: George Rice, TAG
Respondent: Army

1. Respondent Concurs (C), Does Not Concur (D), Takes Exception (E), or Delete (X).
2. Commentor Agrees (A) with response, or Does not Agree (D) with response.

Comment #	Page	Section/ Paragraph	Comment	C, D, E or X[1]	Response	A or D[2]
			the public is not permitted to submit formal comments on the RD documents. Given the importance of the documents, the Army should give the public the opportunity to review them and submit formal comments.		they are able to ask questions at the RAB meetings. The Army will continue to provide documents at RAB meetings and respond to any questions or concerns they may have regarding any part of the cleanup process. These questions and responses are recorded in the meeting minutes and become part of the administrative record.	
4			The document states "*Karnack has 2,276 residents with an average population density of 20 persons per square mile.*"[3] This may be incorrect. The Army should check these figures.	C	The Army acknowledges that the Census numbers for Karnack will change. At the time of updating the CIP the most recent Census data available for Karnack was from 2010 and reported by the U.S. Census Bureau as 2,276 residents. The U.S. Census Bureau is now reporting a population of 2,807. The CIP will be revised to report a population of 2,807. It is unclear where the average population density number came from and this information will be deleted from the CIP. The Census numbers will also be reviewed and revised if applicable during the next update.	
5			Figure 2-1 in the electronic version of the document appears to be corrupted.	C	Figure 2-1 will be corrected in the Final Version.	

COMMUNITY INVOLVEMENT PLAN FOR LONGHORN ARMY AMMUNITION PLANT, TX

FINAL

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List of Acronyms and Abbreviations

AAP	Army Ammunition Plant
AOC	Area of Concern
AR	Administrative Record
ARAR	Applicable or Relevant and Appropriate Requirement
AST	Aboveground Storage Tank
BRAC	Base Realignment and Closure Program
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CIP	Community Involvement Plan
CMI(C)	Corrective Measures Implementation (Construction)
CMI(O)	Corrective Measures Implementation (Operation)
CMS	Corrective Measures Study
COD	Chemical Oxygen Demand
CY	Cubic Yard
DD	Decision Document
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
EE/CA	Engineering Evaluation/Cost Analysis
ERA	Ecological Risk Assessment
ER,A	Environmental Restoration, Army
ESS	Explosives Safety Submission
FFA	Federal Facility Agreement
FM	Farm-to-market road
FS	Feasibility Study
FY	Fiscal Year
GWTP	Groundwater Treatment Plant
HHRA	Human Health Risk Assessment
HTRW	Hazardous, Toxic and Radioactive Waste

IRP	Installation Restoration Program
JB	Jet Bomb
LHAAP	Abbreviation used in Longhorn Army Ammunition Plant site names
LTM	Long-Term Management
LUC	Land Use Control
mm	millimeter
MMRP	Military Munitions Response Program
MOA	Memorandum of Agreement
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
MNA	Monitored Natural Attenuation
NCP	National Oil and Hazardous Substance Pollution Contingency Plan
NFA	No Further Action
NPL	National Priorities List
PA	Preliminary Assessment
PCB	Polychlorinated Biphenyl
POL	Petroleum, Oil and Lubricants
PP	Proposed Plan
RA	Remedial Action
RAB	Restoration Advisory Board
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operation)
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RIP	Remedy-in-Place
SAP	Sampling and Analysis Plan

SI	Site Inspection
SWMU	Solid Waste Management Unit
TAG	Technical Assistance Grant
TAPP	Technical Assistance for Public Participation
TASC	Technical Assistance Services for Communities
TCE	Trichloroethylene
TCEQ	Texas Commission on Environmental Quality
TNT	Trinitrotoluene
TWC	Texas Water Commission
UEP	Unlined Evaporation Pond
USAEC	U.S. Army Environmental Command USAEHA
	U.S. Army Environmental Hygiene Agency
USATHAMA	U.S. Army Toxic and Hazardous Material Agency
USC	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UST	Underground Storage Tank
VOC	Volatile Organic Compound

RCRA – CERCLA Terminology Equivalence

CERCLA	RCRA
Preliminary Assessment (PA)	= RCRA Facility Assessment (RFA)
Site Inspection (SI)	= Confirmation Sampling (CS)
Remedial Investigation/Feasibility Study (RI/FS)	= RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)
Proposed Plan (PP)/ Record of Decision (ROD)	= Statement of Basis
Remedial Design (RD)	= Design (DES)
Remedial Action (Construction) (RA(C))	= Corrective Measures Implementation (Construction)(CMI(C))
Remedial Action (Operation)(RA(O))	= Corrective Measures Implementation (Operation)(CMI(O))
Long-term management (LTM)	= Long-term management (LTM)
Interim Remedial Action (IRA)	= Interim Measure (IM)

CERCLA	RCRA Underground Storage Tank (UST) Terms
Preliminary Assessment (PA)	= Initial Site Characterization (ISC)
Remedial Investigation (RI)	= Investigation (INV)
Feasibility Study (FS)	= Corrective Action Plan (CAP)
Remedial Design (RD)	= Design (DES)
Remedial Action (Construction)(RA(C))	= Implementation (Construction)(IMP(C))
Remedial Action (Operation)(RA(O))	= Implementation (Operations)(IMP(O))
Long-term management (LTM)	= Long-term management (LTM)
Interim Remedial Action (IRA)	= Interim Remedial Action (IRA)

1.0 OVERVIEW OF COMMUNITY INVOLVEMENT PLAN

This Community Involvement Plan (CIP) has been prepared for the Defense Environmental Restoration Program (DERP) at the Longhorn Army Ammunition Plant (LHAAP) in Karnack, Texas. The CIP provides guidance for public involvement associated with the Installation Restoration Program (IRP) and the Military Munitions Response Program (MMRP) cleanup sites at Longhorn AAP. The remaining environmental sites within these programs are currently concluding investigations and remedial action activities.

The Longhorn AAP CIP has been prepared in accordance with current U.S. Environmental Protection Agency (USEPA) guidance, including the *Superfund Community Involvement Handbook* (USEPA, 2005 and modifications therein) and the *Resource Conservation and Recovery Act (RCRA) Public Participation Manual* (USEPA, 1996). These handbooks outline the community involvement requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, the 1976 RCRA, as amended by the Hazardous and Solid Waste Act of 1984, and as stipulated in the guidance that interprets the Superfund legislation: the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (USEPA, 1992). CERCLA enables EPA to respond to hazardous waste sites that threaten public health and the environment.

1.1 Purpose

Applicable and effective communication and the timely exchange of information are essential for maintaining community understanding and support for Longhorn AAP and to assure the success of community involvement. The purposes of the community involvement process are to:

- Establish effective and comprehensive methods for informing the community of installation cleanup program actions;
- Solicit input and identify concerns that the local community may have regarding current and future cleanup program activities; and
- Maintain a strategy that supports pro-active, two-way communication between the Army and the local community.

The goals of the CIP will be achieved through various means, including published documents, public meetings, and community interviews. These activities will be based on the community's needs, as informed by information gathered from local groups and individuals.

The CIP identifies outreach activities that encourage two-way communication between the Army installation and the local community. This communication includes providing

opportunities for the community to learn about and comment on the cleanup process. The CIP establishes lines of communication for public information transmittal, a critical component of informed decision-making. The target audiences are local citizens and neighbors; former employees of Longhorn AAP; federal, state, and local officials and agencies; and local businesses and civic interest groups.

In accordance with Department of Defense (DoD) guidance (DoD Manual 4715.20, March 2012) and U.S. Army environmental policy (AR 200-1, 2007), this installation-specific CIP is an integral requirement of the IRP and is implemented by Army personnel. The plan serves as a guide and toolbox for IRP-related personnel and contractors, as well as for installation officials and personnel, in their efforts to inform and involve the local community. This plan is available to the public as part of the Administrative Record (AR) and Information Repository (see Appendix A for repository locations and contact information). Previously, a community relations plan (equivalent to CIP) was issued for LHAAP in 2003 and updated in 2007 to meet the CI requirements of the DERP.

1.2 Organization of Plan

The remainder of this plan is organized to provide LHAAP, other Army personnel, and the public with the major tools needed to successfully implement this critical component of the Longhorn AAP environmental cleanup program.

Section 2, Installation Background, provides background and historical information about Longhorn AAP, about the Army's cleanup processes in general, and the history and current status of Longhorn AAP's environmental cleanup sites.

Section 3, Community Background, includes a brief socioeconomic profile of the affected community, a history of public involvement in the environmental cleanup program at Longhorn AAP, and a description of the methodology that was used to collect community input to develop this CIP. It also summarizes the communication preferences and concerns that the interviewees voiced during the personal interviews conducted Sept. 17-21, 2012.

Section 4, Community Involvement Activities, identifies methods and opportunities for involving the local community in the IRP.

Several appendices also are provided as a source of additional useful background and reference information.

2.0 INSTALLATION BACKGROUND

2.1 Installation Location and Description

The former Longhorn AAP encompassed an area of about 8,416 acres on gently rolling pine-forested lands in the northeast corner of Harrison County, Texas, which is adjacent to the cities of Karnack and Uncertain, Texas. The western shore of Caddo Lake serves as the eastern boundary of the plant, while Texas farm-to-market road (FM) 134 is at the western edge of the plant. Wetland areas can be found along the shores of Caddo Lake and streams within the boundaries of the plant. The city of Marshall is located 14 miles southwest of the plant and Shreveport, Louisiana, is approximately 35 miles east of the plant.

The plant was established in October 1942 with the primary mission of producing 2,4,6-trinitrotoluene (TNT). Support facilities, housing, and wooded areas composed most of the structures on the plant. Facilities were later used to produce other types of munitions. In July 1997, the plant became inactive when the U.S. Army Armament, Munitions, and Chemical Command identified Longhorn AAP as being “excess” to Army needs and all production and related activities ceased. Since 2004, approximately 7,000 acres of the former installation have been transferred to the U.S. Fish and Wildlife Service (USFWS) and established as the Caddo Lake Wildlife Refuge. Figure 2-1 shows the location of Longhorn AAP.

The following subsections present an overview of the installation, a summary of the Army cleanup process in general, and a chronology of site activities during operations at Longhorn AAP. Individual site histories and characteristics are described in Section 2.3.3.

2.2 History of Installation Operations

The lands within Longhorn AAP were used primarily for agricultural purposes prior to the construction of the plant for the manufacture of TNT. Monsanto Chemical Company was the first contracting operator of the Longhorn AAP. From 1952-1956, Universal Match Corporation was the contracting operator, producing pyrotechnic ammunition such as photoflash bombs, simulators, hand signals, and tracers for 40 millimeter (mm) ammunition. Thiokol assumed this responsibility, along with rocket motor production, in 1956. Production of rocket motors was the primary mission of Longhorn AAP until 1965, when the production of pyrotechnic and illuminating ammunition was re-established. Other site operations included loading and packing pyrotechnic and signal ammunitions, and manufacturing solid propellant rocket motors. In accordance with a 1991 treaty with the former Soviet Union, the plant was a site for the static firing of Pershing I and II rocket motors as part of their demilitarization in 1991.

In July 1997, the plant became inactive when the U.S. Department of the Army identified the Longhorn

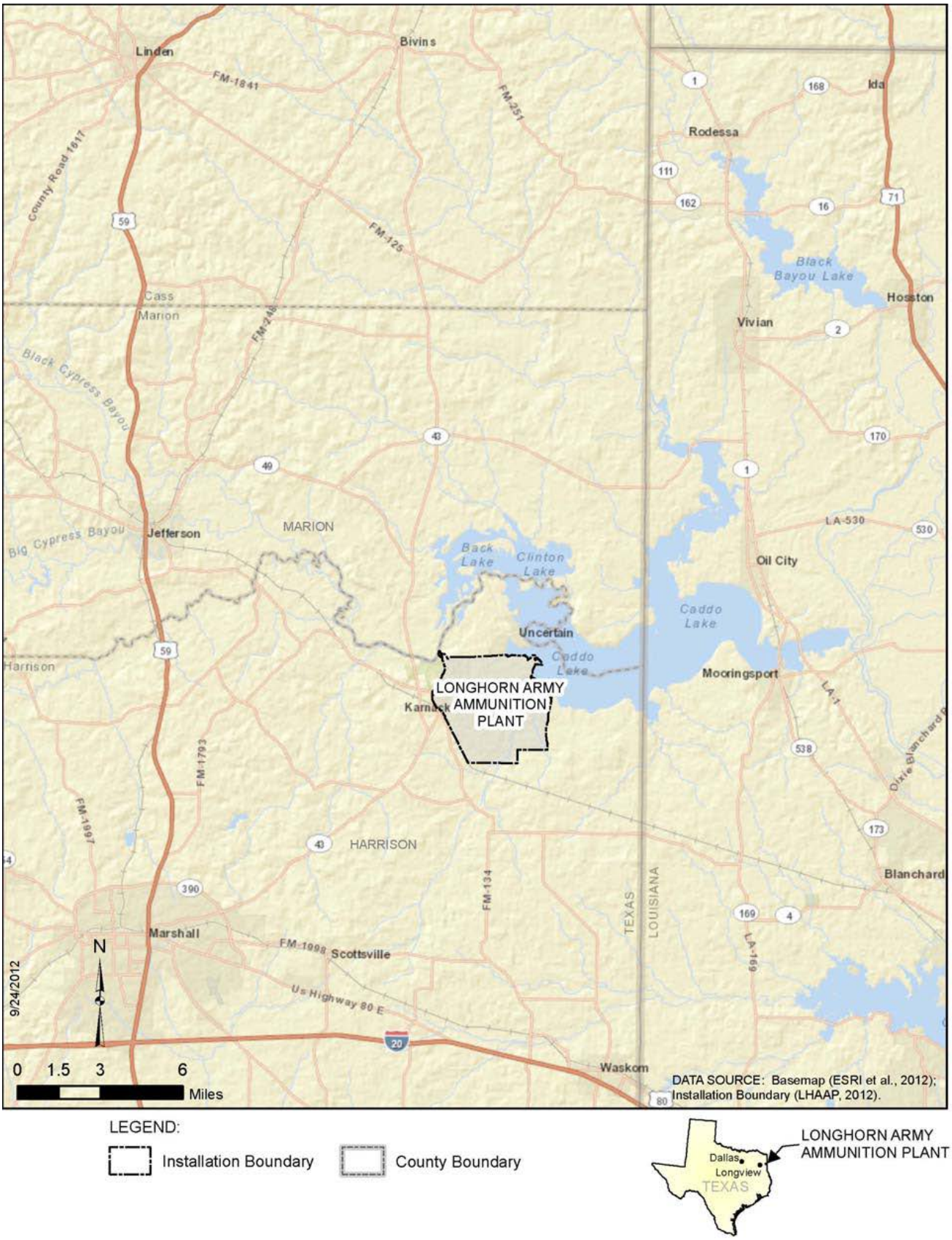

Figure 2-1. Installation Location Map

AAP as being "excess" to Army needs, and all production and related activities ceased. In July 1998, the Army contracted with Earth Tech, Inc. to liquidate property. That contract was completed in fiscal year (FY) 2000. In 1999, the Army contracted with Project Development Corporation to demolish specified structurally unsafe buildings. The Base Realignment and Closure (BRAC) Division received administrative control of Longhorn AAP in October 2003. The U.S. Army Environmental Command (USAEC) is responsible for funding the IRP and MMRP at Longhorn AAP. The BRAC Division implements all programs at Longhorn AAP, including environmental restoration, transfer and property. In 2003 the demolition of all remaining buildings began. A Memorandum of Agreement (MOA) between the U.S. Department of the Army and the USFWS was signed on October 21, 2000, designating an area for establishment of a wildlife refuge at Longhorn AAP. In 2004, the Caddo Lake National Wildlife Refuge was established with the transfer of approximately 5,000 acres of the installation to the USFWS. Subsequent transfers bring the total transferred acreage to approximately 7,000 acres to date. The USFWS manages these acres as the Caddo Lake National Wildlife Refuge within the perimeter fence of the former installation. The remaining acreage is also expected to transfer to the USFWS as restoration activities are completed.

Contamination identified at several sites is consistent. As indicated in the specific site descriptions in Section 2.3.3, contamination resulted in site types such as production areas, static test areas, storage areas, disposal pits, firing ranges, landfills, burning grounds, aboveground and underground storage tanks, explosive waste pads, and magazine areas. Each of these site types has required investigation and remediation under the Environmental Restoration, Army (ER,A) program.

2.3 Cleanup Program at Longhorn AAP

The following subsections provide a general overview of the Army's cleanup program and its regulatory drivers (Section 2.3.1), the chronology of cleanup program implementation at Longhorn AAP (Section 2.3.2), and specific information about the status of individual cleanup sites (Section 2.3.3).

2.3.1 Overview of the Army Cleanup Program

The DERP was formally established by Congress in 1986 and provides for the cleanup of DoD sites under the jurisdiction of the Secretary of Defense. The key objective of the cleanup program is to reduce, or eliminate when possible, threats to human health and the environment that result from past use or disposal practices. There are three categories included in the DoD environmental restoration program: the IRP category, the MMRP category, and the Building Demolition/Debris Removal program category. These three program categories address the types of releases that are covered under the DERP.

The IRP is a comprehensive program to identify, investigate and clean up hazardous substances, pollutants, and contaminants at Army installations. DERP guidance requires that sites in the IRP category be prioritized for cleanup based primarily on relative risk. Relative risk evaluation is a means of grouping sites or areas of concern (AOC) into high, medium, and low priority categories. Categorization is based on evaluation of site information using three factors: the contaminant hazard factor (that is, the types of contaminants present and how hazardous they are); the migration pathway factor (whether the contaminants are moving, and in what direction); and the receptor factor (presence or absence of humans or plants/animals with the potential to be exposed to the contaminants). For further information on how relative risk is evaluated for IRP sites, refer to the DoD *Relative Risk Site Evaluation Primer* (1997). The web site is https://www.denix.osd.mil/derp/upload/rerisk_sec_1.pdf.

The MMRP addresses non-operational range lands that are suspected or known to contain unexploded ordnance, discarded military munitions or munitions constituent contamination. In the MMRP category, relative cleanup priorities are assigned using the DoD Munitions Response Site Prioritization Protocol (MRSPP) (32 CFR Part 179). Data are gathered during the comprehensive site evaluation phase to identify munitions contaminant types, sources, transport processes, receptors, and exposure pathways. These data are evaluated to determine if a munitions response (MR) area requires further investigation, and to assign a priority for subsequent action.

Building demolition/debris removal refers to the demolition and removal of unsafe buildings and structures at facilities or sites that are or were owned by, leased to, or otherwise possessed by the United States and under the jurisdiction of the DoD. Longhorn AAP does not have any sites that fall within this category.

Each Army installation must implement a cleanup strategy that protects human health and the environment and reduces relative risk. The Army understands that the transparency in its cleanup process builds public confidence and encourages public participation. This communication will also involve elected officials and community groups who are currently participating in various informational meetings.

To increase the frequency and intensity of public participation, the Army funds and supports the creation of a Restoration Advisory Board (RAB). Public education can also be enhanced by the use of an independent technical advisor through the U.S. Army’s Technical Assistance for Public Participation (TAPP) program or USEPA's Technical Assistant Grant (TAG) program.

2.3.1.1 Phases of the Cleanup Process

At Army facilities, the investigation and restoration of sites contaminated by past practices is implemented in steps, or phases, with provisions for emergency removal actions or other rapid responses if an imminent danger to public health is identified. The main steps, or

phases, in the cleanup process are described briefly below. The names used here are specific to the CERCLA process. The equivalent phase names used in the RCRA program are provided at the end of the List of Acronyms.

- **Preliminary Assessment (PA)** – This is the initial review and analysis of available information to determine whether a release is likely to have occurred. The PA describes the potential source and nature (type) of releases, includes a preliminary evaluation of threats to the public health and welfare and/or the environment, and recommends subsequent phases in the cleanup process. This is the phase during which a site's relative risk is evaluated. The end of the PA is the first point at which the decision to close out a site may be made, if there are enough data to support that decision. The rationale supporting a closeout decision should be documented in a Decision Document (DD) and reviewed by the appropriate stakeholders.

- **Site Inspection (SI)** – This phase is conducted for areas of concern that are identified during the PA, or for munitions response areas. The SI must satisfy any data requirements for determining relative cleanup priority that were not met in the PA phase, characterizes the presence or absence of contamination, and determines the next appropriate phase. Screening level human health and/or ecological risk assessments may be performed for MMRP sites during this phase. A decision to close out a site may be made at the end of the SI, if there are enough data to support that decision. The rationale supporting a closeout decision must be recorded in a no further action (NFA) DD.

- **Remedial Investigation (RI)/ Feasibility Study (FS)** – The nature (types) and extent (vertical and horizontal boundaries) of the contamination and the nature (types) and extent (severity) of any threat to human health and environment are determined in the RI. This is the phase during which detailed quantitative human health and/or ecological risk assessments are conducted.

  Potential cleanup (remedial) alternatives to address any threats to human health and the environment are developed and evaluated during the FS. Potential remedial alternatives are evaluated based on an established set of nine USEPA criteria. The criteria evaluation allows the Army to identify the preferred remedy, which is the remedial alternative that meets the applicable or relevant and appropriate requirements (ARARs) and best mitigates threats to human health and the environment.

The sampling and analysis plan (SAP) details the field sampling schedule, sample collection procedures, and analytical methods required to collect sufficient data to perform an RI/FS for a site.

The site management plan provides details pertaining to site security, site access, health and safety, contingency procedures, waste disposal, management responsibilities, document management, project meetings, and audits during the RI.

The human health risk assessment (HHRA) provides a qualitative and quantitative evaluation of the current and potential risks posed to human health by the presence of site contaminants. Risk assessments evaluate both the carcinogenic risks and non-carcinogenic risks to human health from exposure to site contaminants.

The ecological risk assessment (ERA) provides a qualitative and quantitative evaluation of the current and potential risks posed to ecological receptors from exposure to site contaminants.

The **proposed plan** (PP) is a synopsis of the RI/FS that summarizes for the public what the remedial alternatives are, how they were evaluated, and how they compared to one another in each of the nine criteria. Based on results of the criteria evaluation, the Army identifies the remedial alternative that meets the ARARs and best mitigates any threats to human health and the environment. This alternative is identified as the Army's preferred remedy during the formal remedy selection process.

After coordination with the regulators, the PP is distributed to the public for review and comment before a final remedy is selected. After the public review and comment on the PP, the selected remedy is revised as needed and documented in a ROD. A ROD is a legal document that specifies the cleanup remedy, its performance objectives, and its endpoint. While the Army is always a signatory to a ROD for one of its installations, federal or state regulatory signatures also may be required based on a site's National Priorities List (NPL) and/or RCRA status. A summary fact sheet also is made available to the public at this point in the process. Further information on this process is available in *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents* (USEPA, July 1999).

- **Remedial Design (RD)** – This phase begins after the final remedy has been selected and documented in a ROD. The RD phase includes establishing information requirements and performance objectives, obtaining design

information from the military installation, and discussing the design concept with technical experts.

- **Remedial Action – (Construction) [RA-C] –** The final remedy documented in the Record of Decision and designed during the RD phase is constructed and/or put in place at the site undergoing cleanup. When the RA-C phase is complete, the Army classifies the site as remedy-in-place (RIP).
- **Remedial Action- (Operation) [RA-O] –** A site is in the RA-O phase while the remedy is operating or in progress, and the performance of the remedy is monitored to measure progress toward the cleanup goals.
- **Long-Term Management (LTM) –** Post-project activities such as long-term operations or LTM may also be required to document the continued effectiveness of the selected remedy. At the point in the restoration process when cleanup goals have been met and the regulating authorities believe NFA is warranted to protect human health and/or the environment, "closeout" occurs. For any site that is not restored to a condition that allows unlimited use/unrestricted exposure, the protectiveness of the remedy is reviewed during the five-year review process.

2.3.1.2 Regulatory/Policy Drivers

The DERP is the statutory authority that establishes an environmental restoration program for DoD. The scope of the DERP is defined in 10 United States Code (USC) § 2701(b), which states:

> *"Goals of the program shall include the following: (1) identification, investigation, research and development, and cleanup of contamination from hazardous substances, and pollutants and contaminants; (2) correction of other environmental damage (such as detection and disposal of unexploded ordnance) which creates an imminent and substantial endangerment to the public health or welfare or to the environment; (3) demolition and removal of unsafe buildings and structures, including buildings and structures of the DoD at sites formerly used by or under the jurisdiction of the Secretary."*

When Congress established the DERP they directed that DoD cleanup efforts be consistent with the CERCLA. CERCLA itself [Section 120 (a), 42 USC § 9620] requires that cleanup efforts at federal facilities be conducted in accordance with the substantive and procedural requirements of CERCLA. Executive Order 12580 delegate authority to various federal officials, including the DoD, the responsibility vested in the President for implementing CERCLA. Due to these reasons, and in order to have a common framework for managing a national cleanup program, the Army uses CERCLA as the primary legislative authority for

managing environmental cleanup. In addition, the use of CERCLA provides the Army greater flexibility and authority to manage cleanups and provides specific exemptions from other laws in order to streamline and expedite remedial work. Although environmental activities at Longhorn AAP are conducted under the CERCLA, RCRA issues are addressed as ARARs.

Longhorn AAP is on the NPL and in accordance with CERCLA and the NCP, the Army is the lead agency for all remedial actions at the installation. The role of the state is outlined in CERCLA §120(f) and 40 CFR §300.500 and grants the state the opportunity to review and comment on all draft documents and must also identify state standards that are to be used for cleanup requirements as ARARs. When a state law or regulation becomes an ARAR, the remedial action must meet those substantive requirements that are more stringent than an existing federal requirement. When Longhorn AAP was an active installation, it operated under a RCRA permit.

The USEPA listed the Longhorn AAP on the NPL on Aug. 9, 1990. In August 1991, the U.S. Department of Army, the USEPA and the Texas Water Commission (TWC) [now called Texas Commission on Environmental Quality (TCEQ)] signed a Federal Facilities Agreement (FFA) (CERCLA Section 120 Agreement). The Army is lead agency at Longhorn AAP, and the USEPA and state regulators provide review and concurrence on documents related to the NPL sites listed in the FFA. Other sites were later added to the list of NPL sites with both the concurrence of the U.S. Department of Army and the USEPA: Sites 3, 4, 37, 46, 47, 49, 50, 58, 67, LHAAP-001-R-01, LHAAP-003-R-01, and LHAAP-004-R-01. The FFA was not revised to include these sites. The non-NPL sites are addressed under CERCLA, with TCEQ as lead regulator for those sites. Longhorn AAP is obligated to conduct remedial actions in accordance with CERCLA, RCRA, and the policy and procedures documented in the DERP Manual (March 2012).

2.3.2 History of the Cleanup Program at Longhorn AAP

As part of the IRP, the U.S. Army began environmental investigations in the 1970s at Longhorn AAP. In 1980, the U.S. Army Toxic and Hazardous Material Agency (USATHAMA) conducted a record search to assess the impact of the installation activities including usage, storage, treatment, and disposal of toxic and hazardous materials on the environment, and defined conditions that could potentially affect human health and the environment (USATHAMA, 1980).

In 1984, a contamination survey of Longhorn AAP was completed (EPS, 1984). Subsequently, in 1987 as part of the RCRA permit application process and as a continuation of the contamination survey, the U.S. Army Environmental Hygiene Agency (USAEHA) identified, described, and evaluated all solid waste management units (SWMUs) at Longhorn AAP (USAEHA, 1987). Units requiring further sampling, investigation, and corrective action were delineated.

In 1988, a preliminary RCRA facility assessment (RFA) was conducted by the U.S. Army (Maley, 1988). Waste at the various sites was characterized, but no samples were collected. Since 1988, various environmental investigations, studies, and reports were conducted for numerous areas throughout the installation to address possible contamination at Longhorn AAP. Studies conducted at the plant identified volatile organic compounds (VOCs); heavy metals; petroleum, oil and lubricants (POLs); perchlorate; and explosives.

2.3.3 Current Status of Cleanup Sites

Longhorn AAP currently has a total of 57 environmental cleanup sites. Table 2-1 provides a summary of information on the sites that have achieved RC.

Background information is provided in Table 2-2 for the remaining IRP sites at Longhorn AAP that have ongoing remedial actions. Site descriptions are not included for the sites that are already in the LTM phase or have NFA DDs in progress. Figure 2-2 depicts each of the remaining IRP sites. Twenty-three sites are in the LTM phase and 14 others have NFA DDs in progress. Information on the sites that are not listed can be found in the Information Repository for LHAAP.

2.3.3.1 Building 722 Paint Shop (LHAAP-03)

This site was a waste collection site outside of the paint shop at Building 722-P. Building 722-P was used for paint spraying and polyurethane spray coating of various items. Heavy metal-based primers, waste solvents and contaminated rags were collected in a 55-gallon drum on a gravel pad in an open-sided shed.

The SI report was completed in August 2009. An engineering evaluation/cost analysis (EE/CA) has been drafted to evaluate removal action alternatives for metal-contaminated soil.

2.3.3.2 LHAAP Pilot Wastewater Treatment Plant (LHAAP-04)

LHAAP-04 was closed under RCRA guidelines in November 1997. The Installation-Wide Baseline Ecological Risk Assessment in 2007 did not identify any potential risk to ecological receptors. Additional investigations after the risk assessment found unacceptable levels of mercury in soil, and perchlorate in soil at levels that could potentially migrate into the groundwater. A soil removal action was performed and is documented in the 2011 Final Completion Report, Non-Time Critical Removal Action for this site. As part of the removal action, a well was installed to sample groundwater beneath the backfilled excavation area. The results indicated that perchlorate was present in the groundwater at a concentration that exceeded the TCEQ industrial groundwater value for perchlorate. The FS has been prepared to evaluate remedial action alternatives for the perchlorate-contaminated groundwater at this site. The final remedy has not been selected for this site.

Table 2-1. Response Complete Cleanup Sites at Longhorn AAP

Site	Site Name	Statute	Legal Driver	Reason for RC
LHAAP-05	Power House Boiler Pond	CERCLA/Non-NPL	No agreement	RCRA Closure, no further action anticipated. Decision document underway.
LHAAP-09	Building 31-W Drum Storage	CERCLA/Non-NPL	No agreement	RCRA Closure, no further action anticipated. Decision document underway.
LHAAP-32	Former TNT Waste Disposal Plant	CERCLA/NPL	FFA	Risk evaluation determined site is suitable for unrestricted use
LHAAP-48	Y-Area	CERCLA/Non-NPL	No agreement	Risk evaluation determined site is suitable for unrestricted use
LHAAP-53	Static Test Area	CERCLA/Non-NPL	No agreement	Risk evaluation determined site is suitable for unrestricted use
LHAAP-002-R-01	Static Test Area (MMRP)	CERCLA/Non-NPL	No agreement	Risk evaluation determined site is suitable for unrestricted use

Table 2-2. Remaining Installation Restoration and Munitions Response Sites at Longhorn AAP

Site	Site Name	Relative Risk or MRSPP[1]	Statute	Legal Driver	2012 Status
LHAAP-01	Inert Burning Grounds (SWMU 1)	Low	CERCLA/ NPL	FFA	LTM Underway
LHAAP-02	Vacuum Truck Overnight Parking Lot	NE	CERCLA/ Non-NPL	No agreements	LTM Underway
LHAAP-03	Building 722 Paint Shop	Medium	CERCLA/ NPL	Site added after FFA was in place	RI/FS Underway
LHAAP-04	LHAAP Pilot Waste Water Treatment Plant	NE	CERCLA/ NPL	Site Added after FFA	RI/FS Underway
LHAAP-06	Building 54F Solvent	NE	CERCLA/ Non-NPL	No agreement	LTM Underway
LHAAP-07	Building 50G Drum Processing	--	CERCLA/ Non-NPL	No agreement	LTM Underway
LHAAP-08	Sewage Treatment Plant	--	CERCLA/ Non-NPL	No agreement	LTM Underway
LHAAP-11	SUS TNT Burial Site at Ave P & Q (SWMU 11)	Low	CERCLA/ NPL	FFA	LTM Underway
LHAAP-12	Active Landfill (SWMU 12)	High	CERCLA/ NPL	FFA	RA(O) Underway
LHAAP-13	SUS TNT BET Active & Old Landfill (SWMU 13)	Low	CERCLA/ NPL	FFA	LTM Underway
LHAAP-14	Area 54W Burial Ground (SWMU 14)	Low	CERCLA/ NPL	FFA	LTM Underway
LHAAP-15	Area 49W Drum Storage	--	CERCLA/ Non-NPL	No agreement	DD Underway, Army is drafting
LHAAP-16	Old Landfill (SWMU 16)	High	CERCLA/ NPL	FFA	RI/FS Underway
LHAAP-17	No. 2 Flashing Area Burning Ground (SWMU 17)	High	CERCLA/ NPL	FFA	RI/FS Underway
LHAAP-18	Burning Ground/Washout Pond (SWMU 18)	High	CERCLA/ NPL	FFA	RI/FS Underway
LHAAP-19	Construction Materials Landfill	--	CERCLA/ Non-NPL	No agreement	DD Underway, Army is drafting
LHAAP-23	Building 707 Storage Area PCBs	--	CERCLA/ Non-NPL	No agreement	LTM Underway

Table 2-2 (continued)

Site	Site Name	Relative Risk or MRSPP[1]	Statute	Legal Driver	2012 Status
LHAAP-24	Former Unlined Evaporation Pond (SWMU 24)	High	CERCLA/ NPL	FFA	RI/FS Underway
LHAAP-27	South Test Area/Bomb Test Area	--	CERCLA/ NPL	FFA	LTM Underway
LHAAP-29	Former TNT Production Area (SWMU 29)	High	CERCLA/ NPL	FFA	RI/FS Underway
LHAAP-34	Building 701 – PCB Storage	--	CERCLA/ Non-NPL	No agreement	DD Underway, Army is drafting
LHAAP-35	Sumps (145) Various	High	CERCLA/ Non-NPL	No agreement	LTM Underway
LHAAP-36	Explosive Waste Pads (27)	--	CERCLA/ Non-NPL	No agreement	LTM Underway
LHAAP-37	Chemical Laboratory Waste Pad	Medium	CERCLA/ NPL	Site Added after FFA	RA(C) and RA(O) Underway
LHAAP-45	Magazine Area	Medium	CERCLA/ Non-NPL	No agreement	LTM Underway
LHAAP-46	Plant 2 Area	Medium	CERCLA/ NPL	Site Added after FFA	RA(C) and RA(O) Underway
LHAAP-47	Plant 3 Area	High	CERCLA/ NPL	Site Added after FFA	RI/FS Underway
LHAAP-49	Former Acid Storage Area	--	CERCLA/ NPL	Site Added after FFA	LTM Underway
LHAAP-50	Former Waste Disposal Facility	High	CERCLA/ NPL	Site Added after FFA	RA(C) and RA(O) Underway
LHAAP-51	Photographic Laboratory/Bldg #60B	--	CERCLA/ Non-NPL	No agreement	LTM Underway
LHAAP-52	Magazine Washout Area	--	CERCLA/ Non-NPL	No agreement	DD Underway, Army is drafting

Table 2-2 (continued)

Site	Site Name	Relative Risk or MRSPP[1]	Statute	Legal Driver	2012 Status
LHAAP-54	Ground Signal Test Area	--	CERCLA/ NPL	Site Added after FFA	LTM Underway
LHAAP-55	Septic Tank (10)	--	CERCLA/ Non-NPL	No agreement	LTM Underway
LHAAP-56	Vehicle Wash Rack and Oil/Water Separator	NE	CERCLA/ Non-NPL	No agreement	RI/FS Underway; DD in progress
LHAAP-57	Rubble Burial Site	--	CERCLA/ Non-NPL	No agreement	DD Underway, Army is drafting
LHAAP-58	Maintenance Complex	Medium	CERCLA/ NPL	Site Added after FFA	RA(C) and RA(O) Underway
LHAAP-59	Storage Building 725	--	CERCLA/ Non-NPL	No agreement	LTM Underway
LHAAP-60	Former Storage Building 411 & 714	Medium	CERCLA/ Non-NPL	No agreement	LTM Underway
LHAAP-61	Water Treatment Plant	--	CERCLA/ Non-NPL	No agreement	DD Underway, Army is drafting
LHAAP-63	Burial Pits	--	CERCLA/ Non-NPL	No agreement	DD Underway, Army is drafting
LHAAP-64	Transformer Storage	--	CERCLA/ Non-NPL	No agreement	LTM Underway
LHAAP-65	Building 209	NE	CERCLA/ Non-NPL	No agreement	RI/FS Underway; DD in progress
LHAAP-66	Transformer at Building 401	--	CERCLA/ Non-NPL	No agreement	LTM Underway
LHAAP-67	Above Ground Storage Tank	Medium	CERCLA/ NPL	Site Added after FFA	RA(C) and RA(O) Underway
LHAAP-68	Mobile Storage Tank Parking Area	--	CERCLA/ Non-NPL	No agreement	LTM Underway

Table 2-2 (continued)

Site	Site Name	Relative Risk or MRSPP[1]	Statute	Legal Driver	2012 Status
LHAAP-69	Service Station Underground Storage Tanks	--	CERCLA/ Non-NPL	No agreement	DD Underway, Army is drafting
LHAAP-70	Loading Dock of Magazine 811-50	--	CERCLA/ Non-NPL	No agreement	DD Underway, Army is drafting
LHAAP-71	Building 813 Oil Spill	--	CERCLA/ Non-NPL	No agreement	DD Underway, Army is drafting
LHAAP-001-R-01	South Test Area/Bomb Test Area	04	CERCLA/ NPL	Site Added after FFA	RI/FS Underway
LHAAP-003-R-01	Ground Signal Test Area	04	CERCLA/ NPL	Site Added after FFA	RI/FS Underway
LHAAP-004-R-01	Pistol Range	No Longer Required	CERCLA/ NPL	Site Added after FFA	LTM Underway

[1]Relative risk applies to IRP sites. MRSPP scores apply only to MMRP sites. Both are defined in Section 2.3.1.

NE - Not evaluated

-- No relative risk information listed in 2012 IAP document.

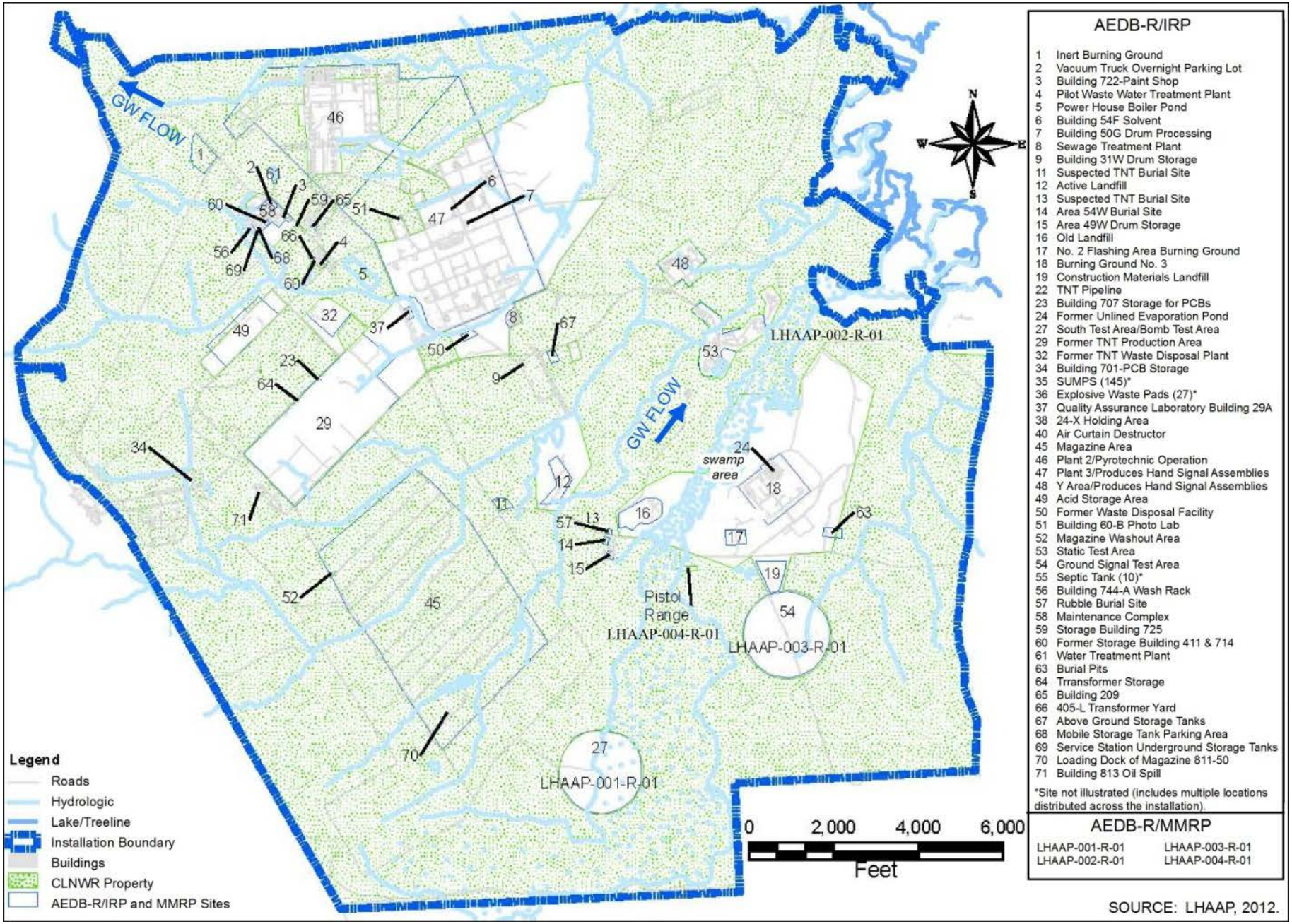

Figure 2-2. Active Cleanup Sites at Longhorn AAP

2.3.3.3 Active Landfill (SWMU 12) (LHAAP-12)

This site was used for the disposal of non-hazardous industrial waste and had been intermittently used since 1963. Continuous use of the landfill began around 1978. Although the back section of the landfill was closed, the front section continued to be used until its closure in March 1994. An SI conducted in 1993 concluded that an IRA consisting of a landfill cap was necessary to reduce further contamination to the groundwater. In 1997 the landfill cap was completed and cap maintenance started in 1998. In 2002 the first five-year review was completed. The second five-year review was completed in 2008.

In 2002 the RI was completed. Groundwater analysis showed that some metals, chlorides, VOCs, explosive compounds, and low levels of perchlorate were present. In three groundwater sampling rounds conducted in February 2003, February 2004, and December 2004, perchlorate was not detected. In 2005 the FS was finalized. In August 2006 sampling to support Monitored Natural Attenuation (MNA) began. A ROD was signed in July 2006 and in June 2007 the remedial design addendum was finalized. The surrounding sediment and surface water were evaluated as part of the plant-wide ecological risk assessment and no chemicals of concern were identified. Current actions include MNA with land use controls (LUCs) consisting of cap protective provisions and groundwater use restrictions. Though not a statutory requirement for this site, in 2007 USEPA determined that the remedy was operating properly and successfully.

2.3.3.4 Old Landfill (SWMU 16) (LHAAP-16)

This site was originally used to dispose of products generated from the TNT wastewater treatment plant; however, a variety of waste was disposed in the landfill until the 1980s. This waste may have included burned rocket motor casings, substandard TNT, barrels of chemicals, oil, paint, scrap iron and wood. VOC and metals concentrations above regulatory action levels have been found in the soil, surface water and groundwater around the site. Low levels of explosive compounds were detected in the groundwater.

An SI conducted in 1993 concluded that an IRA consisting of a landfill cap was necessary to reduce further contamination of the groundwater. The cap was completed in 1998. In late 1997 as part of a treatability study, eight extraction wells were installed to prevent contaminated groundwater from impacting Harrison Bayou. This system is still in operation; however, extracted water volume is low. Groundwater extracted from this site's containment system is piped to the groundwater treatment plant (GWTP) at Site LHAAP-18.

Perchlorate was first detected in groundwater at this site in 2000. Volatiles and perchlorate have been detected in the surface water of Harrison Bayou. In 2002 the RI was completed along with a five-year review. In March 2002 a final interim FS for this site was issued. A draft FS addendum to the final interim FS was submitted in February 2007 and the FS was finalized in March 2010. A preliminary MNA evaluation was completed in 2007. The second five-year review was completed in 2008. The PP was finalized in September 2010.

Quarterly surface water sampling of the Harrison Bayou area has not shown significant contamination. The ROD is draft final.

2.3.3.5 No. 2 Flashing Area Burning Ground (SWMU 17) (LHAAP-17)

This site was used to burn bulk TNT, photoflash powder, and material rejected from Universal Match Corporation's production processes. From 1959 until 1980 the site was operated as a burning ground. In 1959 buildings razed at Site LHAAP-29 were burned at this site. This site is situated approximately 400 to 500 feet southwest of Burning Ground No. 3.

In 1984, waste residues were removed and the area grassed over. Volatiles were found in the groundwater and both VOCs and explosive compounds were found in the soil. In 2000 perchlorate was detected in site groundwater and soil. In 2002 the RI was completed and a draft FS was prepared. In 2004 additional data gap studies were completed. A revised draft FS was submitted in 2009 and the FS was finalized in 2010. The PP was finalized in May 2010. The ROD is draft final.

2.3.3.6 Burning Ground/Washout Pond (SWMU 18) (LHAAP-18)

This site, known as Burning Ground No. 3, began operation in 1955. The site was used for the treatment, storage, and disposal of solid and liquid explosives, pyrotechnics, and combustible solvent wastes by open burning, open detonation, and burial. The unlined evaporation pond (UEP) known as Site LHAAP-024 was constructed in 1963 within Burning Ground No. 3. Explosive compounds, VOCs, and metals were detected in the soils and groundwater. In 1998 perchlorate was detected in the groundwater. In 1986 sludge from the UEP was removed and the area was capped. Quarterly monitoring has been conducted at the site since closure of the UEP.

In May 1995 the IRA ROD was signed for this site. The IRA addressed soil and shallow groundwater contamination. In 1997, 30,000 cubic yards (cy) of soil were excavated and treated. The treated soil was used as fill at Sites LHAAP-012 and LHAAP-016. A GWTP, with approximately 5,000 feet of interception collection trenches, has been installed to control migration of contaminated groundwater. After treatment the extracted groundwater is discharged either to on-site sprinklers, a holding pond or into Harrison Bayou depending upon the amount of water in the bayou. In 1999, a fluidized bed reactor treatment system was installed to treat the perchlorate that had been detected at this site.

In 2002 the RI was completed, followed by a draft FS. The final remedy has not been selected for this site. Other sites that have been included with this site are: DERPMIS 38 24X Holding Area [RCRA Closure Report for 90 Day Waste Storage Area 24-X for Longhorn AAP Sites 18 and 24 (Burning Ground 3), Karnack, Harrison County, Texas, August 2000, Complete Environmental Service], DERPMIS 39 25X Washout Pad, DERPMIS 40 Air Curtain Destructor, DERPMIS 41 Open Burning Cage [RCRA Closure Report for Burning Cage Unit No. 6 for

Longhorn AAP Sites 18 and 24 (Burning Ground 3), Karnack, Harrison County, Texas, May 1999, Complete Environmental Service], DERPMIS 42 Open Burning Pan, DERPMIS 44 Building 41-X [RCRA Closure Report for 90 Day Waste Storage Area 41-X for Longhorn AAP Sites 18 and 24 (Burning Ground 3), Karnack, Harrison County, Texas, August 2000, Complete Environmental Service], and DERPMIS 62 Building 43-X [RCRA Closure Report for 90 Day Waste Storage Area 43-X for Longhorn AAP Sites 18 and 24 (Burning Ground 3), Karnack, Harrison County, Texas, December 2000, Complete Environmental Service].

2.3.3.7 Former Unlined Evaporation Pond (SWMU 24) (LHAAP-24)

The three-acre UEP was constructed in 1963 within the Burning Ground No. 3. Explosive compounds, VOCs and metals were detected in the soils and groundwater. In 1985, all liquid, sludge, and soil contaminated with elevated concentrations of total barium and exhibiting high Chemical Oxygen Demand (COD) values were removed from the pond and disposed in accordance with USEPA regulations. The pond was then backfilled and capped. The TWC certified in March 1986 that the UEP was closed in accordance with the approved closure plan. In 1999, perchlorate was detected in the groundwater. Quarterly monitoring has been conducted at the site since closure of the UEP. The final remedy has not been selected for this site.

2.3.3.8 Former TNT Production Area (SWMU 29) (LHAAP-29)

From April 1943 to August 1945, the former TNT production area operated as a six-line plant with a supporting acid plant. The plant produced 180 million kilograms of TNT throughout the period of operation. A bulk toluene storage area was located adjacent to the production area. The wastewater from the production of the TNT was sent through wooden pipelines to a storage tank and pump house, and then to the TNT wastewater treatment plant which is Site LHAAP-032. Cooling water from the production area ran through main lines and into an open ditch. In 1959, the structures, except the foundations, were demolished and removed. Through the late 1980s a portion of the northwest corner of the site was used for washout of Pershing 1 and 2 rocket motor casings using trichloroethylene (TCE) and methylene chloride.

Explosive compounds have been detected in site soil, surface water, sediment, and groundwater samples. High concentrations of VOCs (including TCE and methylene chloride) have been detected in the groundwater with the highest concentrations in the intermediate hydrostratigraphic unit, and the presence of methylene chloride as a dense non-aqueous phase liquid is suspected. In 2000 perchlorate was first detected in the soil and groundwater at this site.

In 2002 the RI was completed, followed by a draft FS. In FY05 field sampling for soils was conducted and in FY06 six wells were installed and sampled. A revised draft FS was submitted in 2008 and finalized in 2010. The ROD is draft final and will include soil removal, flushing and plugging lines, in situ chemical oxidation treatment of groundwater, MNA and LUCs.

2.3.3.9 Chemical Laboratory Waste Pad (LHAAP-37)

This site was a collection point for spent solvents from the quality assurance lab. It consisted of one 55-gallon drum set on a concrete pad. This site was included in an RI/FS. The ROD was finalized in August 2010 and included MNA and LUCs for the site. The RD was finalized in August 2011. The RA is on hold while a two-year bioplug demonstration is implemented at the site that began in March 2012. RIP will be achieved at this site followed by RA(O) and LTM.

2.3.3.10 Plant 2 Area (LHAAP-46)

This site, known as Plant 2, had facilities for production of jet bomb (JB)-2 propellant fuel from 1944 through 1945. From 1952 through 1956 it was used to produce pyrotechnic ammunition, such as photoflash bombs, simulators, hand signals, and tracers for 40mm ammo. Plant 2 was reactivated to produce pyrotechnic and illuminating devices from 1964 through 1997. The SI determined that groundwater was contaminated with VOCs.

The ROD was finalized in September 2010 and included MNA and LUCs for the site. A notification, not a remedy or LUC, will be filed in Harrison County, Texas, stating that the site is suitable for non-residential use in accordance with the Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required. The RD was finalized in September 2011. The remedy selected for this site is MNA for groundwater. RIP will be achieved at this site followed by RA(O) and LTM that will involve MNA and LUCs.

2.3.3.11 Plant 3 Area (LHAAP-47)

This site is known as Plant 3 and was used from 1954 to the early 1980s to produce rocket motors. Some of the rocket motor facilities were converted to produce pyrotechnic and illumination devices, and this operation continued until 1997. An SI determined that groundwater was contaminated with VOCs, perchlorate, and metals and a soil source for perchlorate was identified. The FS was finalized in July 2011. The final remedy has not been selected for this site.

2.3.3.12 Former Waste Disposal Facility (LHAAP-50)

This site of approximately one acre received wastewater from the sumps at Plants 2 and 3 from 1955 to the early 1970s. Washout of ammonium perchlorate containers was also performed at this site. Volatiles and perchlorate were detected in the soil samples. VOCs, metals and perchlorate were detected in the groundwater.

In 2002 the RI was completed and in 2010 the FS and ROD were finalized. The ROD includes soil removal, MNA and LUCs (groundwater use restriction) for the site. A notification, not a remedy or LUC, will be filed in Harrison County, Texas, stating that the site is suitable for non-residential use in accordance with the Texas Administrative Code Title 30 §335.566. The

RD was finalized in September 2011. The VOCs and perchlorate in groundwater pose an unacceptable risk to human health. In 2004 data gap sampling was completed and in February 2008 an additional shallow well was installed downgradient of the site. The remedy selected for this site is MNA for groundwater and excavation and disposal of soil. RA(O) will involve MNA and LUC.

2.3.3.13 Maintenance Complex (LHAAP-58)

This site, also known as the shops area, was used to provide plant-operated laundry, automotive, woodworking, metalworking, painting, refrigeration, and electrical services. VOCs were detected in the groundwater. The ROD was finalized in 2010 and includes in situ bioremediation for the eastern groundwater plume and MNA and LUCs (groundwater use restriction) for both the eastern and western groundwater plumes. A notification, not a remedy or LUC, will be filed in Harrison County, Texas, stating that the site is suitable for non-residential use in accordance with the Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required. The RD was finalized in September 2011. The final remedy has been selected for this site and the RA(O) will involve MNA and LUC.

2.3.3.14 Above Ground Storage Tank (LHAAP-67)

This site consisted of seven aboveground storage tanks (ASTs) containing Number 2 fuel oil, kerosene or solvents. The ASTs had earthen dikes sufficient to contain a potential spill. The motor fuel tanks were registered with the state and have been removed. Central Creek runs to the south of this site. In 2001, VOCs were detected in the groundwater. The data indicates that the impact is limited.

In 2002, the RI was completed and in 2004 additional sampling was conducted. The final FS was completed in August 2005. The ROD was finalized in August 2010 and included MNA and LUCs (groundwater restriction) for the site. A notification, not a remedy or LUC, will be filed in Harrison County, Texas, stating that the site is suitable for non-residential use in accordance with the Texas Administrative Code Title 30 §335.566. LTM in the form of five-year reviews is required for this site. A five-year review report in the form of a letter stating the use of the site remains non-residential is required. The RD was finalized in August 2011. RIP will be achieved at this site followed by RA(O) and LTM.

2.3.3.15 South Test Area/Bomb Test Area (LHAAP-001-R-01)

This site is approximately 70 acres located southeast of Avenue P and the magazine area, at the end of 70th street, near the southern boundary of Longhorn AAP. The site was constructed in 1954 and used until June 1994 by Universal Match Corporation for static testing of 150-pound M120/M120A photoflash bombs produced at the facility until about 1956. During the late 1950s, illuminating signal devices were also demilitarized within pits at this site and leaking production

items were demilitarized in the area in the early 1960s. The final RI report in May 1997 indicates approximately 52,000 one-half and one-pound photoflash cartridges were demilitarized at the site during the early 1980s. A reported demolition site was identified on the northwest perimeter of this site and was added to the investigation.

In 1998, an NFA ROD for the co-located IRP site LHAAP-27 was signed by the Army and USEPA based upon the site-specific assessment of human and ecological exposure to the contaminants of potential concern at the site.

In October 2007 an EE/CA report was finalized. An IRA was funded for this site with the final Explosives Safety Submission (ESS) completed in March 2008. The Army signed an action memorandum for this site that included a removal action and LUCs. The removal action was completed in 2009 and LUCs. The LUCs consist of MEC warning and dig restriction signage around the perimeter of the site, educational pamphlets and a video. The signage has been installed and surveyed and the pamphlets and video have been prepared and transmitted to stakeholders. The ROD is draft final and includes limited groundwater monitoring for perchlorate and LUCs. Five-year reviews are planned for this site.

2.3.3.16 Ground Signal Test Area (LHAAP-003-R-01)

This site of approximately 80 acres is located in the southwestern portion of the installation. In April 1963 this site was used intermittently for aerial and on-ground testing and destruction of a variety of devices, including red phosphorus smoke wedges, infrared flares, illuminating 60 and 81 mm mortar shells, illuminating 40 to 155 mm cartridges, button bombs, and various types of explosive simulators. The site was also used intermittently over a 20-year period for testing and burnout of rocket motors from Nike-Hercules, Pershing, and Sergeant missiles. Around 1970, one of the Sergeant rocket motors exploded in an excavated pit near the center of the site. Debris was reportedly placed in the resulting crater and backfilled. From late 1988 through 1991, the site was also used for burnout of rocket motors in Pershing missiles destroyed in accordance with the INF Treaty between the U.S. and the former Soviet Union. In January 1998 an NFA ROD for Hazardous, Toxic and Radioactive Waste (HTRW) under CERCLA was signed. The site is currently undeveloped.

In 1998, an NFA ROD for the co-located IRP site LHAAP-54 was signed by the Army and USEPA based upon the site-specific assessment of human and ecological exposure to the contaminants of potential concern at the site. An IRA was funded with the final ESS completed in March 2008. The Army signed an action memorandum for this site that included a removal action and LUCs. The removal action was completed in 2009. The LUCs consist of MEC warning and dig restriction signage around the perimeter of the site, educational pamphlets and a video. The signage has been installed and surveyed and the pamphlets and video have been prepared and transmitted to stakeholders. The ROD is draft final and includes limited groundwater monitoring for perchlorate and LUCs. Five-year reviews are required and planned at this site.

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3.0 COMMUNITY BACKGROUND

The subsections that follow present an overview of the surrounding community and a general chronology of community participation and communications to date, as well as the results of the community interviews conducted by the Army and its contractor during the week of September 17 – 21, 2012. The USEPA reviewed and provided feedback on the questionnaire prior to its use for the interviews. Over the course of community interviews, residents and other stakeholders expressed a wide range of issues and concerns. Their responses showed a high level of knowledge about the site's history and about current and future activities. The cleanup timeframe is important to many people who want the cleanup to move forward and not be delayed by the actions of others.

3.1 Community Profile

As of the 2010 census, the population of Harrison County was 65,631, indicating a 5.6 percent increase in population since 2000. Approximately 28.6 percent of the county population is under the age of 19. The 2010 U.S. Census data indicated that approximately 15.2 percent of the population lived in households with incomes below the poverty level. The U.S. Census also indicated that 21.9 percent of people in Harrison County were of African-American descent while 11.1 percent were predominately of Hispanic heritage. The 2010 Census data indicates that 83.7 percent of the population over age 25 have a high school diploma and 16.2 percent have a four-year college degree. The population of Harrison County is primarily English speaking. Approximately 72 percent of Harrison County residents live in housing units that are owned by the residents. The former Longhorn AAP is situated in a rural populated area of the county. The areas directly adjacent to Longhorn AAP are small communities with populations varying from 94 to 23,523. A portion of the former Longhorn AAP as discussed in Section 2.2 is maintained by the USFWS as a wildlife refuge. Cities such as Karnack, Uncertain, and Marshall benefitted when Longhorn AAP was in operation as the plant served as the largest employer for people residing in those cities. Demographic data for these cities and the county follows (U.S. Census Data, 2010).

3.1.1 Harrison County

The installation is located within the boundaries of Harrison County. According to the 2010 census, the county covers a total area of 899.95 square miles with an average population density of 72.9 persons per square mile.

As indicated above, there were 65,631 residents in the county recorded during the 2010 census. There were 27,704 housing units which includes 24,523 occupied households. Approximately 52 percent of households are married couples living together with children. The average household size is 2.6.

The racial makeup of the county is 68.6 percent White, 21.9 percent African American, 0.7 percent American Indian or Alaska Native, 0.6 percent Asian, 6.5 percent reporting as other, and 1.7 percent reporting two or more races. General population by ethnicity is reported as 11.1 percent Hispanic or Latino and 88.9 percent as Non-Hispanic or Latino.

The age distribution is 28.6 percent aged 19 and under, 6.4 percent between 20 and 24 years old, 31.7 percent between 25 and 49 years old, and 33.3 percent aged 50 or older. The median age is 37.4 years. The population is 49.1 percent male and 50.9 percent female.

The median income for a household in the county is $54,598. The per capita income for the county is $22,019. Of the total population, 15.2 percent are living below the poverty line.

3.1.2 Karnack

Karnack has 2,807 residents. There are 995 households in Karnack and approximately 56 percent of housing units are owned by the residents. The average household size is 2.3.

The racial distribution was reported as 68.4 percent White, 24.8 percent African-American, 1.1 percent American Indian or Alaska Native, 0.3 percent Asian, and 5.4 percent reporting as other. General population by ethnicity is reported as 5.7 percent Hispanic or Latino and 94.3 percent as Non-Hispanic or Latino.

The median income for a household is $39,674. The per capita income is $26,306. Of the total population, 32.5 percent have incomes below $25,000.

3.1.3 Uncertain

The city of Uncertain has a total area of 0.5 square miles with an average population density of 188 persons per square mile. There were 94 residents in Uncertain recorded during the 2010 census. There were 146 housing units which includes 60 occupied households. The average household size is 1.7.

The racial makeup of the city is 78.7 percent White and 21.3 percent African American. The general population by ethnicity is reported as 100 percent Non-Hispanic or Latino.

The age distribution is 4.3 percent aged 19 and under, 1.1 percent between 20 and 24 years old, 19.1 percent between 25 and 49 years old, and 75.5 percent aged 50 or older. The population is 55.3 percent male and 44.7 percent female.

The median income for a household in the city is $45,000. The per capita income for the city is $28,798.

3.1.4 Marshall

The city of Marshall has a total area of 29.6 square miles with an average population density of 809 persons per square mile.

There were 23,523 residents in Marshall recorded during the 2010 census. There were 9,691 housing units, of which 8,603 were occupied households. The average household size is 2.6.

The racial makeup of the city is 48 percent White, 38.3 percent African American, 0.8 percent American Indian or Alaska Native, 0.8 percent Asian, 0.04 percent Native Hawaiian and Pacific Islander, 10.4 percent reporting as other, and 1.7 percent reporting two or more races. General population by ethnicity is reported as 17 percent Hispanic or Latino and 83 percent as Non-Hispanic or Latino.

The age distribution is 26.4 percent under the age of 18, 60 percent between 18 and 64 years old, and 13.6 percent 65 years or older. The population is 47.6 percent male and 52.4 percent female.

The median income for a household is $39,968. The per capita income for the city is $19,964. Of the total population, 33.4 percent have incomes below $25,000.

3.2 History of Community Involvement

In 2004 administrative control of Longhorn AAP was transferred to the BRAC Division and at that time BRAC officials decided to dissolve the Technical Review Committee and establish a RAB. The RAB is a forum comprising representatives of the U.S. Army, the USEPA, state and local government, tribal government, and the affected community. RAB members advise installation decision makers concerning environmental restoration at military installations. The RAB should reflect the diverse makeup of the community, give all stakeholders the opportunity to participate in the restoration process, monitor restoration progress, and offer the community the opportunity to make its views known to decision makers. The RAB meets quarterly. The latest solicitation for community interest in RAB membership was in June 2010. Public notices placed in local newspapers informed the public of the role of the RAB and provided a 30-day response period. Candidates for new RAB members may be presented by current RAB community members; interested people should contact the co-chairs and submit a completed RAB application form to the co-chairs in order to be eligible for selection.

3.3 Community Feedback

3.3.1 Methodology

This section describes the methodology that Longhorn AAP used to collect community input to develop this CIP. It also summarizes the communication preferences and concerns that the interviewees voiced.

3.3.1.1 Regulatory Compliance

The Army, and thus Longhorn AAP, follows the NCP, Title 40 Code of Federal Regulations (CFR) Subpart E, Part 300 Section 415 (n) 3 (iii), and RCRA Section 7004(b) requirements for developing CIPs. The NCP requires interviews with a minimum of 10 to 15 community members. The CIP provides information on how and when local residents have opportunities to be involved. Interviews are held to help prepare a meaningful community involvement plan. The purpose of the interviews is to obtain qualitative information about each community member's level of familiarity with the environmental cleanup program, their concerns, and their preferences for receiving cleanup information. These interviews are not intended to extract quantitative information (that is, information that can be used for statistical analysis). Since Longhorn AAP is on the NPL and the USEPA is a stakeholder in the cleanup, the Army provided a copy of the questionnaire to regulators for their review and comment in August.

3.3.1.2 Interview Participants

To prepare this CIP, the Army conducted community interviews from Sept. 17-21, 2012, with people who live in the affected community, which includes Karnack, Uncertain, Marshall, Jefferson, Longview, and Caddo Lake areas. Interviewees included general community members, RAB members, former Longhorn AAP employees, school district employees, city management, chamber of commerce representatives, local active citizen group members, and USFWS personnel.

3.3.1.3 Recruiting Efforts

The installation provided a list of potential interview participants to represent those individuals in the affected community that previously expressed interest in the environmental restoration program and the RAB membership list. Additional community members were contacted to increase the cross-section of the community input. The interview participants included representatives from the following groups:

- RAB members;
- Local and city representatives including a mayor, school district staff, public librarian, business owners, etc.;
- Representatives of local environmental citizen groups;
- Civic leaders including representatives from Chamber of Commerce and Tourism offices;
- Residents and landowners from neighborhoods surrounding Longhorn AAP;
- USFWS staff; and

- Former Longhorn AAP employees.

An invitation via telephone on behalf of the installation was delivered to each of the individuals approximately three weeks before the scheduled interview period. The phone call communication sought participation interest and scheduled an interview at a time and place convenient for the participant.

Interviews were conducted at participants' places of employment or their residence, the local public library, or by email when an in-person meeting could not be arranged. Also, the USFWS staff located in a facility on Longhorn AAP provided a conference room to conduct interviews. Appointments were confirmed with 25 people; two people were unable to make their scheduled appointments due to unforeseen circumstances and an additional two people were identified during the week for a total of 25 interviews. To protect confidentiality, the Army does not disclose the identities of interviewees associated with specific responses.

3.3.1.4 Issue Identification Approach

The primary purpose of collecting input from the community is to identify issues and concerns and to learn how and when local residents want to be involved so that the Army can address them via its community outreach and involvement efforts. To obtain this information, interviewers asked participants the following questions:

1. How long have you lived in this community?

   What do you do for a living?

2. Do you believe that the community benefits from its proximity to the Former Longhorn AAP?

   How would you describe the relationship between the community and the installation?

3. Are you familiar with what the Former Longhorn AAP is and what they do there?

   Do you have any concerns about the installation? If so, what are they?

4. How sensitive is the local area to environmental issues on a scale of 1-5? (1 = not sensitive, 5 = very sensitive)

5. What environmental issues are you concerned with in your community?

6. Are you aware of any environmental issues, including the environmental investigation and cleanup activities, at the Former Longhorn AAP?

7. What do you know about the environmental issues at the installation?

8. When did you first become aware of the environmental issues at the installation? How did you become aware?

9. What issues are important to you in terms of the Longhorn AAP environmental investigation and cleanup? Such as health issues, cost or time to cleanup, or others?

10. How or where have you received most of your information about environmental issues? (Website, Newspaper, TV Stations, Radio, Newsletter, Other)
    a. In your opinion, does the media in the area do an adequate job on reporting environmental news?

11. Who would you consider the most credible source of information when it comes to the Former Longhorn AAP environmental cleanup program? Least credible?

12. Have you had any contact with local, state, or other officials regarding the installation's environmental restoration program?
    a. If so, what was the nature of the contact?
    b. What kind of response did you receive?

13. Do you have confidence in the Army's ability to conduct the environmental cleanup at the installation?
    a. If no, how can the Army's credibility be improved?

14. What do you know about the history of community involvement concerning the environmental restoration activities at the Former Longhorn AAP? For example, the last time that the Former Longhorn AAP solicited interest in additional membership in the Restoration Advisory Board was in June 2010.
    a. Are you aware of any individuals or groups in your area who have emerged as leaders on environmental issues?
    b. Do you feel these individuals/groups adequately represent your concerns?
    c. Are you aware that the Former Longhorn AAP conducts a Restoration Advisory Board meeting quarterly?
    d. Have you observed public notices identifying the time and location of these meetings?

15. It sounds as if you're well informed about the installation's environmental program. (reference the LHAAP contact information)
16. Which methods of providing information about the restoration activities at Longhorn AAP would work best for you?

- Public meetings
- Letters
- Fact sheets
-Websites
- Social media (Facebook, Twitter)
- Open houses
- Speakers at community forum

How frequently would you like to receive information?

17. What would be the best location for community meetings?
    What would be the best day of the week and time to hold a meeting?

18. Are you aware of the information repository that is available for public use? It is located at the Marshall Public Library.
    a. Have you used or do you think you would use the information repository?
    b. What would you like to see in the repository?
    c. Is the current location of the information repository convenient for you? If no, where would be convenient for you?

19. Do you have any questions you would like answered about the former Longhorn AAP or its environmental restoration program?

20. If you have any questions or comments in the future, how would you prefer the installation respond to them (e.g., email, phone)?

21. Do you have any other comments, questions, or concerns about the installation?

22. What do you think the community wants to know about the Longhorn AAP cleanup program?

Responses to the interview questions and the discussions arising from them identified the primary concerns, priorities, preferences, and perceptions of the participants as presented in the following sections and in Table 3-1.

3.3.2 Overview of Findings

While a sample of 25 people is not statistically significant compared to the overall area population, the interviewees' comments and insights provided information to help design the Longhorn AAP community involvement program. These findings are representative only of the individuals who participated in community interviews and should not be construed as directly representative of the larger population.

Table 3-1. Community Interview Responses

Question	Answer
1. How long have you lived in this community?	The average interviewee has lived in the area approximately 22 years; the least time spent in the community was 3 months and the longest 69 years. 1 to 10 years – 7 11 to 20 years – 4 21 to 40 – 4 > than 41 years – 10
1a. What do you do for a living?	The following types of professions were represented among the interviewees: Business Owners/Managers, Educators, School Administrators, Engineers, City Staff, Chamber of Commerce President, Librarian, Prior Longhorn AAP employees, Tourism Director, Business employees.
2. Do you believe that the community benefits from the proximity to the Former Longhorn AAP?	Nearly all interviewees recognized the economic benefit of Longhorn AAP when the plant was in operation due to the availability of jobs. Interviewees recognize the value of the refuge, the recreation activities available for the public and potential for further development of the refuge that will help the tourism industry in the local area. Some interviewees did not think there is a benefit now from the plant since it is closed and the loss of revenue to the community as a result. Some individuals think that the public is frustrated because the Army tried to transfer property that USFWS could not accept due to its cleanup standards. Community wants agreement between the Army and USFWS officially completed and signed and water rights are transferred to USFWS. Yes – 19 No – 4 Fair – 2

Table 3-1 (continued)

Question	Answer
2a. How would you describe the relationship between the community and the installation?	The individuals have mixed responses concerning the relationship between Longhorn AAP and the surrounding communities. Many individuals are positive about the future recreational development of the wildlife refuge at Longhorn AAP, the logging business and revenue provided to the schools, and they mentioned the tourism industry in the area will benefit from the wildlife refuge and potential for more employment in the area. Many individuals did not want the plant developed for industrial use and described political battles won over this issue. Few individuals are positive about BRAC's involvement in the environmental cleanup process. Some individuals expressed a good relationship between the USFWS and the community. Some individuals are frustrated with the Army concerning the length of time to transfer property to the USFWS and they would like better communication between the Army and the community concerning environmental cleanup activities at Longhorn AAP. Some individuals would like to see environmental cleanup information presented to the community in a format that they can understand. They are not interested in superficial description but would like to understand the environmental cleanup process better. Individuals are concerned about the water rights issues at Caddo Lake. Others think the community has a good relationship and have not heard anything different. Good/Positive – 15 OK/Neutral – 4 Strained/Divided – 3 Not Sure – 3
3. Are you familiar with what Longhorn AAP and what they do there?	Interviewees were familiar with the installation and its mission. Many had family members and other knew individuals who worked at the plant. Yes – 24 No – 0 Vaguely – 1

Table 3-1 (continued)

Question	Answer
3a. Do you have any concerns about the installation?	Yes – 17 No – 8
3b. If so, what are they?	Wide-range of responses, including: Transfer of property between Army & USFWS with deed restrictions – 5 Asbestos issues in buildings – 1 Downgradient extent of contamination with Longhorn AAP environmental cleanup activities – 2 Groundwater contamination – 6 Ability to supply potable water to residents - 1 Lake quality and protection of resource – 2 Water rights and Caddo Lake – 2 Public health issues – 2 Dioxins – 2 Agent Orange used by Forest Service – 1 Mercury contamination - 1 Lack of information on environmental cleanup activities provided to the community by the Army – 4 Longhorn AAP environmental cleanup activities will take hundreds of years and cleanup issues not adequately addressed – 4 Usage of the refuge and lack of jobs in area - 3 Amount of money spent on cleanup of plant – 1

Table 3-1 (continued)

Question	Answer
4. How sensitive is the local area to environmental issues on a scale of 1-5 (1=not sensitive, 5=very sensitive)	Average: 3.6 1: 4 responses 1.5 –1.8: 2 responses 2: 0 responses 3: 3 responses 3.5: 1 response 4: 4 responses 4.85: 1 response 5: 10 responses The responses covered a broad spectrum. Some of the interviewees mentioned that most of the population is not concerned about environmental issues. Others mentioned that the community is concerned about the natural lake and water quality issues due to groundwater contamination from past plant operations and activities; mercury from power plants; Giant Salvinia plant issue and its effect on the lake. Others are concerned about the lack of communication between the Army and the community and the necessity for communication due to the types of contamination from the plant activities.
5. What environmental issues are you concerned with in your community?	Water quality – 8 Upstream feed lots/chicken plants/logging operations – 1 Coal power plant operations/lack of environmental controls/acid rain – 4 Transfer of Army property to USFWS – 1 Groundwater contamination/Army's response to cleanup/discharge of contamination to lake – 7 Asbestos – 1 Health issues related to the plant – 4 Mercury – 1 Recycling – 1 Global warming – 1 Air quality from pine trees – 1 Invasive species/Giant Salvinia – 2 Some interviewees provided more than one specific environmental issue.

Table 3-1 (continued)

Question	Answer
6. Are you aware of any environmental issues including the environmental investigation and cleanup activities at the Former Longhorn AAP?	Most of the individuals are aware of the Army's environmental cleanup program. Yes – 17 No – 4 Maybe – 4
7. What do you know about the environmental issues at the installation?	Longhorn AAP is a superfund site and it is one of the worst sites due to past plant operations and activities and health issues associated with these wastes -1 Army's entire cleanup process including the cleanup of perchlorate plume and transfer of property-6 Groundwater contamination issues and remedies-2 Water quality issues and impacts on the environment-1 One interviewee was concerned about lack of data that has been collected to clean up sites-1 Others knew about pumping systems, water treatment plant, decommissioning facility at installation-3 One individual mapped the installation and is aware of waste buried at the installation-1 Abundance of Giant Salvinia in Caddo Lake -1 No Response – 4
8. When and how did you first become aware of the environmental issues?	During debate in late '90s about reuse as refuge versus industrial – 6 When plant was closed/decommissioned in 1996 – 4 As RAB member -1 Public Meeting with Friends of Caddo Lake Wildlife Refuge – 1 Lived in community entire life – 1 Worked at Plant – 1 Word of mouth – 5 (became aware early '90s, 2002, 2004, 2006) Family members/friends worked at Plant – 2 Became aware of plant operations/activities during employment at Red River AAP in 1960s– 1 No response – 4

Table 3-1 (continued)

Question	Answer
9. What issues are important to you in terms of the Former Longhorn AAP environmental investigation and cleanup? Such as health issues, Cost or time to clean up, or others.	Health – Yes: 12 Costs – Yes: 3 Time – Yes: 9 Others (Intended use of land after cleanup, cleanup standards, investigations not adequately conducted, transfer of property, fully clean up sites, define groundwater contamination plume, Army chose remedies that allowed them to walk away from cleanup, did not select remedies that would allow cleanup at a faster rate, information that is provided to the community, lack of straight answers from Army/TCEQ/USEPA/USFWS, people not scientifically equipped to solve cleanup issues, invasive species/Salvinia) – 10 Some interviewees provided more than one specific environmental issue.
10. How or where have you received most of your information about environmental issues? (Website, Newspaper, TV Stations, Radio, Newsletter, Other)	Website – 6 Newspaper – 8 TV Stations – 2 Social network – 1 Emails – 1 Directly from Army, USEPA, TCEQ – 1 RAB Meetings – 6 Caddo Lake Institute Meetings – 1 Greater Caddo Lake Association Meetings – 1 Word of Mouth – 8 Community Meetings – 2 Clearinghouse for Information – 1 Books/Magazines – 6 Specific Speakers on Topics – 3 Some interviewees cited more than one source of information

Table 3-1 (continued)

Question	Answer
10a. In your opinion, does the media in the area do an adequate job on reporting environmental news?	Most interviewees mentioned that not much is reported on environmental issues in the local community near Longhorn AAP since most of the community does not care. Local newspapers are interested in other types of news at the moment and environmental issues are not a big issue. Also, they watch the television station from Shreveport, LA which does not report environmental news at Longhorn AAP. Yes - 6 No – 19
11. Who would you consider to be the most credible source of information when it comes to the Former Longhorn AAP's environmental cleanup program?	Army/restoration contractor – 9 USFWS – 3 RAB Co-Chairman/Members – 8 Community Members/Friends – 5 All of the Cleanup Team - 1 Not sure – 2 Some respondents cited more than one source.
11a. Least Credible?	Restoration contractor – 4 Army – 7 USEPA – 2 TCEQ – 2 RAB – 1 US Army COE – 1 TV/Newspaper – 3 Local residents – 3 Environmental Groups – 1 Texas Parks & Wildlife – 1 Don't Know – 5 Some respondents cited more than one source.

Table 3-1 (continued)

Question	Answer
12. Have you had any contact with local, state, or other officials regarding the environmental restoration program? If so, what was the nature of the contact? What kind of response did you receive?	Yes – 13 No – 12 Many of the interviewees have had contact with federal and state elected officials as well as federal and state regulatory and other agencies. Their main concerns were issues concerning water rights; environmental issues pertaining to Caddo Lake; development of the wildlife refuge versus industrial redevelopment of the former plant area; conversations during RAB meetings; and length of time and costs to clean up Longhorn AAP. They received responses to their concerns from the officials.
13. Do you have confidence in the Army's ability to implement environmental cleanup at the installation?	Yes – 13 No – 8 Not Sure – 3 No Response – 1
13a. If no, how can the Army's credibility be improved?	Provide accurate, honest, upfront information to community that they understand – 9 Presence in the community – 2 Conduct town hall meetings to inform community on cleanup activities – 2 Complete the cleanup activities in timely manner – 1 Stay out of politics – 1 Seek others to review cleanup activities – 1 No Response – 9
14. What do you know about the history of community involvement concerning the environmental restoration activities at the Former Longhorn AAP? For example, the last time that the Former Longhorn AAP solicited interest in additional membership in the RAB was in June 2010?	Approximately half of the interviewees were aware of any history of community relations concerning environmental restoration at the installation. Yes – 14 No - 10 Possible – 1
14a. Are you aware of any individuals or groups in your area who have emerged as leaders on environmental issues?	Yes – 20 No – 5 Interviewees mentioned local environmental groups and members; RAB members; Caddo Lake residents, and USFWS.

Table 3-1 (continued)

Question	Answer
14b. Do you feel these individuals/groups adequately represent your concerns?	Yes – 11 No – 8 No Response – 5 Not Sure – 1
14c. Are you aware that the Former Longhorn AAP conducts a RAB meeting quarterly?	Yes – 12 No – 12 No Response – 1
14d. Have you observed public notices identifying the time and location of these meetings?	Yes – 14 No - 10 Not Sure – 1 Interviewees said they received emails about the meetings
15. It sounds as if you're well informed about the installation's environmental program (reference the LHAAP contact information).	This is not a question; no response required.
16. Which methods of providing information about the restoration activities at Longhorn AAP would work best for you?	Public Meetings – 13 RAB - 1 Letters – 7 Fact sheets – 5 Websites – 7 Social Media (Facebook, Twitter) - 5 Open Houses – 4 Speakers at Community Forums – 9 Emails – 7 Fliers – 1 Newspaper – 1 Electronic Newsletter – 1
16a. How frequently would you like to receive information?	Annual – 3 Quarterly – 5 Monthly – 2 Every 6 Months – 1 As information is Available or as Needed – 8 No Response – 6

Table 3-1 (continued)

Question	Answer
17. What would be the best location for community meeting?	Karnack Community Center – 13 Caddo Lake State Park Visitor Center – 1 Karnack School – 3 Harrison Electric Corporation Building in Marshall – 1 Jefferson Transportation Center – 1 No Response – 6
17a. The best day of the week and time to hold a meeting?	Day of week: Weekdays – 14 Weekends – 3 Anytime – 2 No Response – 6 Time of day: Afternoons – 1 Evenings – 6 Mornings – 7 Anytime - 5 Most people prefer meetings to be held on post either during or just after work hours.
18. Are you aware of the information repository that is available for public use? It is located at the Marshall Public Library.	Yes – 12 No – 13
18a. Have you or do you think you would use an information repository?	Yes – 10 No – 13 Not Sure – 1 No Response – 1
18b. What would you like to see in the repository?	Besides the information that is found in the information repository, interviewees suggested other materials be included in the repository such as: general document information about the cleanup process that is easy for the community to understand; timelines for cleaning up the sites; catalogue of all information in the information repository; information on plans for future actions at Longhorn AAP; information on contaminants and cleanup activities; entire history of sites; health information about the sites; and information on the transfer of land to USFWS.

Table 3-1 (continued)

Question	Answer
18c. Is this current location of the information repository convenient for you? If no, where would be convenient for you?	Yes – 12 No – 10 (three would like USFWS, two would like school library, one would like location in Jefferson, and four would like online access) No Response – 3
19. Do you have any questions you would like answered about the Former Longhorn AAP or its Environmental Restoration Program? (reference the LHAAP contact information)	No – 9 Yes – 15 No response – 1 Interviewees who responded by answering "no" would like answers to the questions presented to the Army in writing on August 6, 2009; how long the cleanup process will take; if plant has contaminated the lake water; historical information about the plant placed along the trails at the wildlife refuge; are the cleanup activities going to affect the community; status of cleanup activities; health effects on community; how information will be provided to the public; would like to see photos and maps of the cleanup process; and would like to see more cleanup data..
20. If you have any questions or comments in the future, how would you like the installation to respond to them?	Email – 23 Letters – 1 Phone – 1 Contact RAB Members -1 Some of the interviewees chose more than one method.
21. Do you have any other comments, questions, or concerns about Longhorn AAP?	No – 10 Yes – 15 Interviewees would like to see that the Longhorn AAP cleanup activities get properly completed; get property and water rights transferred to USFWS ASAP; like to know when the cleanup process will be completed; groundwater contamination effects on community; how much timber will be cut and where money is going; bow hunting on the wildlife refuge; health issues associated with plant cleanup; future plans for Longhorn AAP; need more signs at the refuge; if contaminants leached into the lake; where and how is contaminated material disposed of.

Table 3-1 (continued)

Question	Answer
22. What do you think the community wants to know about the Longhorn AAP cleanup program?	All of the interviewees provided responses on their perception of what the community wants to know about the Longhorn AAP cleanup program. One response that was repeatedly mentioned is that they want to know when the cleanup activities will be completed at Longhorn AAP and when all of the remaining acres and water rights will be transferred from the Army to the USFWS. They would like the cleanup activities to be pushed at a faster rate while ensuring all actions completed at the site are conducted in a thorough and proper manner so that the national wildlife refuge may be further developed and the tourism industry in the local area will continue to grow. They are concerned with health issues and the effects on the local community of the past plant operations and activities and health issues associated with the cleanup process. They want to know that cleanup activities are being conducted safely and no issues will arise after cleanup is completed. They want assurance that the soil and groundwater are properly cleaned up to standards set by USEPA and state regulators. They would like to see communication provided to the community in a manner that is easy to read and provided often so that the community is well aware of the cleanup activities. They would like to see a timetable for the cleanup of the sites at Longhorn AAP.

3.3.2.1 Community Perceptions (Questions 1 Through 5)

The interviewees were unanimous in their recognition that the former Longhorn AAP was a major employer and during the time when the plant was in operation, it was economically beneficial to the surrounding communities. Some of the interviewees think that there is no longer a benefit from the plant since its closure and the associated loss of jobs. They recognize the value of the wildlife refuge that is located on a portion of the former plant and the potential for further development of the refuge that will boost the local tourism industry. Many individuals have mixed responses on the relationship between the community and the installation. Ongoing environmental cleanup activities at the plant have caused a delay of the transfer of the remaining acres of land from the U.S. Army to the USFWS. As a result, the wildlife refuge is not being developed at a rate that is noticeable to the tourism industry. The local communities have hopes of expanding recreational activities at the wildlife refuge.

All individuals were familiar with the installation and its mission. There was a wide range of responses to concerns about Longhorn AAP. Responses are generally characterized as property transfer issues between the Army and USFWS involving deed restrictions; public health issues as a result of past plant operations and environmental cleanup activities; water quality at Caddo Lake; groundwater contamination associated with the plant; length of time to clean up sites at the plant; and lack of information provided to the public on cleanup activities. The average interviewee responses indicate that the community ranks sensitivity to environmental issues as 3.6 on a scale of one to five. With one being not sensitive and five being very sensitive, interviewee responses ranged from one to five. The general environmental concerns most often voiced were:

- **Natural Lake and Water Quality Issues** – Caddo Lake is the only natural lake in Texas. Water quality was a prevalent concern, due to the plant's proximity to the lake and groundwater contamination issues as a result of the past plant operations and activities that potentially could impact the lake.
- **Giant Salvinia Plant** – The Giant Salvinia plant is an invasive species that many residents are concerned will take over the lake if not brought under control. This would have a major impact on the tourism and recreational industry surrounding the Caddo Lake area.
- **Mercury from Coal-Fired Power Plants** – Many residents are concerned about the coal burning activities at nearby power plants and the presence of mercury in Caddo Lake.

3.3.2.2 Installation Environmental Program Knowledge (Questions 6 Through 13)

Most of the participating individuals were aware of environmental issues. Health, cost and timeliness of cleanup were of concern for many, but all felt that in the end the important issue was that the job got done, no matter what it takes. Other issues such as cleanup standards, adequately conducting investigations, and getting straight answers from the Army, USEPA, TCEQ or USFWS are just as important. The general knowledge of the installation's mission was evident and its relationship to the environmental restoration investigation and cleanup is known.

Most of the interviewees indicated that they received their environmental news regarding the installation through word-of-mouth, the local media and web-based sources, even though the majority feel the media does not do an adequate job of reporting on environmental issues in general.

Organizations mentioned as providing credible information included Longhorn AAP leadership, the restoration contractor, and the RAB membership. Organizations providing the least credible information included the Longhorn AAP leadership and the restoration contractor.

Thirteen of the 25 interviewees have strong confidence in the Army's ability to implement environmental cleanup at the installation.

3.3.2.3 Community Involvement Activities (Questions 14 Through 19)

Ten interviewees were unaware of the history of community relations concerning environmental restoration at the installation.

Several ideas were suggested for providing information about restoration activities. Public meetings, speakers at community forums, search-enabled websites, emails, open houses, fact sheets, and letters were preferred forms of communications. Public meetings, speakers at community forums, and websites were highly regarded since websites could be easily accessed at any time of the day and the public sessions offered information and discussions through face-to-face interactions. Fact sheets and letters were mentioned as methods of receiving information that could provide an initial short summary of the environmental restoration program. Most of the interviewees would like to receive information as it becomes available; other interviewees' preferences for receiving their information ranged from a monthly to an annual basis.

The interviewees are interested in public meetings and having speakers at community forums. They thought the most convenient locations and times for these meetings would be the local Karnack Community Center or Karnack School on a weekday evening. The majority did not wish to attend gatherings held on Wednesday due to conflicts with scheduled church activities.

Twelve of the 25 participants were aware of the information repository available for public use while 13 were unaware of its existence or what purpose it served. Ten interviewees indicated they would use the repository if they had a need to research the cleanup program. While the current location was considered convenient by 12 of the interviewees, ten offered suggestions for other locations or access such as the USFWS, the school library, or a search-enabled web database so that users could more efficiently look for specific topics of interest.

3.3.2.4 Community Comments (Questions 20 Through 22)

In response to future questions, almost all of the interviewees indicated a preference of an e-mail response. One interviewee expressed interest in an “in writing” reply.

3.4 Responses to Concerns

Based on the results of the interview process, most interviewees have comments, questions, or concerns about the Longhorn AAP Environmental Restoration Program or Longhorn AAP. The major concerns of the interviewees are that they would like to see that cleanup activities are properly completed; that property and water rights are transferred from the Army to USFWS as quickly as possible; and they want to know when the cleanup process is going to be completed. They also want to know about the groundwater effects on the community and the health issues associated with past plant operations and cleanup activities.

All of the interviewees provided responses on their perception of the community’s needs regarding the Longhorn AAP cleanup program. One response that was repeatedly mentioned was they want to know when the cleanup activities will be completed at the installation and when all of the remaining land will be transferred from the Army to the USFWS so that the wildlife refuge can be further developed and the tourism industry is allowed to grow. They want to make sure that the Army completes the cleanup process in a thorough and proper manner and they are concerned about the health effects to the community as a result to the cleanup process and the past plant operations. They want assurance that the soil and groundwater are cleaned up to standards set by USEPA and state regulators. They would like to see communications improved between the U.S. Army and the community and information provided to them in an easily understood manner as often as it becomes available. They would like the U.S. Army to continue presenting information on the cleanup activities until everyone is the community understands and is knowledgeable about the efforts. They are concerned about the water quality and conservation of Caddo Lake and air quality in the surrounding communities. They are also concerned about the Army’s ability to implement cleanup. They would like upfront, accurate, honest information from the U.S. Army and the restoration contractor concerning the cleanup program at Longhorn AAP. A number of comments and recommendations identified valid opportunities to improve community involvement, and have been incorporated into Chapter 4.

3.5 Summary of Communication Needs

The majority of the interviewees felt the communication between the government and community needed to change concerning the environmental restoration issues and they were confident in the Army's ability to investigate and clean up the property. As is evidenced by the desire for public-forum meetings, most felt that the Longhorn AAP leadership and environmental staff were the most valuable sources of information. Most interviewees would rather hear about issues first-hand than through word-of-mouth or news outlets, which were portrayed as weak sources of credible information for the area.

Of those who indicated that they wanted to receive information, most interviewees preferred an easily understood summary of the cleanup program followed by information provided as cleanup actions are completed.

Approximately half of the interviewees were unaware of the information repository. Half of them liked the repository concept and said they most likely would use it if they had a need. Many would like to see the information repository moved to a different location such as the USFWS or the school library and several liked the idea of having web access to the repository.

Overall, the interviewees expressed their desire for the cleanup activities at the Longhorn AAP to be completed so that development of the wildlife refuge can continue on the former Longhorn AAP.

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4.0 COMMUNITY INVOLVEMENT ACTIVITIES

This CIP has been designed to allow the community to learn about and participate in the environmental cleanup process. Concise and timely communication with the public is essential for maintaining understanding and support of the Army's mission and for implementing successful environmental restoration activities. Community involvement efforts will be directly proportional to the community's needs for information and willingness to participate in the process.

Section 4.1 discusses the objectives of the CIP for Longhorn AAP. Section 4.2 presents methods and mechanisms for implementing the CIP. Section 4.3 defines the activity schedule and frequency for specific ongoing community participation actions and those performed at project milestones. Section 4.4 outlines opportunities available to the community for technical assistance.

4.1 Objectives

The CIP is designed to encourage the public's involvement in the environmental cleanup program by providing information to the public and media on a timely basis. The CIP is a "living document", meaning that it will be modified as new information and issues develop over the course of the investigation and cleanup of the installation. The purpose of the CIP is not to provide technical answers to the community's questions, but to show how, when, and where the Army will provide information the public needs to understand the work being done at the installation, and show how the stakeholders can be actively involved in the cleanup process.

Longhorn AAP has the following objectives for this CIP:

- Establish effective and comprehensive mechanisms for informing the community of environmental program activities;
- Solicit input and identify concerns the local community may have regarding ongoing and planned environmental program actions; and
- Maintain a strategy that encourages ongoing, two-way communication between the Army and the local community.

These objectives will be addressed by implementing the community involvement actions described in the following section that are most applicable to the Longhorn AAP community. In addition, surveys will be distributed to the public biennially to determine the effectiveness of the community involvement activities.

4.2 Community Involvement Activities

The community involvement activities presented in this section are based on regulatory guidance outlined in the USEPA's *Superfund Community Involvement Handbook* (USEPA, 2005) and the *RCRA Public Participation Manual* (USEPA, 1996). The activities are presented

below in the order of those required to occur at particular milestones throughout the program followed by those that are appropriate for the program based on community interest or project circumstances. A proposed schedule for these activities is detailed in Section 4.3.

4.2.1 Points of Contact

Interested community members may contact the following installation staff with questions related to environmental cleanup activities at Longhorn AAP.

Rose M. Zeiler, Ph.D.

Longhorn AAP Site Manager
P.O. Box 220
Ratcliff, AR 72951
479-635-0110
479-635-0112 (Fax)
rose.zeiler@us.army.mil

4.2.2 Information Repository

An Information Repository is a record staging area that contains all correspondence, reports, and documents pertaining to the site, as well as general information. At the Information Repository, people can research the site and the law pertaining to the cleanup and learn how to participate in the cleanup process and copy any information found at the repository. An Information Repository is established and maintained at the Marshall Public Library. A public Information Repository is required under CERCLA to provide interested parties with background and technical information about the environmental cleanup program at Longhorn AAP. The Information Repository includes work plans, technical reports, summary documents, and other information of public interest (e.g., fact sheets and news releases) that are shared with the public. Examples of items currently contained in the Information Repository include:

- The Installation Action Plan;
- Facility Assessments;
- Facility Investigation Reports;
- Cleanup Work Plans and Reports;
- Site Closure Documentation;
- Proposed Plans;
- Correspondence with the regulatory community; and
- Collections of press releases, community notices, public meeting minutes, and fact sheets.

The address and phone number for the building housing the Information Repository are presented in Appendix A.

4.2.3 Administrative Record

The AR is located and maintained at the Longhorn Army Trailer in Karnack, Texas. For sites undergoing CERCLA investigations, the NCP requires that an AR be established at or near the facility under investigation. The AR includes information that may form the basis for selecting a response or RA. It includes all documents leading to the selection of any response action at the installation and contains documents similar to those located in the Information Repository. The address and phone number for the building housing the AR are presented in Appendix A.

4.2.4 Fact Sheets, Hand-Outs, and Flyers

The LHAAP prepares fact sheets to inform the public of the status and significant findings of specific cleanup activities and to ensure that citizens understand the issues addressed under a site's applicable cleanup program. Fact sheets provide detailed information about site history, planned technical activities, schedule updates, and special-interest items. Fact sheets will be mailed to those on the mailing list (see Section 4.2.10) and will be available at the Information Repository. Section 4.3 provides information on regulatory and cleanup process milestones that trigger required or voluntary community involvement activities. Hand-outs provide supplemental information, for example at community meetings. Flyers are one- to two-page notices that are sometimes posted on community bulletin boards. The flyers may also be posted at local businesses and the local post office.

4.2.5 Public Notices

The installation will comply with the requirements for public notification and review of PPs. Public notices serve as official notification to the local community of project plans for environmental activities, upcoming public involvement opportunities, and the availability of documents at the Information Repository. Public notices will be issued to announce public comment periods, public meetings, and regulatory decisions leading to program changes (e.g., site closeout).

Public notices can be prepared and placed in local newspapers, made available as public service announcements to broadcast media, and/or included along with fact sheets sent to those on the mailing list as determined appropriate by the LHAAP. The contact information for the media outlets is provided in Appendix B. For those who are not on the site's mailing list, the Army will announce community meetings and formal comment periods in a display advertisement in the main section of the Marshall News Messenger.

4.2.6 Public Meetings

Public meetings, both informal and formal, are intended to inform the community about ongoing site activities and to discuss and receive feedback from the public on proposed courses of action. Public meetings have been held at Longhorn AAP for proposed plans. A public notification will precede the public meeting and the corresponding document comment period. A public comment period lasts for at least 30 calendar days, allowing time for review and comment on the proposed action. Public comments will be recorded at these meetings and during the comment period, and will be responded to through a responsiveness summary (see Section 4.2.9). As indicated in Figure 4-1, some meetings are required by the governing regulation(s), while others are discretionary. Public meetings are organized to convey site information via presentations and discussions and to answer questions from community members. Each meeting will be structured to fit its purpose by using different formats (e.g., town hall meetings, open houses, informal roundtables, PowerPoint presentations).

4.2.7 Mailing List/E-Mail Group

The LHAAP maintains an e-mail list for electronic distribution and a mailing list for distribution of fact sheets, meeting notes, and periodic site updates. To be added or deleted from the e-mail or mailing list, please contact the Longhorn AAP Site Manager.

4.2.8 Responsiveness Summaries

A responsiveness summary will be prepared and issued to address comments received from the public. At the conclusion of public comment periods, the Army will prepare, or support the state or federal regulator in preparing, a responsiveness summary or minutes that summarize and respond to the comments received during the public comment period, including those comments given at the public meeting. The responsiveness summary is issued as part of the document under comment and made available in the Information Repository listed in Appendix A.

4.2.9 Mailing List Update

LHAAP will prepare and maintain a current mailing list. Mailing lists are an important component of effective community outreach which ensure that interested community members, as well as other stakeholders and communities impacted by or interested in response activities, are kept informed of activities and opportunities for community involvement. A mailing list is used to distribute news releases, fact sheets, and other types of pertinent information for project activities.

As this is considered one of the cornerstones of an effective outreach strategy, the installation has established and will maintain a project mailing list consisting of interested individuals, local officials, and media representatives. The installation will update this mailing list as necessary and appropriate, and will provide information during all community

Public Participation Activities	Environmental Restoration Program Steps								
	Preliminary Assessment	Site Inspection	Pre-Remedial Investigation	Remedial Investigation	Feasibility Study	Proposed Plan	Pre-Record of Decision	Record of Decision	RD, RA, & LTM/LTO
Contact State/Local Officials	D	D		D	D			D	D
News Release	D	D		D	D	D			D
Workshops		D		D	D				
Community Interviews			R(5)						
Community Involvement Plan			R						
Establish Information Repository and Inform Public			R						
Discuss Technical Assistance for Public Participation (TAPP) with RAB			R (1)						
Fact Sheet				D	D	R(2)			R
Public Notice				R		R		R	
Public Meeting (3)						R			
Public Comment Period						R			
Responsiveness Summary							R		
Revise Proposed Plan (4)							R		
Second Comment Period (4)							R		
Revise Community Involvement Plan								R	

R = Required D = Desired

(1) Applicable only to NPL sites that have an active RAB. If site is listed on NPL after the RI begins, then the availability of TAPP is publicized at that time.
(2) Either a fact sheet summarizing the PP, or the complete PP document, must be made available to the public for review (USEPA, 2005).
(3) The opportunity for a public meeting is required. If such a meeting is held, then a transcript must be kept and made available to the public.
(4) Revise Proposed Plan and provide second comment period if significant changes regarding proposed selected remedy are made prior to the ROD and those changes could not have been reasonably anticipated by the public.
(5) Community Interviews are done for the Longhorn Army Ammunition Plant as a whole with CIP development and not for each site.

Figure 4-1. Community Involvement Activities During Environmental Restoration

participation activities as to how individuals and groups can be added to the mailing list. Additionally, an e-mail mailing list can be developed for those community members and stakeholders who prefer to receive project information in an electronic format.

4.2.10 News Media Releases/Newsletter

Copies of news releases, fact sheets, and other pertinent information related to the Longhorn AAP cleanup program may be distributed to appropriate regulatory personnel prior to public release, when possible. This will serve for informational purposes and will allow the agencies to adequately respond to media or public inquiries regarding the news releases. Printed materials may include information regarding the following: status of environmental studies, schedule of RAB meetings, requests for public comments, public notice of significant milestones in the cleanup program, updates on the site cleanup schedule (e.g., notification of public meetings), and public health-related matters. Copies of news releases are also included in the information repository. Interviewees identified the newspaper most frequently as the source of written information about the cleanup program.

Another potential method of informing the community about cleanup program actions is a newsletter. A newsletter can provide regular information about program and site activities to a broad community audience. In addition to providing status updates, the newsletter can highlight upcoming community involvement activities, point of contact information, information repository locations, and instructions detailing how to join the mailing list. Newsletters can be distributed to mailing list members, placed in the Information Repositories, and made available to installation employees.

4.2.11 Speaker Bureaus

Project representatives may be available to conduct presentations for small group meetings, if such requests are received by the LHAAP. These types of interactions would focus on updating groups about project information and status. Project representatives can meet with small groups, such as civic, recreational, neighborhood groups, or schools, to discuss the project upon request. These presentations will be designed to share information about the project and provide an informal forum between project personnel and interested groups where they can discuss different aspects of the project. An important aspect of these types of interactions is that they involve project staff attending existing group meetings, in addition to interacting with stakeholders and community groups in a project-organized forum. Fact sheets can be prepared as handouts to support the presentation and provide contact information for additional information. A notice of availability will be mailed annually to the mailing list to raise awareness and solicit interest from the community. All activities will be coordinated through the USAEC Public Affairs Office.

4.2.12 Update Community Involvement Plan

The CIP will be updated every three years or earlier if there are significant program changes. This CIP is a working document to guide the project staff. All or part of this plan may require revision due to new information or changes in community concerns and needs. The plan will be re-evaluated at these times to ensure that the schedule of community participation activities is appropriate.

4.2.13 Open House

The Army will hold an annual open house at an offsite meeting location to present the status of the environmental restoration program. The open house will be designed to give individuals an appreciation for the environmental resources found on the installation, a feel for the relative extent of hazardous substance contamination, and an understanding of the progress of the cleanup program. Fact sheets can be prepared as handouts to support the presentation and provide contact information for additional information. All activities will be coordinated with the LHAAP.

4.3 Activity Schedule

Figure 4-1 summarizes community involvement activities that are intended to keep the community informed of and involved in the investigation and cleanup process. Activities required at set milestones are identified, as well as additional activities recommended for inclusion in the CIP based on community needs and installation resources. Figure 4-2 presents a generic schedule for implementing typical community involvement activities. Exact dates are not provided for two reasons. First, the exact date that each phase in the Army cleanup process will be completed is not known. Second, different sites can be in different phases in the process depending on when each site was discovered, the relative risk or cleanup priority of the site, and funding available for cleanup. Each site must be tracked individually according to the matrix in Figure 4-2, based on its respective phase in the process.

4.4 Community Grant Opportunities

The TAPP opportunity made available by the U.S. Army to community members of an established RAB who need technical assistance in interpreting scientific or engineering issues connected with proposed cleanup activities. If an Army installation does not have an established RAB, community members are not eligible for TAPP. Community members of an established RAB who are interested in applying for TAPP must contact the LHAAP Site Manager to confirm eligibility and request Army funding.

Community Involvement Activity	Completion of the RI/ FS Work Plan	During RI	Completion of RI	During FS	Completion of Draft FS	Completion of Final FS	Proposed Plan	Record of Decision	Start of RD/ RA
Information Repository/ Administrative Record	*			***Provide as needed***					*
Meetings with Local Officials	*		*		*		*	*	*
Telephone Contact with Local Officials	*								*
Informal Discussion with Local Residents	*	*		***Provide as needed***					*
Fact Sheets/ Technical Summaries		*	*			*	*(1)	*	*
News Releases			*			*	*	*	*
Public Comment Period							*		*
Public Meeting/ Transcript							*		
Conduct Site Tours	*			***Provide as needed***					*
Project Status Meeting	*		***Provide as needed***						*
Milestone Meeting	*		*			*	*	*	*

(1) Either a fact sheet summarizing the PP, or the complete PP document, must be made available for review. NOTE: These are only examples of potential community involvement actions. The process or legal requirements are designated as such in Figure 4-1.

Figure 4-2. Example Community Involvement Matrix

Advisory boards are only one method, among others, that may be used to involve the community. A Technical Assistance Plan enables community groups to retain the services of an independent technical advisor to help interpret and understand technical site information. A Technical Assistance Plan can also provide resources for a community group to help inform other community members about site decisions.

The Technical Assistance Services for Communities (TASC) is a USEPA program that provides "independent, non-advocacy educational and technical assistance to communities affected by hazardous waste sites regulated by the RCRA and CERCLA programs, including sites on federal facilities and tribal land." The program assists communities by engaging diverse stakeholders and building community capacities. While TASC primarily supports the Superfund program, support may also be provided to communities impacted by the RCRA or federal facilities or dealing with air or water environmental problems. Specific information regarding the TASC program is available at the following website:
http://www.epa.gov/superfund/community/tasc

TAGs provide money for activities that help communities participate in decision making at eligible CERCLA sites. An initial grant of up to $50,000 is available to qualified community groups so they can contract with independent technical advisors to interpret and help the community understand technical information about their site. After the independent technical advisor reviews site-related documents, the advisor can help the community form its issues and concerns and communicate them effectively. To qualify, the TAG recipient must be or become an incorporated non-profit organization. The group must establish a bank account to receive funds and create a record of how they will spend federal funds. USEPA staff are available to help a group through the application process. Interested community members may contact Janetta Coats/TAG Project Officer (Appendix E) for more information. Specific information regarding the TAG program is available at the following website:
http://www.epa.gov/superfund/community/tag.

Environmental Exposure Resources -- The Agency for Toxic Substances and Disease Registry is the federal public health agency whose mission is to present adverse human health effects that result from hazardous waste exposure. Contact the Longhorn AAP representative or USEPA Remedial Project Manager who will put you in contact with USEPA toxicologists for site-specific information about the site contaminants, potential routes of exposure and potential adverse health effects.

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5.0 REFERENCES

DoD Manual 4715.20, *Defense Environmental Restoration Program Management*, March 2012.

DoD *Relative Risk Site Evaluation Primer*, 1997. The web site: https://www.denix.osd.mil/derp/upload/rerisk_sec_1.pdf

Environmental Protection Systems, Inc., *Longhorn Army Ammunition Plant Contamination Survey*, Contract #DAAA09-78-C-3004, June 1984.

Maley, Don, *Potential Hazardous Waste Site Preliminary Assessment, EPA Form 2070-12*, April 1988.

Office of the Secretary of Defense, *Restoration Advisory Board Handbook*, February 2007.

Texas Master Naturalist Program web site: http://txmn.org/

United States House of Representatives web site: http://www.house.gov

United States Senators web site: http://www.senate.gov/

U.S. Army, Army Regulation (AR) 200-1, *Environmental Protection and Enhancement*, 2007

U.S. Army, Army Regulation (AR) 360–1, *The Army Public Affairs Program*, October 15, 2000.

USAEC, *Final Closed, Transferred or Transferring Inventory Report*, November 2002.

USAEC, *Longhorn AAP Draft Installation Action Plan*, April 2012.

USAEC, *Restoration Advisory Board and Technical Assistance for Public Participation Guidance*, 2005.

USAEHA, *Final Groundwater Contamination Survey No. 38-26-0851-89, Evaluation of Solid Waste Management Units, Longhorn Army Ammunition Plant, Karnack, Texas*, May 1987.

USATHAMA, *Installation Assessment of Longhorn Army Ammunition Plant*, February 1980.

U.S. Census, 2010: http://2010.census.gov/2010census/

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USEPA, *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents*, July 1999.

USEPA, *National Oil and Hazardous Substances Pollution Contingency Plan (The NCP)*, January 1992.

USEPA, *Resource Conservation and Recovery Act (RCRA) Public Participation Manual*, 1996.

USEPA, *Superfund Community Involvement Handbook*, 2005 and modifications therein.

USEPA Web Site: http://www.epa.gov

APPENDIX A REPOSITORY LOCATIONS

Administrative Record

LONGHORN ARMY TRAILER
Groundwater Treatment Plant Compound
Highway 134 and Spur 449
Karnack, TX 75661
903-679-3192

Information Repository

MARSHALL PUBLIC LIBRARY
300 South Alamo Blvd.
Marshall, TX 75670
903-935-4465/4466

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APPENDIX B
MEDIA CONTACTS

Newspapers

Marshall News Messenger
309 East Austin Street
Marshall, TX 75671
903-935-7914
info@marshallnewsmessenger.com

Longview News-Journal
320 East Methvin Street
Longview, TX 75601
903-757-3311
info@news-journal.com

Jefferson Jimplecute
205 West Austin Street
Jefferson, TX 75657
903-665-2462

Shreveport Times
222 Lake Street
Shreveport, LA 71101
318-459-3200

Television
KTBS 3 (ABC)—Marshall
Newsroom of KTBS Shreveport
200 West Houston Street
Marshall, TX 75670
903-923-0634

KMSS (Fox 33)
3519 Jewella Avenue
Shreveport, LA 71109
318- 631-5677
info@kmsstv.com

KSLA 12 (CBS)
KSLA TV
1812 Fairfield Ave.
Shreveport, LA 71101
318- 222-1212
ksla@ksla.com

KTBS 3 (ABC)
312 East Kings Highway
Shreveport, LA 71104
318- 861-5880

KETK (NBC)
4300 Richmond Road
Tyler, TX 75703
903- 581-5656
info@ketknbc.com

APPENDIX C MEETING LOCATIONS

These places were specifically mentioned by interviewees as convenient locations for holding community meetings.

Karnack

Karnack Community Center
Intersection of Highway 134 and Spur 449
Karnack, TX 75661

Karnack High School
655 Fason Street
Karnack, TX 75661-0259
903-679-3113

Longhorn AAP

U.S. Fish and Wildlife Service
15600 Highway 134
Karnack, TX 75661
903-679-9144

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APPENDIX D
ENVIRONMENTAL AND ACTIVE CITIZEN GROUPS

Caddo Lake Institute (TAG Recipient)
707 Rio Grande, Suite 200
Austin, TX 78701
512-428-9345
info@caddolake.us

Friends of Caddo Lake National Wildlife Refuge
P.O. Box 230
Karnack, TX 75661

Greater Caddo Lake Association (GCLA)
P.O. Box 339
Karnack, TX 75661
info@caddolakenews.org

Texas Master Naturalist Program
Michelle Haggerty, State Coordinator
309 Sidney Baker South
Kerrville, TX 78028

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APPENDIX E
REGULATORY CONTACTS

U.S. Environmental Protection Agency (USEPA), Region VI

Richard Mayer
Superfund Remedial Project Manager
Superfund Division (6SF-RA)
1445 Ross Avenue
Dallas, TX 75202-2733
214-665-7442

Janetta Coats
EPA Community Involvement Coordinator (CIC)
Technical Assistance Grant (TAG) Coordinator
Superfund Division (6SF-VO)
1445 Ross Avenue
Dallas, Texas 75202-2733
214-665-7308 or 1-800-533-3508

Texas Commission on Environmental Quality

April Palmie
SSDAT/Superfund Section (MC-136)
Remediation Division
SUP 126
12100 Park 35 Circle, Bldg. D
Post Office Box 13087
Austin, TX 78753
512-239-4152

APPENDIX F
ELECTED OFFICIALS

FEDERAL:

Senator Ted Cruz
10440 North Central Expressway, Suite# 1160
Dallas, TX 75231
214-361-3500 or

B40B Dirksen Senate Office Building
Washington, D.C. 20510-4304
202-224-5922

Senator John Cornyn
100 East Ferguson Street, Suite 1004
Tyler, TX 75702
903-593-0902 or

517 Hart Senate Office Building
Washington, D.C. 20510-4304
202-224-2934

Congressman Louie Gohmert
1121 ESE Loop 323, Suite 206
Tyler, TX 75701

903-561-6349 (in Tyler) or

2243 Rayburn HOB
Washington, D.C. 20515
202-225-3035
866-535-6302 (Texas Toll Free)

STATE:

Governor Rick Perry
Office of the Governor
P.O. Box 12428
Austin, TX 78711-2428
512-463-2000 (Main Switchboard)
800-843-5789 (Texas Callers)

Senator Kevin Eltife
Capitol Address:

P.O. Box 12068
Capitol Station
Austin, TX 78711
512-463-0101 or

District Address:
P.O. Box 12068Capitol Station
Austin, TX 75601
903-596-9122

Representative Chris Paddie
Capitol Address:
P.O. Box 2910
Austin, TX 78768
512-463-0556 or

District Office:
P.O. Box 2910
Austin, TX 78768

COUNTY/LOCAL OFFICIALS:

Harrison County Commissioner, William D. Hatfield
Harrison County Historical Courthouse
#1 Peter Whetstone Square, Room 307
Marshall, TX 75670
903-935-8402

City of Uncertain, Texas
Mr. Sam Canup, Mayor
199 Cypress Drive
P.O. Box 277
Uncertain, TX 75661
903-789-3443
info@cityofuncertain.com

APPENDIX G
LOCAL GROUPS

Caddo Lake Area Chamber of Commerce and Tourism
P.O. Box 228
Karnack, TX 75661
info@caddolake.org

Marshall, Texas Chamber of Commerce
208 East Burleson Street
Marshall, TX 75670
903-935-7868
contactus@marshalltexas.com

City of Jefferson, Texas Visitor Center
305 East Austin Street
Jefferson, TX 75657
903-665-3733

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LONGHORN ARMY AMMUNITION PLANT (LHAAP) SITE-35B(37) IN SITU MICROBIAL BIOREACTOR (BIO PLUG) FIELD TEST INTERIM REPORT NO. 2

RELEASE DATE: 26 November 2013
TEST OFFICER: Gene L. Fabian
REPORT PREPARED BY: U.S. Army Aberdeen Test Center, Gene L. Fabian
TEST SPONSOR: U.S. Army Environmental Command
TEST EXECUTION PERIOD: March 2013 through September 2013

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(1) Background

The bio plug technology is a method of augmenting and enhancing the in situ biological degradation of chlorinated organic contaminants. The technology involves the installation of microbiological reactors (bio plugs) into the subsurface that will generate and disperse contaminant-specific microorganisms directly into the contaminated zone. The technology is patented by and proprietary to Advanced BioSystems, LLC (ABS); a subsidiary of TMD Technologies Group, LLC.

Bio plugs are small, immobilized microbe bioreactors. They are constructed using slotted PVC or HDPE pipe loaded with an inert porous material which serves as a structural support matrix (media) for the microorganisms. The microbial populations used are consortia of microorganisms selected for their abilities to biodegrade contaminants of concern, as well as their genetic stability, viability after storage, non-pathogenicity, and ability to compete with indigenous microorganisms. Selected microorganisms are attached (immobilized) on the media in high densities. Nutrients and air are supplied to the bio plugs to stimulate microbial respiration, reproduction and to promote microbial dispersion.

A pilot-scale field test of the bio plug technology was initiated at a chlorinated organic contaminated groundwater remediation site at the former Longhorn Army Ammunition Plant (LHAAP) in Karnack, TX. LHAAP-35B(37) is the location of a former chemical laboratory built in the mid-1950's to support propellant production activities at LHAAP. Industrial solid wastes and possibly hazardous wastes were generated at the site. In addition, one wash rack sump was located on the site. The primary groundwater contaminants of concern are tetrachlorothene and trichloroethene. Installation of the pilot-scale bio plug system was completed in Sep 2012. Figure 1 depicts the locations of the bio plugs within estimated contaminant plume, as well as, the bioreactor support equipment (i.e. zone distribution sheds, nutrient mixing equipment, etc.), monitoring well clusters between the bio plug arrays, and existing site monitoring wells. System operation was initialized and stabilized in Oct 2012.

(2) Objectives

The objective for the application of the bio-plug technology test is to accelerate the biological degradation of chlorinated organic contaminants in the groundwater at the test site. The critical performance assessment factor is an increase in the rate of contaminant concentration reduction as detected in monitoring wells. In addition, an increase in the contaminant degrading microbial

population throughout the targeted treatment zone is an expected indicator of enhanced bioremediation performance.

(3) Test Procedures

Prior to initiation of bio plug system operation, baseline samples were collected from the existing monitoring wells and the twelve cluster wells installed between the bio plug arrays in accordance with the approved site work plan (ref 1). Groundwater field parameters (well depth, temperature, conductivity, pH, oxygen reduction potential, dissolved oxygen, and total dissolved solids) were recorded for each well. Samples were collected for volatile organic compound (VOC) and total metals analysis in accordance with USEPA SW-846, Methods 8260B and 6020, respectively. Samples were also collected for microbial population enumeration using the guidelines of Method 9215B - Standard Methods for the Examination of Water and Wastewater, 20th Edition.

ATC began quarterly monitoring of the groundwater to assess the bio plug systems' contaminant reduction and microbial population changes in the groundwater in Dec 2012. The results of the Dec 2012 and Mar 2013 were reported in Interim Report No. 1 (ref 2). ATC continued quarterly monitoring in Jun and Sep 2013. The same field parameter data were collected and sample analyses were performed as those collected for baseline characterization and previous quarterly monitoring periods.

(4) Test Data

Baseline samples for VOC and total metals analyses were collected in Jul 2012 prior to initiation of bio plug system operation. After the initiation of system operations in Oct 2012, quarterly samples have been collected for comparison to the baseline contaminate concentrations. The analysis results of the samples collected after the first and second quarters of operation were summarized in Interim Report No. 1 (ref 2). The sample results for the primary VOC contaminates (tetrachloroethene (PCE), trichloroethene (TCE), and 1,1-dichloroethene) collected after the third and fourth quarters of operation, Jun and Sep 2013, respectively, are summarized in Tables 1 - 3. All chemical analysis data collected during third and fourth quarters of system operation were previously provided to USAEC when made available by the analytical laboratory. Only data pertaining to the primary contaminates which support the assessment of interim technology performance is included in this interim report. The metal analyses indicated low concentrations of metals consistent with historical metals data collected at this site. No changes in the metals concentrations have been observed between the baseline data and the quarterly monitoring metals data.

Quarterly samples have been collected for microbial enumerations in conjunction with VOC contaminate sample collection beginning in Dec 2012. As discussed in Interim Report No. 1, the Dec 2012 microbial enumeration results are being used as the baseline microbial population levels because sediment in the samples collected during the Jul and Sep 2012 baseline events skewed microbial population data. The Dec 2012 is considered representative of baseline levels because distribution of the microbes through the groundwater layer to the monitoring wells between the rows of bio plugs had not occurred at this point. Limited distribution of microbial population between the bio plug rows within the first three months of operation is typical at most sites. Distribution of the microbial population within the bio plug array is dependent upon the

site geology and hydrology, contaminant types and levels, and bio plug array spacing. This can be a fairly slow process. Typically, it has taken 9-12 months (and sometimes as long as 18 months) before microbial population dispersion is achieved in the target area at most sites. Total heterotrophy and chlorinated aliphatic degrader microbial data is summarized in Tables 6 and 7, respectively.

Groundwater field parameters (well depth, temperature, conductivity, pH, oxygen reduction potential, dissolved oxygen, and total dissolved solids) were recorded for each well during each sampling event. All field parameters were consistent between the baseline and quarterly monitoring sampling events with the exception of groundwater temperature, dissolved oxygen (DO), and oxidation reduction potential (ORP) concentrations. The temperature, DO, and ORP data are summarized in Tables 6, 7 and 8, respectively.

(5) Technical Analysis

The primary performance factor for assessment of the bio plug technology is an observed reduction of the VOC concentrations in the monitoring wells. A comparison of the baseline to the third and fourth quarter PCE and DCE concentrations in Tables 1 and 3, respectively, does not yield clear trends in contaminate reductions at this time. However, the fourth quarter (Sep 2013) TCE concentrations in MW 1-1 and MW 1-2 indicate a significant reduction in TCE contaminate levels (Table 2). An approximately 70 to 90 percent reduction in TCE concentrations compared to baseline concentrations was observed in these wells. No contaminate reduction trends were observed in the other VOC data. The TCE reductions in the cluster well no. 1 group of monitoring wells indicates that microbial migration between the bio plug rows is beginning to have an effect on the contaminates of concern. Clear evidence of contaminate reductions have not occurred in cluster well groups 2, 3, and 4 at this point, although the TCE concentrations in cluster well group 2 appears to be trending lower. The lack of contaminate reduction in the other areas of the test site may result from variations in the upper shallow groundwater flow rates in these areas. Groundwater flow is the primary mover for microbial dispersion from bio plugs. ABC, LLC has published a report (ref 3) on groundwater movement at LHAAP-35B(37) that identifies significant variation in groundwater flow rates and possibly direction across the test site based on historical and ATC field groundwater data collected to date. The area around cluster well group no. 1 appears to have the highest groundwater flow rates at the test site. The areas around the other cluster well groups are slower (see Table 9) with the area between cluster well groups 2 and 3 being almost stagnant.

Enhanced bioremediation as a result of the third and fourth quarters of bio plug technology operation appears to be yielding an increase in microbial populations at the monitoring wells within the test area. There is a significant increase in total heterotrophic microbial counts between the Dec 2012 and the Sep 2013 microbial counts (Table 4). The chlorinated aliphatic degrader microbial counts remain mixed during this period (Table 5). However, there appears to be a trend of increasing chlorinated aliphatic degrader populations in a few of the cluster and monitoring wells within the test area.

Groundwater temperature increased during the third and fourth quarters of system operation returning to levels observed during baseline sampling in Jul and Sep 2012 (Table 6). The DO concentrations during the third and fourth quarters of operation remained at levels observed during the second quarter monitoring (Mar 2013) and further reductions in DO were observed in a few wells in the Sep 2013 data (Table 7). As noted in Interim Report No. 1 this may be an

indication of increased oxygen utilization by microbial populations in the groundwater which appears to be supported by the microbial enumeration data. The ORP data (Table 8) collected throughout the test period indicates a general increase in ORP level with continued system operation. This data is also an indicator of the potential for increased aerobic microbial activity in the groundwater within the test area.

In summary, after approximately 11 months of operation the bio plug system appears to be increasing the rate of bioremediation within some areas of the test site. With the exception of the area between cluster well groups 2 and 3 where there is apparently stagnant groundwater flow, bio plug system operation is expected to continue to increase the rate of bioremediation within the test area. ABC, LLC is investigating possible operational changes in the area of stagnant groundwater flow to increase microbial dispersion in that area. The general level of performance observed to date correlates with the stated performance of ABC, LLC's previous applications of this technology.

(6) Bio Plug System Quarterly Operational Activities (Sep 2012 through Sep 2013)

ABS, LLC completed installation of 419 bio plugs at LHAAP-35B(37) in Sep 2012. The bio plug array design is depicted in Figure 1. A nutrient solution mixed at a concentration of 1 gallon of nutrient per 1000 gallons of water was injected daily into the bio plugs. The nutrient solution consists of nitrogen, phosphorous, carbon, and micronutrients required for microbe growth. Nutrient injection began in Oct 2012. A total of 2095 gallons of nutrient solution was injected daily into the bio plug array. This volume was evenly distributed amongst the 419 bio plugs in the bio plug array resulting in a daily injection of approximately 5 gallons per day per bio plug. The rate of nutrient injection into each bio plug is 1 gallon per hour. The nutrient solution was injected at this daily rate from the beginning of operations in Oct 2012 through mid-Jul 2013. Beginning in mid-Jul 2013 the injection rate was increased to 2933 gallons per day (approximately 7 gallons per day per bio plug) in an attempt to accelerate lateral microbial dispersion between the bio plug rows. This increase was initiated because of slower than planned microbial dispersion. In an attempt to further enhance microbial populations in the bio plugs and surrounding areas, the concentration of nutrients added to the nutrient solution was increased by 25% to 1.25 gallons of nutrient per 1000 gallons of water in Sep 2013. The nutrient solution injection rate remained constant at 2933 gallons per day to the bio plug array.

In addition to the nutrient injection, air is continuously injected into the bio plugs at a rate of 1 standard cubic feet per hour per bio plug. Air is injected to support aerobic microbial growth within each bio plug bioreactor. Air has been continuously injected at this rate since the beginning of system operation in Oct 2012.

(7) References

1. Advanced Bio Systems, LLC. Final Site Work Plan – Pilot Test of an In Situ Microbial Bioreactor Enhanced Bioremediation Technology. LHAAP-35B(37), Longhorn Army Ammunition Plant, Karnack, TX. March 29, 2012.
2. U.S. Army Aberdeen Test Center. Longhorn Army Ammunition Plant (LHAAP) Site-35B(37) In Situ Microbial Bioreactor (Bio Plug) Field Test Interim Report No.1. July 19, 2013.

3. Advanced Bio Systems, LLC. Report on the Movement of Groundwater Longhorn Army Ammunition Plant Site-35B(37) Bio Plug Pilot Study. November 5, 2013

FIGURE 1. MONITORING AND CLUSTER WELL LOCATIONS

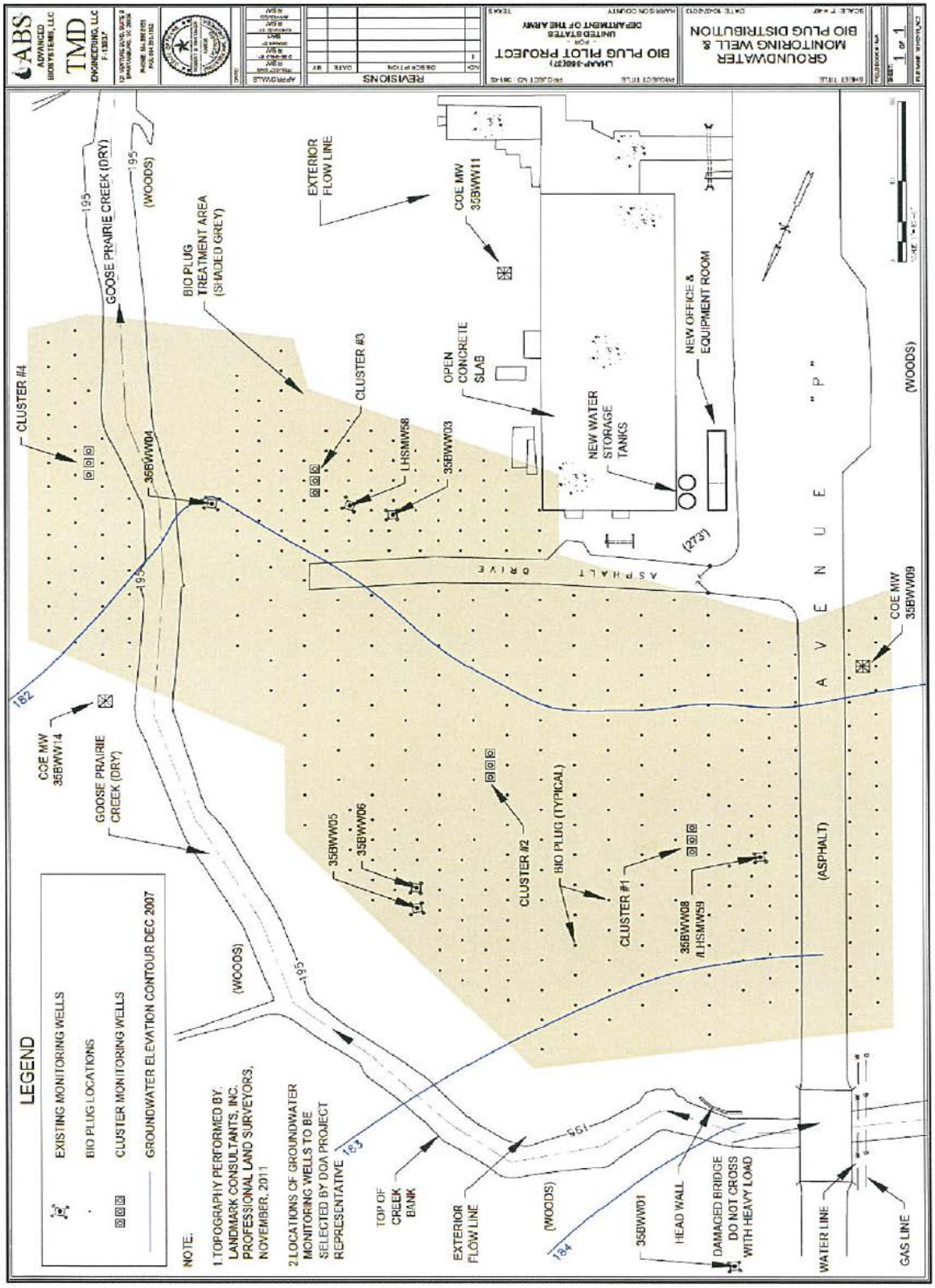

TABLE 1. MONITORING AND CLUSTER WELL TETRACHLOROETHENE DATA (µg/L)

Well ID	Jul-12	Jun-13	Sep-13
35BWW01	ND	NS	NS
35BWW02	NS	NS	NS
35BWW03	ND	ND	NS
35BWW04	48.90	50.60	68.80
35BWW05	1.09	1.23	1.56
35BWW06	ND	NS	NS
35BWW07	ND	NS	ND
35BWW08	ND	ND	ND
35BWW09	ND	ND	ND
35BWW11	ND	NS	ND
35BWW14	21.00	24.00	26.80
LHS-MW-58	36.30	25.80	29.00
MW 1-1	ND	ND	ND
MW 1-2	ND	ND	ND
MW 1-3	ND	NS	NS
MW 2-1	2.65	2.84	1.67
MW 2-2	ND	ND	ND
MW 2-3	ND	ND	ND
MW 3-1	30.10	18.70	18.70
MW 3-2	41.80	37.90	40.10
MW 3-3	60.50	40.50	36.20
MW 4-1	20.10	24.20	24.90
MW 4-2	9.60	8.25	8.76
MW 4-3	18.80	5.87	6.18

Notes:
NS = Not sampled.
ND = Non-detect.

TABLE 2. MONITORING AND CLUSTER WELL TRICHLOROETHENE DATA (µg/L)

Well ID	Jul-12	Jun-13	Sep-13
35BWW01	ND	NS	NS
35BWW02	NS	NS	NS
35BWW03	ND	ND	NS
35BWW04	8.09	11.40	13.40
35BWW05	13.50	18.80	17.30
35BWW06	ND	NS	NS
35BWW07	ND	NS	ND
35BWW08	65.70	67.50	49.6
35BWW09	55.60	43.90	53.6
35BWW11	ND	NS	ND
35BWW14	80.60	90.90	89.70
LHS-MW-58	5.17	5.02	4.99
MW 1-1	16.80	22.1	4.83
MW 1-2	8.66	9.13	0.817
MW 1-3	2.80	NS	NS
MW 2-1	4.59	3.35	2.15
MW 2-2	0.27	0.320	ND
MW 2-3	1.44	0.840	0.289
MW 3-1	2.42	2.02	2.05
MW 3-2	3.07	2.71	3.02
MW 3-3	5.99	7.64	5.50
MW 4-1	3.63	5.32	5.48
MW 4-2	4.21	4.53	6.14
MW 4-3	13.50	4.97	5.53

Notes:
NS = Not sampled.
ND = Non-detect.

TABLE 3. MONITORING AND CLUSTER WELL
1,1-DICHLOROETHENE DATA (µg/L)

Well ID	Jul-12	Jun-13	Sep-13
35BWW01	ND	NS	NS
35BWW02	NS	NS	NS
35BWW03	ND	ND	NS
35BWW04	1.67	1.78	2.25
35BWW05	ND	ND	ND
35BWW06	ND	NS	NS
35BWW07	ND	NS	ND
35BWW08	ND	ND	ND
35BWW09	ND	ND	ND
35BWW11	ND	NS	ND
35BWW14	52.30	44.70	52.80
LHS-MW-58	0.66	ND	ND
MW 1-1	ND	ND	ND
MW 1-2	ND	ND	ND
MW 1-3	ND	NS	NS
MW 2-1	ND	ND	ND
MW 2-2	ND	ND	ND
MW 2-3	ND	ND	ND
MW 3-1	ND	ND	ND
MW 3-2	1.01	0.711	0.61
MW 3-3	1.34	ND	ND
MW 4-1	0.66	0.875	0.863
MW 4-2	1.54	1.80	2.76
MW 4-3	7.58	1.64	1.64

Notes:
NS = Not sampled.
ND = Non-detect.

TABLE 4. MONITORING AND CLUSTER WELL MICROBIAL ENUMERATION TOTAL HETERROTROPH DATA (CFU/ml)

Well ID	Dec-12	Mar-13	Jun-13	Sep-13
35BWW01	NS	NS	NS	NS
35BWW02	NS	NS	NS	NS
35BWW03	0	NS	0.67	NS
35BWW04	NS	15.60	11.67	402.67
35BWW05	14.6	15.60	210.00	108.00
35BWW06	0	0.00	NS	NS
35BWW07	NS	NS	NS	115.33
35BWW08	62.5	77.65	34.00	14.00
35BWW09	NS	75.20	167.33	254.00
35BWW11	NS	NS	NS	59.33
35BWW14	80.5	80.30	44.00	90.33
LHS-MW-58	6.76	3.39	1.67	4.33
MW 1-1	18.85	24.80	21.67	75.67
MW 1-2	8.57	8.96	1.33	229.67
MW 1-3	NS	NS	NS	NS
MW 2-1	7.25	4.78	1.67	298.33
MW 2-2	0.272	0.31	43.00	253.33
MW 2-3	1.24	0.92	81.67	78.67
MW 3-1	2.43	2.57	7.33/ 2.00	65.33/ 36.67
MW 3-2	1.9	2.12	4.00	75.00
MW 3-3	1.2	5.49	5.33	200.00
MW 4-1	4.19	4.27	0.33/ 2.33	68000.00/ 49133.33
MW 4-2	4.19	3.67	20.67	57.00
MW 4-3	13.5	12.40	40.67	448.67

Notes:
NS = Not sampled.
CFU/ml = colony forming units per milliliter

TABLE 5. MONITORING AND CLUSTER WELL MICROBIAL ENUMERATION CHLORINATED ALIPHATIC DEGRADER DATA (CFU/ml)

Well ID	Dec-12	Mar-13	Jun-13	Sep-13
35BWW01	NS	NS	NS	NS
35BWW02	NS	NS	NS	NS
35BWW03	0	NS	11.33	NS
35BWW04	NS	6.67	5.00	274.33
35BWW05	5	8.67	32.00	19.67
35BWW06	0	3.33	NS	NS
35BWW07	NS	NS	NS	1.67
35BWW08	14.33	5.00/ 7.00	24.00	1.67
35BWW09	NS	1.00	50.33	2.67
35BWW11	NS	NS	NS	39.33
35BWW14	0	30.67	17.00	1.00
LHS-MW-58	0	28.00	0.33	2.67
MW 1-1	233.33/ 33.33	2.33	0.67	35.00
MW 1-2	100	341.67	8.00	12.00
MW 1-3	NS	NS	NS	NS
MW 2-1	0	8.00	0.67	4.33
MW 2-2	3333.33	5.00	7.00	67.00
MW 2-3	36.33	178.33	14.67	5.67
MW 3-1	4.00/ 0.00	76.67	0.00/ 0.33	0.00/ 3.67
MW 3-2	0	28.00	0.00	26.67
MW 3-3	0	4.67	4.33	52.00
MW 4-1	21.67	3.33	1.33/ 4.33	927.33/ 360.67
MW 4-2	3333.33	5.33/ 10.33	13.00	4.67
MW 4-3	0	15.33	34.33	194.00

Notes:
NS = Not sampled.
CFU/ml = colony forming units per milliliter

TABLE 6. MONITORING AND CLUSTER WELL
GROUNDWATER TEMPERATURE DATA (°C)

Well ID	Jul-12	Sep-12	Dec-12	Mar-13	Jun-13	Sep-13
35BWW01	20.6	NS	NS	NS	NS	NS
35BWW02	NS	NS	NS	NS	NS	NS
35BWW03	20.4	23.6	18.3	NS	23.38	NS
35BWW04	20.0	21.3	NS	19.31	21.87	19.29
35BWW05	21.0	18.7	18.5	18.61	21.04	19.89
35BWW06	20.5	19.7	17.6	13.95	NS	NS
35BWW07	25.2	20.9	NS	NS	NS	24.51
35BWW08	22.2	22.2	18.0	19.89	20.56	22.56
35BWW09	21.6	20.6	NS	18.62	20.08	20.94
35BWW11	25.8	23.0	NS	NS	NS	21.11
35BWW14	22.8	19.0	17.8	18.54	20.02	22.54
LHS-MW-58	22.0	21.3	19.4	20.14	22.95	21.52
MW 1-1	24.5	22.2	18.6	19.57	20.54	23.72
MW 1-2	22.6	22.2	15.8	16.18	20.61	30.89
MW 1-3	28.1	NS	NS	NS	NS	NS
MW 2-1	21.4	20.0	19.0	18.81	20.82	21.30
MW 2-2	23.6	21.2	18.8	19.08	21.27	23.14
MW 2-3	23.8	22.0	19.0	19.02	21.60	23.54
MW 3-1	21.2	19.1	17.6	17.88	21.73	22.33
MW 3-2	20.5	19.8	18.2	19.09	20.52	22.69
MW 3-3	22.0	21.9	17.9	19.42	23.18	26.88
MW 4-1	21.1	19.1	17.4	18.25	19.23	19.87
MW 4-2	21.9	19.4	17.8	18.66	19.44	20.84
MW 4-3	26.6	21.2	13.5	18.32	22.37	27.01

Notes:
NS = Not sampled.

TABLE 7. MONITORING AND CLUSTER WELL
GROUNDWATER DISSOLVED OXYGEN DATA (mg/L)

Well ID	Sep-12	Dec-12	Mar-13	Jun-13	Sep-13
35BWW01	NS	NS	NS	NS	NS
35BWW02	NS	NS	NS	NS	NS
35BWW03	6.76	6.08	NS	1.06	NS
35BWW04	6.90	NS	5.61	6.13	3.07
35BWW05	6.20	15.18	0.70	1.05	0.22
35BWW06	5.90	16.88	1.18	NS	NS
35BWW07	6.72	NS	NS	NS	1.95
35BWW08	5.25	5.00	1.40	1.30	0.27
35BWW09	6.55	NS	2.49	4.13	1.33
35BWW11	5.89	NS	NS	NS	3.36
35BWW14	6.14	5.67	2.39	2.87	0.79
LHS-MW-58	5.54	5.02	5.98	4.61	0.66
MW 1-1	5.23	8.56	0.69	1.21	0.38
MW 1-2	5.30	10.12	0.94	1.68	0.46
MW 1-3	NS	NS	NS	NS	NS
MW 2-1	5.80	8.14	0.42	0.84	0.66
MW 2-2	5.48	6.79	1.41	1.58	2.02
MW 2-3	5.38	3.98	0.77	1.73	1.70
MW 3-1	6.20	6.01	0.51	0.77	0.61
MW 3-2	5.93	5.43	1.07	0.74	0.74
MW 3-3	5.36	5.98	2.48	3.48	1.43
MW 4-1	6.09	NM	1.28	1.12	1.02
MW 4-2	6.00	NM	0.53	0.79	0.82
MW 4-3	6.20	NM	3.16	7.97	4.71

Notes:
1. Jul 2012 data suspect due to faulty dissolved oxygen sensor. Data not included in table.
NS = Not sampled.
NM = Not measured due to dissolved oxygen sensor failure.

TABLE 8. MONITORING AND CLUSTER WELL GROUNDWATER OXIDATION REDUCTION POTENTIAL DATA (mV)

Well ID	Jul-12	Sep-12	Dec-12	Mar-13	Jun-13	Sep-13
35BWW01	84	NS	NS	NS	NS	NS
35BWW02	NS	NS	NS	NS	NS	NS
35BWW03	-78	NM	19	NS	139.3	NS
35BWW04	41	NM	NS	81.3	130.7	198.4
35BWW05	-101	NM	-51	-69.7	-39.0	-54.6
35BWW06	7	NM	-38	-61.1	NS	NS
35BWW07	13	NM	NS	NS	NS	228
35BWW08	10	NM	155	101.3	192.3	212.8
35BWW09	14	NM	NS	-10.6	127.5	144.5
35BWW11	-114	NM	NS	NS	NS	41.5
35BWW14	-145	NM	50	76.1	74.6	157.9
LHS-MW-58	23	NM	163	67.1	159.4	165.8
MW 1-1	31	NM	78	60.8	177.4	243.6
MW 1-2	13	NM	122	78.8	115.6	289.2
MW 1-3	8	NS	NS	NS	NS	NS
MW 2-1	-103	NM	-9	38.8	146.3	170.9
MW 2-2	26	NM	107	116.2	174.7	278.4
MW 2-3	68	NM	102	90.1	174.1	275.9
MW 3-1	-87	NM	-30	-64.1	140.8	197.1
MW 3-2	66	NM	108	116.8	145.1	273.1
MW 3-3	-164	NM	-68	15.9	126.6	283.0
MW 4-1	-46	NM	-49	12.2	45.8	8.7
MW 4-2	-43	NM	25 [A]	29.3	131.7	74.8
MW 4-3	NM	NM	140	177.7	160.2	237.2

Notes:
A = ORP failed to stabilize. Value is last measurement taken prior to sampling.
NM = Not measured. ORP sensor failed.

TABLE 9. CALCULATED DISTANCE OF GROUNDWATER MOVEMENT (ref 3)

Groudwater Flow Period (days)	Cluster well groups 1 to 2 (ft)	Cluster well groups 1 to 3 (ft)	Cluster well groups 1 to 4 (ft)	Cluster well groups 2 to 3 (ft)	Cluster well groups 2 to 4 (ft)	Cluster well groups 3 to 4 (ft)
234	5.73	2.57	2.95	-0.23	1.19	2.71
365	8.94	4.01	4.60	-0.32	1.86	4.23

This Surface Water and Perimeter Well Perchlorate Data Transmittal Memorandum has been revised. The final document will be presented in Volume 1 of the 2014 Administrative Record.

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FY2013

LONGHORN ARMY AMMUNITION PLANT

Installation Action Plan

Printed 12 September 2013

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Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multiyear cleanup program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern (AOC), and proposes a comprehensive, installation-wide approach, along with the costs and schedules associated with conducting investigations and taking the necessary remedial actions (RA).

In an effort to coordinate planning information between the restoration manager, Base Realignment and Closure (BRAC), the US Army Environmental Command (USAEC), Longhorn Army Ammunition Plant (LHAAP), the executing agencies, regulatory agencies, and the public, an IAP was completed. The IAP is used to track requirements, schedules, and tentative budgets for all major Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

Acronyms

AEDB-R	Army Environmental Database- Restoration
AOC	Area of Concern
ARAR	Applicable or Relevant and Appropriate Requirements
AST	Aboveground Storage Tank
BIP	Blow in Place
Bldg	Building
BRAC	Base Realignment and Closure
BRACO	Base Realignment and Closure Office
CERCLA	Comprehensive Environmental, Response, Compensation and Liability Act
CLI	Caddo Lake Institute
CS	Confirmatory Sampling
cy	cubic yards
DD	Decision Document
DERPMIS	Defense Environmental Restoration Program Management Information System
DoD	Department of Defense
EBS	Environmental Baseline Survey
EDS	Explanation of Significant Differences
EE/CA	Engineering Evaluation/Cost Analysis
EOD	Explosive Ordnance Disposal
ER,A	Environmental Restoration, Army (formerly DERA)
ESS	Explosives Safety Submission
FFA	Federal Facility Agreement
FRA	Final Remedial Action
FS	Feasibility Study
FWS	(US) Fish and Wildlife Service
FY	Fiscal Year
GWTP	Groundwater Treatment Plan
HTRW	Hazardous, Toxic and Radioactive Waste
IAP	Installation Action Plan
ICT	Information and Communication Technologies
INF	Intermediate-Range Nuclear Force
IRA	Interim Remedial Action
IRP	Installation Restoration Program
ISC	Information Systems Command
K	thousand
LAP	Load, Assemble, and Pack
LHAAP	Longhorn Army Ammunition Plant
LTM	Long-Term Management
LUC	Land Use Controls
MC	Munitions Constituents
MEC	Munitions and Explosives of Concern
mm	millimeters
MMRP	Military Munitions Response Program
MNA	Monitored Natural Attenuation
MOA	Memorandum of Agreement

Acronyms

MRSPP	Munitions Response Site Prioritization Protocol
MSCs	Medium-Specific Concentrations
N/A	Not Applicable
NA	No Action
NFA	No Further Action
NPL	National Priorities List
ORIS	Operational Range Inventory - Sustainment
PA	Preliminary Assessment
PBA	Performance-Based Acquisition
PBC	Performance-Based Contract
PCB	Polychlorinated Biphenyls
POL	Petroleum, Oil, and Lubricants
PP	Proposed Plan
QA	Quality Assurance
Qtr	quarter
RA	Remedial Action
RA(C)	Remedial Action-Construction
RA(O)	Remedial Actions - Operation
RAB	Restoration Advisory Board
RAWP	Remedial Action Work Plan
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RIP	Remedy-in-Place
RMIS	Restoration Management Information System
ROD	ecord of Decision
RRSE	Relative Risk Site Evaluation
RTC	Response to Comments
SI	Site Inspection
TAPP	Technical Assistance for Public Participation
TBD	To be determined
TCE	Trichloroethylene
TCEQ	Texas Commission on Environmental Quality
TERC	Total Environmental Restoration Contract
TNT	Trinitrotoluene
TRC	Technical Review Committee
TWC	Texas Water Commission
TX	Texas
UEP	Unlined Evaporation Pond
ug/L	micrograms per liter
USACE	US Army Corps of Engineers
USACHPPM	US Army Center for Health, Promotion and Preventive Medicine
USAEC	US Army Environmental Command
USAEHA	US Army Environmental Hygiene Agency
USATHAMA	US Army Toxic and Hazardous Materials Agency

Acronyms

USEPA	US Environmental Protection Agency
USFWS	US Fish and Wildlife Service
USSR	Union of Soviet Socialist Republics
VOC	Volatile Organic Compound
WP	White Phosphorous
WWII	World War II
WWTP	Wastewater Treatment Plant

Installation Information

Installation Locale

Installation Size (Acreage): 8,416.00
City: Marshall
County: Harrison
State: Texas
Other Locale Information

LHAAP is located in central east Texas, in the northeast corner of Harrison County, approximately 14 miles northeast of Marshall, Texas, and 40 miles west of Shreveport, LA. The closed installation currently occupies approximately 1,400 of its original 8,416 acres between State Highway 43 and the western shore of Caddo Lake. The area surrounding LHAAP is primarily rural and consists of forest lands, the small towns of Karnack and Uncertain, Texas, Caddo Lake, and Caddo Lake State Park.

Installation Mission

The LHAAP was an Army Materiel Command installation which the Army declared excess to its needs in July 1997. While active, the installation's mission was the production of trinitrotoluene (TNT) [World War II (WWII) era only], pyrotechnic items, and rocket motors. In 2003, the BRAC Division was tasked with its disposal.

Lead Organization

Base Realignment and Closure Division

Lead Executing Agencies for Installation

US Army Corps of Engineers (USACE), Tulsa District

Regulator Participation

Federal	US Environmental Protection Agency (USEPA), Region VI
State	Texas Commission on Environmental Quality (TCEQ)

National Priorities List (NPL) Status

A score of 40 was recorded on 01-AUG-90.

Final RA(C) Completion Date: 201511

Date for NPL Deletion: TBD

Installation Restoration Advisory Board (RAB)/Technical Review Committee (TRC)/Technical Assistance for Public Participation (TAPP) Status

RAB established 2004

Installation Program Summaries

IRP

Primary Contaminants of Concern: Explosives, Metals, Munitions constituents (MC), Perchlorate, Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Affected Media of Concern: Groundwater, Sediment, Soil, Surface Water

Installation Information

MMRP

Primary Contaminants of Concern: Explosives

Affected Media of Concern: Groundwater, Soil

Cleanup Program Summary

Installation Historic Activity

The LHAAP was established in October 1942, with the primary mission of producing 2,4,6-TNT flake. Monsanto Chemical Company was the first contract operator of the plant. Production of 2,4,6-TNT continued through WWII until August 1945, when the plant went on standby status until February 1952. From then until 1956, Universal Match Corporation was the contracting operator, producing such pyrotechnic ammunition as photoflash bombs, simulators, hand signals, and tracers for 40 millimeter (mm) ammunition. With the departure of Universal Match Corporation in 1956, Thiokol assumed this responsibility, along with rocket motor production. Production of rocket motors continued to be the primary mission of LHAAP until 1965, when the production of pyrotechnic and illuminating ammunition was re-established.

Prior to 1994, operations consisted of compounding pyrotechnic and propellant mixtures, load, assemble, and pack (LAP) activities, accommodating receipt and shipment of containerized cargo, and maintenance and/or layaway of standby facilities and equipment as they apply to mobilization planning. The installation was also responsible for the static firing and elimination of Pershing I and II rocket motors in compliance with the intermediate-range nuclear force (INF) treaty in effect between the US and the former Union of Soviet Socialist Republics (USSR). In October 1996, a lease in excess of 1,000 of the 8,416 acres was granted to the Caddo Lake Institute (CLI) for biological and ecological studies by local schools and universities.

In July 1997, the plant became inactive and excess to the Army's needs. In July 1998 the Army contracted EarthTech, Inc. to liquidate all personal property and specific installed property. That contract was completed in fiscal year (FY)2000. In 1999 the Army contracted with Project Development Corporation to demolish specified structurally unsafe buildings. In 2003 the demolition of all remaining buildings began. The demolition of the power plant was completed in 2009. Only the transformers remaining, all planned demolition has taken place. A memorandum of agreement (MOA) between the Army and the US Fish and Wildlife Service (USFWS), was signed on Oct. 21, 2000 designating an area, consisting of approximately 7,200 acres, for establishment of a wildlife refuge overlay at LHAAP. In October 2002 LHAAP was transferred to the Base Realignment and Closure Office (BRACO) to manage as an excess property. In April 2004, the Army and the USFWS entered into an MOA that set forth the transfer process of LHAAP acreage. Since May 2004, approximately 7,000 LHAAP acres have been transferred to the USFWS. The USFWS manages these acres as the Caddo Lake National Wildlife Refuge within the perimeter fence of the former installation. Although the perimeter fence and gates remain functional, guards are no longer posted since the Army's security contract expired on March 14, 2007. The CLI lease with the Army was transferred to the USFWS with the affected acreage.

On Aug. 9, 1990, the LHAAP was placed on the NPL. After being listed on the NPL, LHAAP, the USEPA, and the Texas Water Commission (TWC) (now called the TCEQ) entered into a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 120 Agreement for remedial activities at LHAAP. The CERCLA Section 120 agreement, referred to as the federal facility agreement (FFA), became effective Dec. 30, 1991. The installation applied for a Resource Conservation and Recovery Act (RCRA) Part A permit.

In February 1992, a RCRA Part B permit was signed. As a result, a RCRA facility assessment (RFA) identified 57 potential sites of concern. Since that time, scrubbing of the list [removal of non-Environmental Restoration, Army (ER,A) eligible sites, redundancies, etc.] has resulted in the current Army Environmental Database - Restoration (AEDB-R) list of 50 sites. In late 2007, the USEPA Region VI clarified their view of the NPL status of LHAAP as consisting of only those sites listed in the FFA and any additional sites with significant contamination. During a meeting between the Army, the USEPA and the TCEQ held in February 2008 at TCEQ headquarters, regulators and the Army agreed on the sites that will be addressed as NPL, including those listed and those considered to be NPL-caliber. The NPL sites are LHAAP-004, LHAAP-037, LHAAP-046, LHAAP-047, LHAAP-049, LHAAP-050, LHAAP-058, and LHAAP-067 as well as the following sites which are listed in the FFA: LHAAP-001, LHAAP-011, LHAAP-012, LHAAP-013, LHAAP-014, LHAAP-016, LHAAP-017, LHAAP-018, LHAAP-024, LHAAP-027, LHAAP-029, LHAAP-032, LHAAP-054. The USEPA will continue to provide review and concurrence on documents related to these sites and will co-sign records of decision (ROD). The schedule for each of these sites will be described in this IAP, which will serve as formal documentation of the resolution between the Army and USEPA.

The non-NPL sites will be addressed through CERCLA, with RCRA issues addressed, as necessary, as applicable or relevant and appropriate requirements (ARAR), with the TCEQ as lead regulator. The USEPA will provide review; however, the decision documents (DD) will be signed by the Army alone with the TCEQ providing a letter of concurrence. In addition to the site listing of the FFA, an installation assessment by the Army in February 1980 and the RFA in April 1988 identified additional potential sites of concern. The information management system used in the early-1990s [Defense Environmental Restoration Program Management Information system (DERPMIS)] identified 59 sites at that time. In the mid-1990s, the tracking system being used at the time [the restoration management information system (RMIS)] was updated to remove duplicate sites, sites contained within other sites, sites that were not a part of the restoration program, and sites that never existed.

Cleanup Program Summary

The following sites have been transferred: LHAAP-001, LHAAP-005, LHAAP-009, LHAAP-011, LHAAP-013, LHAAP-014, LHAAP-015, LHAAP-034, LHAAP-045, LHAAP-052, LHAAP-057, LHAAP-061, and LHAAP-063. Sites LHAAP-012, -08, -32, -35/36, -35C(53), -48, -49, -55, -002-R-01 have been offered for transfer.

Installation Program Cleanup Progress

IRP

Prior Year Progress: A feasibility study (FS) completed for LHAAP-003
- A proposed plan (PP) drafted for LHAAP-003
- A PP completed for LHAAP-004
- A ROD drafted for LHAAP-004
- A remedial action work plan (RAWP) drafted for LHAAP-037
- A RAWP drafted for LHAAP-046
- A ROD drafted for LHAAP-047
- A RAWP drafted for LHAAP-050
- A RAWP drafted for LHAAP-058
- A RAWP drafted for LHAAP-067
- A five-year review report drafted

Future Plan of Action:
- Remedial action (operations) [RA(O)]/long-term management (LTM) will be implemented for LHAAP-037, LHAAP-046, LHAAP-050, LHAAP-058 and LHAAP-067
- A ROD will be completed for LHAAP-003, LHAAP-004, LHAAP-016, LHAAP-017, LHAAP-018/024, LHAAP-029, and LHAAP-047

MMRP

Prior Year Progress: A five-year review report was drafted.

Future Plan of Action: A ROD will be completed for LHAAP-001-R-01 and LHAAP-003-R-01. The LTM phase will begin.

5-Year / Periodic Review Summary

5-Year / Periodic Review Summary

Status	Begin Date	End Date	End FY
Complete	200706	200706	2007
Complete	200206	200206	2002
Underway	201203	201310	2014

Last Completed 5-Year / Periodic Review Details

Associated ROD/DD Name	Sites
BURNING GROUND #3(LHAAP-018 & LHAAP-024)	LHAAP-018, LHAAP-024
CAPPING LANDFILLS 12 & 16	LHAAP-012, LHAAP-016

ResultsInterim RODs are satisfactory

ActionsImplement Final RODs

PlansMNA

Recommendations and Implementation Plans:
All actions from the 2008 five-year review were addressed by 2010 including submission of an explanation of significant differencs (ESD) to indicate the remedy at LHAAP-18/24 was limited to the information and communication technologies (ICT) and did not include the eight extraction wells that were mentioned in the interim remedial action (IRA) ROD.

Land Use Control (LUC) Summary

LUC title: LHAAP-037 & 067 GW

Site(s): LHAAP-067

ROD/DD title: Final ROD LHAAP-035B (037) & LHAAP-067

Location of LUC

LHAAP-037 and LHAAP-067 groundwater

Land Use Restriction: Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for agricultural/irrigation purposes

Types of Engineering Controls: None

Types of Institutional Controls: Restrictions on Groundwater Withdrawal

Date in Place: 201110

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: USACE District

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: VOC

Additional Information

N/A

LUC title: LUC for LHAAP-012 Capping

Site(s): LHAAP-012

ROD/DD title: LHAAP-12 Final ROD

Location of LUC

Site LHAAP-012

Land Use Restriction: Landfill restriction - Prohibit activities that would impact the LF cap (or cover system) and drainage system, Landfill restriction - Prohibit excavation on LF cap or cover system, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for agricultural/irrigation purposes

Types of Engineering Controls: Fences, Signs

Types of Institutional Controls: Deed Restrictions, Dig Permits

Date in Place: 200706

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: USACE District

Record of LUC: Master Plan or Equivalent

Documentation Date: 200706

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: VOC

Additional Information

N/A

Parcel Summary

Summary of Parcel Prioritization and Transfer Strategy

Parcel Name: **Burning Ground (FWS)**
Parcel Size: 380.00
Associated Sites: LHAAP-017, LHAAP-016, LHAAP-024, LHAAP-018
Transfer Date: 201307
Current Land Use: Other (under remediation)
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Name: **Debris Landfill**
Parcel Size: 13.00
Associated Sites:
Transfer Date: 201207
Current Land Use: Industrial
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: N/A
Other Issues Affecting Transfer: N/A

Parcel Name: **East FIA I (FWS)**
Parcel Size: 182.00
Associated Sites:
Transfer Date: 200708
Current Land Use: Recreational
Future Land Use: Other (N/A)
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Summary

Parcel Name: **East FIA II(FWS)**
Parcel Size: 175.00
Associated Sites: PBC Longhorn, LHAAP-035
Transfer Date: 200909
Current Land Use: Industrial
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Name: **Fire House (FWS)**
Parcel Size: 2.98
Associated Sites:
Transfer Date: 200705
Current Land Use: Recreational
Future Land Use: Other (N/A)
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Name: **Ground Signal Test (FWS)**
Parcel Size: 80.00
Associated Sites: LHAAP-003-R-01
Transfer Date: 201301
Current Land Use: Other (Under remediation)
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Summary

Parcel Name: **LANDFILL 12 (FWS)**
Parcel Size: 51.00
Associated Sites: LHAAP-012
Transfer Date: 201210
Current Land Use: Industrial
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: Land Use Control/maintenance costs

Parcel Name: **Pistol Range (FWS)**
Parcel Size: 1.00
Associated Sites: PBC Longhorn
Transfer Date: 201210
Current Land Use: Other (under remediation)
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Name: **Production Area II**
Parcel Size: 467.00
Associated Sites: PBC Longhorn
Transfer Date: 201302
Current Land Use: Other (Under remediation)
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Summary

Parcel Name: **Production Area Ia (FWS)**
Parcel Size: 456.72
Associated Sites: PBC Longhorn, LHAAP-035
Transfer Date: 200708
Current Land Use: Residential
Future Land Use: Other (N/A)
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Name: **Production Area Ib (FWS)**
Parcel Size: 107.59
Associated Sites: PBC Longhorn, LHAAP-035
Transfer Date: 200701
Current Land Use: Recreational
Future Land Use: Other (N/A)
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Name: **South Test/Bomb (FWS)**
Parcel Size: 72.00
Associated Sites: LHAAP-001-R-01
Transfer Date: 201301
Current Land Use: Other (Under remediation)
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Summary

Parcel Name: **Static Test (FWS)**
Parcel Size: 55.00
Associated Sites:
Transfer Date: 201210
Current Land Use: Other (Under remediation)
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

Parcel Name: **Y Area (FWS)**
Parcel Size: 17.00
Associated Sites:
Transfer Date: 201210
Current Land Use: Other (Under remediation)
Future Land Use: Recreational
Encumbrances: N/A
Leases/Permits/Licenses: N/A
Transfer Strategy: Transfer to Other Federal Agencies
Recipient Organization: USFWS
Other Issues Affecting Transfer: N/A

LONGHORN ARMY AMMUNITION PLANT

Non-BRAC Excess
Installation Restoration Program

IRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 54/10

Installation Site Types with Future and/or Underway Phases

2 Above Ground Storage Tank
(LHAAP-049, LHAAP-067)
3 Burn Area
(LHAAP-001, LHAAP-017, LHAAP-018)
1 Contaminated Ground Water
(PBC Longhorn)
1 Disposal Pit/Dry Well
(LHAAP-063)
5 Landfill
(LHAAP-011, LHAAP-012, LHAAP-016, LHAAP-019, LHAAP-057)
1 Oil Water Separator
(LHAAP-056)
6 Spill Site Area
(LHAAP-051, LHAAP-052, LHAAP-058, LHAAP-066, LHAAP-070, LHAAP-071)
14 Storage Area
(LHAAP-002, LHAAP-003, LHAAP-006, LHAAP-007, LHAAP-015, LHAAP-034, LHAAP-036, LHAAP-037, LHAAP-045, LHAAP-059, LHAAP-060, LHAAP-064, LHAAP-065, LHAAP-068)
1 Surface Impoundment/Lagoon
(LHAAP-024)
2 Underground Storage Tank
(LHAAP-035, LHAAP-069)
4 Waste Lines
(LHAAP-029, LHAAP-046, LHAAP-047, LHAAP-050)
4 Waste Treatment Plant
(LHAAP-004, LHAAP-008, LHAAP-055, LHAAP-061)

Most Widespread Contaminants of Concern

Explosives, Metals, Munitions constituents (MC), Perchlorate, Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Media of Concern

Groundwater, Sediment, Soil, Surface Water

Completed Remedial Actions (Interim Remedial Actions / Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY	Cost
LHAAP-018	BURNING GROUND/WASHOUT POND(SWMU 18)	IRA	REMOVAL	1997	TBD
LHAAP-024	FORMER UNLINED EVAP POND (SWMU 24)	IRA	CAPPING	1997	TBD
LHAAP-024	FORMER UNLINED EVAP POND (SWMU 24)	IRA	REMOVAL	1997	TBD
LHAAP-012	ACTIVE LANDFILL (SWMU 12)	IRA	CAPPING	2005	$5.0 K
LHAAP-016	OLD LANDFILL (SWMU 16)	IRA	CAPPING	2005	$14.0 K
LHAAP-012	ACTIVE LANDFILL (SWMU 12)	FRA	NATURAL ATTENUATION	2007	TBD
LHAAP-012	ACTIVE LANDFILL (SWMU 12)	FRA	INSTITUTIONAL CONTROLS	2007	TBD
LHAAP-035	SUMPS (145) VARIOUS	FRA	WASTE REMOVAL - SOILS	2009	TBD
LHAAP-004	LHAAP PILOT WASTEWATER TREATMENT PLANT	IRA	WASTE REMOVAL - SOILS	2011	TBD
LHAAP-018	BURNING GROUND/WASHOUT POND(SWMU 18)	IRA	GROUND WATER TREATMENT	2011	TBD

IRP Summary

Completed Remedial Actions (Interim Remedial Actions / Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY	Cost
LHAAP-024	FORMER UNLINED EVAP POND (SWMU 24)	IRA	GROUND WATER TREATMENT	2011	TBD
LHAAP-046	PLANT 2 AREA	FRA	NATURAL ATTENUATION	2013	TBD
LHAAP-046	PLANT 2 AREA	FRA	INSTITUTIONAL CONTROLS	2013	TBD
LHAAP-067	ABOVE GROUND STORAGE TANK	FRA	INSTITUTIONAL CONTROLS	2013	TBD
LHAAP-067	ABOVE GROUND STORAGE TANK	FRA	NATURAL ATTENUATION	2013	TBD

Duration of IRP

Year of IRP Inception: 197906

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201511/204309

Date of IRP completion including Long Term Management (LTM): 204309

IRP Contamination Assessment

Contamination Assessment Overview

In early 2008, the installation-wide ecological risk assessment was completed. In 2012 it was discovered that explosives analysis data which had been deemed unusable was inadvertently included in the ecological risk assessment. The impact of removing the unusable data from the ecological risk assessment will be evaluated, additional samples will be collected and an ecological risk assessment addendum will be completed in 2012. Work currently being conducted under a performance-based contract (PBC) includes conducting additional sampling activities at several sites and finalizing outstanding FSs andengineering evaluations/cost analyses (EE/CAs), with PPs and a ROD to follow during calendar year 2012. Regulatory concurrence was obtained for reports recommending no action for these 11 sites: LHAAP-06, LHAAP-07, LHAAP-23, LHAAP-35, LHAAP-36, LHAAP-51, LHAAP-55, LHAAP-60, LHAAP-64, LHAAP-66, and LHAAP-68.

In 2008, DDs were signed for sites LHAAP-6, 7, 48, 51, 55, 60, 64, 66, and 68. Also in 2008 the FSs were completed for all applicable total environmental restoration contract (TERC) sites including the three TERC NPL sites (LHAAP-32, LHAAP-37, and LHAAP-67) and a ROD document was signed for TERC NPL site LHAAP-32 in 2008. No action DDs were signed in 2008 for the remaining TERC sites (LHAAP-8, LHAAP-48, LHAAP-53, and LHAAP-59) and in 2010 the RODs were signed for LHAAP-37, LHAAP-46, LHAAP-49, LHAAP-50, LHAAP-58, LHAAP-67 and Pistol Range. In 2012, DDs will be completed for LHAAP-05, -09, -15, -19, -34, -52, -56, -57, -61, -63, -65, -69, -70, & -71. In 2012, the following IRP sites were added to AEDB-R: LHAAP-46, -47, -49, -56, -59, & -65.

Sediment samples collected by the Army from Caddo Lake near the mouths of two branches of Goose Prairie Creek indicated elevated lead and mercury concentrations. The sampling locations are outside of the installation boundary. In 2004, an investigation of contaminants in fish tissue from three Caddo Lake sites, one of which is upgradient at Clinton Lake, was funded by the USEPA Region 6 and performed by the TCEQ Region 5. It concluded that mercury was present at elevated levels from all three sites, dioxin was also present, but highest at Clinton Lake (a lake upstream from LHAAP), and pesticides, polychlorinated biphenyls (PCB) and perchlorate were not detected in either edible fish fillets or whole fish.

Approximately 7,000 acres of the plant have transferred to the USFWS and are being operated as the Caddo Lake National Wildlife Refuge. The remaining acreage is also expected to transfer to the USFWS as restoration activities are completed.

Cleanup Exit Strategy

As RODs are finalized and remedial designs (RDs) and RAs are implemented, long-term RA(O) and monitoring will continue until ramp-down.

Ramp-down/exit strategies at the sites will continue to be based on human and environmental exposure.

IRP Previous Studies

	Title	Author	Date
1979			
	Assessment of Contaminant Migration, Longhorn Army Ammunition Plant	Robert H. Balter Co	APR-1979
1980			
	Installation Assessment of Longhorn Army Ammunition Plant, Report No. 150	U.S. Army Toxic and Hazardous Materials Agency	FEB-1980
	Land Disposal Study No. 38-26-0104-81, LHAAP, 23 January - 8 February 1980	USAEHA	MAY-1980
1981			
	Wastewater Engineering Special Study No. 32-62-0182-82	Wastewater Engineering Special Study No. 32-62-0182-82	SEP-1981
1983			
	Phase II, Hazardous Waste Management Special Study No. 39-26-0147-83, DARCOM Open-Burning/Open-Detonation Grounds Evaluation, LHAAP, 31 July - 3 August 1981	USAEHA	SEP-1983
1984			
	Closure of Unlined Evaporation Pond	Kindle, Stone and Associates	JUN-1984
	Longhorn Army Ammunition Plant Contamination Survey, Contract # DAAA09-78-C-3004,	Environmental Protection Systems, Inc	JUN-1984
1986			
	Closure Report, Unlined Evaporation Pond, Longhorn Army Ammunition Plant	Army Corps of Engineers, Tulsa	JUN-1986
1994			
	Interim Risk Assessment for Burning Ground 3 & Unlined Evaporation Pond Sites (18 & 24)	Army Corps of Engineers, Tulsa	JAN-1994
	Soil and Groundwater Background Concentration Study	Army Corps of Engineers, Tulsa	MAY-1994
	Remedial Investigation /Feasibility Study Report for Areas 13 & 14	Army Corps of Engineers, Tulsa	JUN-1994
	Draft Final Workplan Addendum Soil and Groundwater Background Concentration Study	Army Corps of Engineers, Tulsa	JUN-1994
1995			
	Final Soil Background Concentration Report (Revised)	Army Corps of Engineers, Tulsa	MAR-1995
	Groundwater Background Concentration Report	Army Corps of Engineers, Tulsa	MAY-1995
	Final HydroGeologic Assessment Report	Army Corps of Engineers, Tulsa	MAY-1995
	Final Prop Plan of Action for Sites 13 & 14	Army Corps of Engineers, Tulsa	JUN-1995
	Groundwater Sampling Results-May 95, Interim Remedial Action-Phase III, Burning Ground 3 and UEP, LHAAP 18 & 24	Army Corps of Engineers, Tulsa	JUN-1995
	Remedial Investigation/Feasibility Study Report for Sites 13 & 14	Army Corps of Engineers, Tulsa	JUN-1995
	Final Record of Decision for Early Interim Remedial Action at Landfill Sites 12 & 16	Army Corps of Engineers, Tulsa	JUL-1995
1996			

IRP Previous Studies

	Title	Author	Date
1996			
	Final Work Plan for Phase III Interim Remedial Action at Burning Ground 3	Army Corps of Engineers, Tulsa	JAN-1996
	Group 4 Baseline Risk Assessment Work Plan	Army Corps of Engineers, Tulsa	FEB-1996
	Final Project Work Plans, Interim Remedial Action Landfills 12 & 16 Caps	Army Corps of Engineers, Tulsa	JUN-1996
	Group 4 Sumps Groundwater Monitoring Quarterly Report	Army Corps of Engineers	JUN-1996
	Draft Final Design Analysis Report for the Site 16 Time Critical Removal Action	Army Corps of Engineers	JUN-1996
	Draft Final Comprehensive Chemical Data Acquisition Plan for the RI/FS	Army Corps of Engineers, Tulsa	JUL-1996
	Draft Final Field Summary Report for the Phase II, Group 2 Sites Remedial Investigation	Army Corps of Engineers, Tulsa	JUL-1996
	Treatment Simulation and Toxicity Testing Results of Site 16 Groundwater	Army Corps of Engineers, Tulsa	AUG-1996
	Final Project Construction Drawings, Interim Remedial Action, Landfill 12 & 16 Caps	Army Corps of Engineers, Tulsa	AUG-1996
1997			
	Final Remedial Investigation Report Group 1 Sites (Sites 1, 11, 27, and XX) and Vol. 2 Baseline Risk Assessment	Army Corps of Engineers, Tulsa	APR-1997
1998			
	Final Record of Decision for Early Interim Remedial Action at Group 1 Sites	Army Corps of Engineers, Tulsa	FEB-1998
	Group 2 Final Workplan	Army Corps of Engineers, Tulsa	MAR-1998
	Environmental Baseline Study	Army Corps of Engineers, Tulsa	APR-1998
	Group 4 Final Workplan	Army Corps of Engineers, Tulsa	JUL-1998
2000			
	Site 16 Risk Assessment	Army Corps of Engineers, Tulsa	MAR-2000
	Hazardous and Medical Waste Study - Response Complete Verification and Relative Risk Site Evaluation for the Longhorn Army Ammunition Plant	USACHPPM	JUL-2000
	Final Site 16 Remedial Investigation Report	Army Corps of Engineers, Tulsa	OCT-2000
2001			
	Final Remedial Investigation Report for Group 2 Sites	Jacobs Engineering Group, Inc	APR-2001
	Baseline Risk Assessment: Human Health for Site 16 Landfill Remedial Investigation and Feasibility Study	Jacobs Engineering Group, Inc	JUN-2001
	Final Ecological Risk Assessment: Supplement to Site 16 Landfill Remedial Investigation Report	Jacobs Engineering Group, Inc	OCT-2001
2002			
	Final Group 4 Sites Remedial Investigation Report (Sites 35A, 35B, 46, 47, 48, 50, 60, and Goose Prairie Creek)	Jacobs Engineering Group, Inc	JAN-2002
	Final Group 4 Sites Remedial Investigation Addendum (Sites 04, 08, 67, and Hydrocarbon Study)	Jacobs Engineering Group, Inc	FEB-2002
	Final Group 2 Sites Remedial Investigation Report Addendum (Site 49)	Jacobs Engineering Group, Inc	FEB-2002

IRP Previous Studies

	Title	Author	Date
2002			
	Final Feasibility Study for Site 16	Jacobs Engineering Group, Inc	MAR-2002
	Final Five-Year Review for Sites 18 & 24 (Burning Ground No. 3), Site 16 (Old Landfill), and Site 12 (Sanitary Landfill)	Complete Environmental Service	AUG-2002
	Group 2 Sites Baseline Human Health and Screening Ecological Risk Assessment (Sites 12, 17, 18/24, 29, 32, 49, Harrison Bayou, and Caddo Lake)	Jacobs Engineering Group, Inc	AUG-2002
2004			
	Final Installation-Wide Background Study Workplan	Shaw Environmental and Infrastructure	JAN-2004
	Final Groundwater Data Gaps Investigation Workplan (Groups 2 and 4)	Shaw Environmental and Infrastructure	FEB-2004
	Final Technical Memorandum: Modeling Approach for Derivation of Soil and Groundwater Concentrations Protective of Surface Water and Sediment	Shaw Environmental and Infrastructure	MAR-2004
	Final Sediment Sampling Report for Caddo Lake and Clinton Lake	Shaw Environmental and Infrastructure	APR-2004
	Final Environmental Condition of Property I	Shaw Environmental and Infrastructure	MAY-2004
	Final Background Soil Study Report	Shaw Environmental and Infrastructure	JUL-2004
	Final Evaluation of LHAAP-45 Surface Soil Analytical Data	Shaw Environmental and Infrastructure	SEP-2004
	Final Groundwater Data Gaps Investigation Workplan (Groups 2 and 4), Addenda 1 and 2	Shaw Environmental and Infrastructure	SEP-2004
	Final Environmental Condition of Property II	Army Corps of Engineers, Tulsa	NOV-2004
2005			
	Final Site 12 Feasibility Study	Shaw Environmental and Infrastructure	JAN-2005
	Final Environmental Site Assessment Phase I and II Report	Plexus Scientific Corporation	FEB-2005
	Final Feasibility Report for Site 12 Addendum (Revision 2)	Shaw Environmental and Infrastructure	MAR-2005
	Final Proposed Plan for Landfill 12 (LHAAP-12),	Shaw Environmental and Infrastructure	MAR-2005
	Final Project Report Plant-Wide Perchlorate Investigation	Solutions To Environmental Problems (STEP)	APR-2005
	Final Site Inspection Report for the Military Munitions Response Program	Engineering-Environmental Management, Inc	JUN-2005
	Final Feasibility Study for LHAAP-67 (Aboveground Storage Tank Farm),	Shaw Environmental and Infrastructure	AUG-2005
	Final Feasibility Study for LHAAP-35B (37) (Chemical Laboratory)	Shaw Environmental and Infrastructure	OCT-2005
	Final Site Evaluation Report for LHAAP-32 (Former Waste TNT Disposal Plant)	Shaw Environmental and Infrastructure	NOV-2005
2006			
	Final Installation-Wide Work Plan	Shaw Environmental and Infrastructure	JAN-2006
	Decision Documentation for LHAAP-03 (Wastewater	Shaw Environmental and	JAN-2006

IRP Previous Studies

	Title	Author	Date
2006			
	Collection At Paint Shop), LHAAP-06 (Building 54F), and LHAAP-23 (Building 707-C Storage Area for PCBs),	Infrastructure	
	Final Work Plan for Engineering Evaluation / Cost Analysis for Military Munitions Response Program	CAPE	MAR-2006
	Final Background Surface Water and Sediment Study Report	Shaw Environmental and Infrastructure	JUL-2006
	Draft Final Proposed Plan, LHAAP-37 & 67	Shaw Environmental and Infrastructure	JUL-2006
	Final Record of Decision, LHAAP-12	US Army	JUL-2006
	Remainder of PBC docs that have been submitted :	Workplans; Summary report for 46 and pistol range (Draft); Evaluation Report for 02 (Draft)	SEP-2006
	Draft Final Site Evaluation Report, LHAAP-02; Work Plan Addenda for LHAAP-04, 07, 46, 51, 35/36, 29, Pistol Range, and Chromium Specification;	Shaw Environmental and Infrastructure	SEP-2006
	Draft Final Evaluation of Monitored Natural Attenuation, LHAAP-12, 37 & 67	Shaw Environmental and Infrastructure	DEC-2006
2007			
	Final Groundwater Monitoring Report Sites 12 and 16 (spring 2003, spring 2004 and winter 2004)	ALL Consulting	JAN-2007
	Final Modeling Report,Derivation of Soil and Groundwater Concentrations Protective of Surface Water and Sediment, Rev. 01	Shaw Environmental and Infrastructure	FEB-2007
	Final LHAAP-12 Well Abandonment and Installation Report Groundwater, Data Gaps Investigation Groups 2 and 4	Shaw Environmental, Inc.	APR-2007
	Final Site Evaluation Report, LHAAP-48 & 53	Shaw Environmental and Infrastructure	APR-2007
	Final Addendum 11 Monitored Natural Attenuation Sampling LHAAP-16, -17, -29, -46, -47, -50, 35A(58), Final Installation-Wide Work Plan	Shaw Environmental, Inc.	MAY-2007
	Legal Notice - Industrial Solid Waste Notice of Land Use Controls at LHAAP-12	Rose Zeiler, LHAAP Site Manager	JUN-2007
	Final Results of Modeling for Natural Attenuation of Trichloroethene at LHAAP-12	Shaw Environmental, Inc.	JUN-2007
	Evaluation of Perimeter Well Data for Use as Groundwater Background	Shaw Environmental, Inc.	JUN-2007
	Final Natural Attenuation Evaluation LHAAP-12, LHAAP-35B(37) and LHAAP-67 (Report and Appendix A)	Shaw Environmental, Inc.	JUN-2007
	Remedial Design Addendum Landfill 12 (LHAAP-12)	Shaw Environmental, Inc.	JUN-2007
	Baseline Ecological Risk Assessment Surface Water Sampling Plan for Goose Prairie Creek, Revision 01	Shaw Environmental, Inc.	JUL-2007
	Final Results of Modeling for Natural Attenuation of Chlorinated Solvents in Groundwater at LHAAP-35B(37) & 67	Shaw Environmental, Inc.	JUL-2007
	Final LHAAP-59 Site Investigation Report	Shaw Environmental, Inc.	AUG-2007
	Draft Final Second Five year review Report, LHAAP-12, 16, 18 & 24	Shaw Environmental, Inc.	AUG-2007
	Memorandum: Supplemental Groundwater Activities at LHAAP-37	Shaw Environmental, Inc.	SEP-2007

IRP Previous Studies

	Title	Author	Date
2007			
	Final Landfill 12 (LHAAP-12) Operating Properly and Successfully Demonstration Report	Shaw Environmental, Inc.	SEP-2007
	Memorandum: Analysis of Soil Samples Collected from LHAAP-59 on September 14, 2007	Shaw Environmental, Inc.	OCT-2007
	Final Installation-Wide Baseline Ecological Risk Assessment Vols. I & II	Shaw Environmental, Inc.	NOV-2007
	Final Site Investigation Report: LHAAP-06, 07, 51, 55, 64, 66 and 68 (rev 1)	Shaw Environmental, Inc.	DEC-2007
2008			
	Final Proposed Plan, LHAAP-08	Shaw Environmental, Inc.	JAN-2008
	Final Data Evaluation Report Chemical Concentrations in soil Samples Associated with LHAAP-35/36 Sumps	Shaw Environmental, Inc.	JAN-2008
	Final Proposed Plan, LHAAP-32	Shaw Environmental, Inc.	JAN-2008
	Final Proposed Plan, LHAAP-48 & 53	Shaw Environmental, Inc.	JAN-2008
	Draft Final LHAAP-32 Record of Decision	Shaw Environmental, Inc.	MAR-2008
	Draft Final LHAAP-08, 48 & 53 Decision Document	Shaw Environmental, Inc.	MAR-2008
	Final Decision Document, LHAAP-6, 7, 51, 55, 64, 66 and 68	Shaw Environmental, Inc.	JUL-2008
	Final LHAAP-32 Record of Decision	Shaw Environmental, Inc.	AUG-2008
	Final LHAAP-59 Decision Document	Shaw Environmental, Inc.	SEP-2008
	Final Five-Year Review Second Five-Year Revise Report for LHAAP-12, 16 and 18/24	Shaw Environmental Inc.	SEP-2008
	Final LHAAP-60 Decision Document	Shaw Environmental, Inc.	OCT-2008
	Final LHAAP-8, 48, 53 and 002-R Decision Document	Shaw Environmental, Inc.	NOV-2008
2009			
	Draft Site Evaluation Report and Soil Removal Report for LHAAP-49	Shaw Environmental, Inc.	JAN-2009
	Draft Final LHAAP-37/67 Record of Decision	Shaw Environmental, Inc.	JAN-2009
	Final Site Investigation Report, LHAAP-2	Shaw Environmental, Inc.	JAN-2009
	Final Engineering Evaluation/Cost Analysis, LHAAP-4	Shaw Environmental, Inc.	MAR-2009
2010			
	Final Proposed Plan, LHAAP-46	Shaw Environmental, Inc.	JAN-2010
	Final Proposed Plan, LHAAP-35A(58)	Shaw Environmental, Inc.	JAN-2010
	Final Proposed Plan, LHAAP-50	Shaw Envronmental, Inc.	JAN-2010
	Final Proposed Plan, LHAAP-49	Shaw Environmental, Inc.	JAN-2010
	Final Proposed Plan, LHAAP-17	Shaw Environmental, Inc.	MAY-2010
	Final Record of Decision, LHAAP-37/67	US Army	JUN-2010
	Final Decision Document, LHAAP-02	Shaw Environmental, Inc.	JUL-2010
	Final Record of Decision, LHAAP-49	Shaw Environmental, Inc.	AUG-2010
	Final Record of Decision, LHAAP-46	Shaw Environmental, Inc.	SEP-2010
	Final Record of Decision, LHAAP-50	Shaw Environmental, Inc.	SEP-2010
	Final Record of Decision, LHAAP-35A(58)	Shaw Environmental, Inc.	SEP-2010
	Final Proposed Plan, LHAAP-16	Shaw Environmental, Inc.	SEP-2010

IRP Previous Studies

	Title	Author	Date
2010			
	Final Decision Document, LHAAP-35/36	Shaw Environmental, Inc.	OCT-2010
2011			
	Final Proposed Plan, LHAAP-29	Shaw Environmental, Inc.	MAR-2011
	Final MC Summary Report, LHAAP-001-R-01 & LHAAP-003-R-01	Shaw Environmental, Inc.	JUN-2011
	Final Proposed Plan, LHAAP-001-R-01 & LHAAP-003-R-01	Shaw Environmental, Inc.	JUN-2011
	Final Feasibility Study, LHAAP-47	Shaw Environmental, Inc.	JUL-2011
	Final Remedial Design, LHAAP-35B(37) & LHAAP-67	US Army Corps of Engineers, Tulsa District	AUG-2011
	Final Remedial Design, LHAAP-46	Shaw Environmental, Inc.	SEP-2011
	Final Remedial Design, LHAAP-50	Shaw Environmental, Inc.	SEP-2011
	Final Remedial Design, LHAAP-35A(58)	Shaw Environmental, Inc.	SEP-2011

LONGHORN ARMY AMMUNITION PLANT

Non-BRAC Excess

Installation Restoration Program
Site Descriptions

Site ID: LHAAP-001
Site Name: INERT BURNING GROUNDS (SWMU 1)

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: LOW

Phases	Start	End
PA	197906	198406
SI	197906	198406
RI/FS	199008	199801
LTM	201201	204309

RIP Date: N/A

RC Date: 199801

SITE DESCRIPTION

A no action ROD was signed by the USEPA in February 1998; the site is closed and suitable for non-residential use. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required and will continue.

Site ID: LHAAP-002
Site Name: VACCUM TRUCK OVERNITE PARKING LOT

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: NOT EVALUATED

Phases	Start	End
PA	197906	198705
LTM	201201	204309

RIP Date: N/A

RC Date: 198705

SITE DESCRIPTION

A notification [not a remedy or land use control (LUC)] has been filed in Harrison County, Texas (TX) stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required. Five-year review costs are captured with LHAAP-35A(58. Five-year review costs because this site falls within the boundary of LHAAP-35A(58).

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews are required and continue.

Site ID: LHAAP-003
Site Name: BUILDING 722-PAINT SHOP

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: MEDIUM

Contaminants of Concern: Metals

Media of Concern: Soil

Phases	Start	End
PA	197906	198705
SI	200710	200909
RI/FS	200909	201412
RD	201210	201504
RA(C)	201210	201506

RIP Date: N/A

RC Date: 201506

SITE DESCRIPTION

LHAAP-03 was a waste collection site outside of the paint shop at Building 722-P. Building 722-P was used for paint spraying and polyurethane spray coating of various items. Heavy metal-based primers, other waste solvents and contaminated rags were collected in a 55-gallon drum on a gravel pad in an open-sided shed.

The site investigation report for LHAAP-03 was completed in August 2009. The site investigation identified soil contaminated with metals exceeding medium-specific concentrations (MSCs). A remedial investigation (RI)/FS was finalized to evaluate removal action alternatives for the metals-contaminated soil at LHAAP-03. A ROD is delayed until dispute is resolved with EPA. The RD and soil removal action will also be covered under the PBC. Five-year review costs for this site will be captured with LHAAP-35A(58) five-year review costs because this site falls within the boundary of LHAAP-35A(58).

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy being considered for this site is excavation and off-site disposal. Tasks to be completed before the PBA ends are completion of primary documents (ROD and RD), and accomplishment of remedy-in-place (RIP). At this time, it is expected that the post-PBA LTM will involve five-year reviews, which will be addressed as part of the remedial action for LHAAP-35A(58).

Site ID: LHAAP-004
Site Name: LHAAP PILOT WASTEWATER TREATMENT PLANT

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: MEDIUM

Contaminants of Concern: Perchlorate

Media of Concern: Groundwater

Phases	Start	End
PA	197906	198705
RI/FS	201112	201409
RD	201201	201502
IRA	200908	201108
RA(C)	201201	201509
RA(O)	201201	201709
LTM	201709	204309

RIP Date: 201509

RC Date: 201709

SITE DESCRIPTION

The LHAAP Pilot wastewater plant was closed under RCRA guidelines in November 1997. The installation-wide baseline ecological risk assessment in 2007 did not identify any potential risk to ecological receptors. Additional investigations after the risk assessment found unacceptable levels of mercury in soil, and perchlorate, an emerging contaminant, in soil at levels that could potentially migrate into the groundwater. A soil removal action was recommended in the 2009 EE/CA for LHAAP-04. The soil removal was performed, and is documented in the final completion report, non-time critical removal action at LHAAP-04. As part of the removal action, a well was installed to sample groundwater beneath the backfilled excavation area. The results indicated that perchlorate was present in the groundwater at a concentration that exceeded the TCEQ groundwater industrial use value for perchlorate. The FS evaluating remedial alternatives for LHAAP-04 was finalized in August 2012. The RAs for this site have been funded under an existing contract. The ROD is delayed until dispute is resolved with EPA.

CLEANUP/EXIT STRATEGY

This site is being addressed under a performance-based acquisition (PBA) through September 2017. Tasks to be completed before the PBA ends are completion of primary documents (ROD and RD), and accomplishment of RIP. The FS was completed in 2012. The remedy being considered for this site is: in situ bioremediation and monitored natural attenuation (MNA) for groundwater, and LTM. The final remedy has not been selected yet for this site. At this time, it is expected that the post-PBA long-term RA(O) and LTM will involve MNA and LUC.

Site ID: LHAAP-006
Site Name: BUILDING 54F SOLVENT

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: NOT EVALUATED

Phases	Start	End
PA	197906	198705
LTM	201201	204309

RIP Date: N/A

RC Date: 198705

SITE DESCRIPTION

An NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-007
Site Name: BUILDING 50G DRUM PROCESSING

STATUS

Parcel: NONE

Regulatory Driver: RCRA

RRSE:

Phases	Start	End
RFA	197906	198705
LTM	201201	204309

RIP Date: N/A

RC Date: 198705

SITE DESCRIPTION

An NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-008
Site Name: SEWAGE TREATMENT PLANT

STATUS

Parcel: NONE

Regulatory Driver: RCRA

RRSE:

Phases	Start	End
RFA	197906	198705
LTM	201201	204309

RIP Date: N/A

RC Date: 198705

SITE DESCRIPTION

The site has been cleaned under RCRA guidelines. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-011
Site Name: SUS TNT BURIAL SITE AT AVE P&Q(SWMU 11)

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: LOW

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199008	199801
LTM	201201	204309

RIP Date: N/A

RC Date: 199801

SITE DESCRIPTION

An NFA ROD was signed by the USEPA by February 1998 The site is closed and suitable for industrial use. A five-year review report in the form of a memorandum report stating the use of the site remains industrial will be required for internal Army records.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-012
Site Name: ACTIVE LANDFILL (SWMU 12)

STATUS

Parcel: LANDFILL 12 (FWS) (51 acres)

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199008	200607
RD	200509	200706
IRA	199509	200509
RA(C)	200509	200706
RA(O)	200509	201709
LTM	201709	204309

RIP Date: 200706

RC Date: 201709

SITE DESCRIPTION

Landfill 12 (previously called the Active Landfill), consisting of seven acres, was used for the disposal of nonhazardous industrial waste. The landfill had been used intermittently since 1963. Continuous use of the landfill began around 1978. Although the back section had been closed, the front section of the landfill continued to be used until its closure in March 1994. Site inspections (SI) conducted in 1993 concluded that an early IRA (landfill cap) was necessary to reduce further contamination to the groundwater. In 1997 the cap was completed, using treated soils from LHAAP-18 as subgrade fill. Cap maintenance started in 1998, and in 2002 the first five-year review was completed. The second five-year review was completed in 2008.

In 2002 the RI was completed. Groundwater analysis showed that some metals, chlorides, VOC, explosive compounds, and low levels of perchlorate were present. Surface water and sediment sample analysis showed similar contamination. Low levels of perchlorate were also detected in the soils. In three groundwater sampling rounds conducted in February 2003, February 2004, and December 2004, perchlorate was not detected with reporting limits of four micrograms per liter (ug/L) in the first two rounds, and only detected twice when a method with a lower reporting limit (0.2 ug/L) was used. Chromium in groundwater is now believed to be related to stainless steel well casings. In January 2006 the 12 wells with stainless steel casings and screen were removed. In 2006, five new wells were installed for long-term monitoring using polyvinyl chloride casing and screen. Results of subsequent groundwater sampling supported the postulation that the stainless steel casing in the monitoring wells was the source of the chromium.

In 2005 the FS was finalized. The recommended final remedy is MNA with LUCs consisting of cap protective provisions and groundwater restrictions. In August 2006 sampling to support MNA began. The PP addressed human and ecological risk. The ROD has been signed (July 2006), and in June 2007 the RD addendum was signed. The surrounding sediment and surface water were evaluated as part of the plant-wide ecological risk assessment and no chemicals of concern were identified.

Post-PBA (FY2017 and out-years) actions will include MNA with LUC consisting of cap protective provisions and groundwater restrictions.

CLEANUP/EXIT STRATEGY

As a part of RA(O), cap maintenance, MNA, and five-year reviews will be funded under the PBA through September 2017. Post-PBA activities will be limited to long-term RA(O) and five-year reviews to review MNA progress and any new site information.

Site ID: LHAAP-015
Site Name: AREA 49W DRUM STORAGE

STATUS

Parcel: NONE

Regulatory Driver: RCRA

RRSE:

Phases	Start	End
RFA	197906	198705
LTM	201312	204309

RIP Date: N/A

RC Date: 198705

SITE DESCRIPTION

An NFA DD is scheduled to be finalized in 2013. The RI/FS phase for the DD is captured under LHAAP-56. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required.

CLEANUP/EXIT STRATEGY

Post-PBA activities will be limited to five-year review reports in the form of a letter stating the use of the site remains non-residential.

Site ID: LHAAP-016
Site Name: OLD LANDFILL (SWMU 16)

STATUS

Parcel: Burning Ground (FWS) (380 acres)

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater, Soil, Surface Water

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199008	201409
RD	200508	201412
IRA	199410	200509
RA(C)	200508	201503
RA(O)	200508	201709
LTM	201709	204309

RIP Date: 201503

RC Date: 201709

SITE DESCRIPTION

Landfill 16 (formally called the old landfill), consisting of about 22 acres, was originally used to dispose of products generated from the TNT wastewater treatment plant (WWTP); however, a variety of waste was disposed of in the landfill until the 1980s. This waste may have included burned rocket motor casings, substandard TNT, barrels of chemicals, oil, paint, scrap iron and wood. VOCs and metals above action levels have been found in the soil, surface water and groundwater around the site. Low levels of explosive compounds were detected in the groundwater.

SIs conducted in 1993 concluded that an early IRA (landfill cap) was necessary to reduce further contamination to the groundwater. The cap was completed in 1998, using treated soils from LHAAP-18 as subgrade fill. In late-1997, as part of the treatability study, eight extraction wells were installed to prevent contaminated groundwater from impacting Harrison Bayou. This system is still in operation; however, extracted water volume is low. Groundwater extracted from the Landfill 16 containment system is piped to the LHAAP-18 groundwater treatment plant (GWTP).

Perchlorate was first detected in groundwater at this site in 2000. VOCs and perchlorate have been detected in the surface water of Harrison Bayou.

In 2002 the RI was completed along with a five-year review. In March 2002 a final interim FS for Site 16 was issued. Under the PBC, a draft FS addendum to the March 2002 interim FS was submitted in February 2007. The FS was finalized in March 2010. A preliminary MNA evaluation was completed in 2007. The second five-year review was completed in 2008. The PP was finalized September 2010. Quarterly surface water sampling of the Harrison Bayou area has not shown significant contamination. The ROD is delayed until dispute is resolved with EPA. The ROD will include cap maintenance, in situ bioremediation, biobarriers, MNA and LUCs.

An environmental security technology certification program research and development project for enhanced in situ bioremediation (VOCs, perchlorate and explosives in groundwater) was started in 2003 and continued to 2008. Ecological concerns most likely will be addressed with the final remedy at this site. Post-PBA actions will include RA(O) and groundwater monitoring.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy being considered for this site is passive

Site ID: LHAAP-016
Site Name: OLD LANDFILL (SWMU 16)

biobarriers, in situ bioremediation and MNA for groundwater, and LTM. Tasks to be completed before the PBA ends are completion of primary documents (ROD and RD), and accomplishment of remedy-in-place (RIP). At this time, it is expected that the post-PBA long-term RA(O)and LTM will involve monitoring MNA with maintenance of the cap and LUC.

Site ID: LHAAP-017
Site Name: NO 2 FLASHING AREA BRN GROUND(SWMU 17)

STATUS

Parcel: Burning Ground (FWS) (380 acres)

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Explosives, Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199008	201409
RD	200508	201412
RA(C)	200508	201503
RA(O)	200508	201709
LTM	201709	204309

RIP Date: 201503

RC Date: 201709

SITE DESCRIPTION

This site (about 500 by 600 feet) was used to burn bulk TNT, photoflash powder, and reject material from Universal Match Corporation's production processes. From 1959 until 1980 the site was operated as a burning ground. In 1959 buildings razed at Site 29 (the former TNT production area) were burned at Burning Ground No. 2/Flashing Area (LHAAP-17). This site is situated about 400-500 feet southwest of Burning Ground No. 3.

In 1984 waste residues were removed and the area grassed over. VOCs and explosive compounds were found in the groundwater. Explosive compounds were found in the soil. In 2000 perchlorate was detected at this site [in groundwater at 300 parts per million (ppm), but less in soil].

In 2002 the RI was completed and a draft FS was prepared. In 2004 additional data gap studies were completed. A revised draft FS was submitted in 2009 by the PBC and the FS was finalized in 2010. The PP was finalized in May 2010.The ROD is delayed until dispute is resolved with EPA. The ROD will include soil removal, extraction and treatment of groundwater, MNA and LUCs.

A research and development project for enhanced in situ-bioremediation (VOCs, perchlorate and explosives in soil and groundwater) was started in 2002 and completed in 2004. Results indicate that perchlorate contamination was reduced. An additional intermediate well was installed at the site in February 2008.

Post-PBA actions during LTM will involve monitoring of MNA.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy being considered for this site is groundwater extraction, followed by MNA for groundwater, and excavation and disposal for soil. Tasks to be completed before September 2017 are completion of primary documents (ROD and RD), and accomplishment of RIP. At this time, it is expected that the post-PBC long-term RA(O) and LTM will involve monitoring of MNA and LUC.

Site ID: LHAAP-018
Site Name: BURNING GROUND/WASHOUT POND(SWMU 18)

STATUS

Parcel: Burning Ground (FWS) (380 acres)

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Metals, Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater, Soil, Surface Water

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199008	201408
RD	200508	201501
IRA	199503	201108
RA(C)	200508	201511
RA(O)	200508	204309

RIP Date: 201511

RC Date: 204309

SITE DESCRIPTION

This 34.5 acre site, also known as Burning Ground No. 3, began operations in 1955. It was used for the treatment, storage, and disposal of solid and liquid explosives, pyrotechnics, and combustible solvent wastes by open burning, open detonation, and burial. The unlined evaporation pond (UEP) (LHAAP-024) was constructed in 1963 within Burning Ground No. 3. Explosive compounds, VOCs, and metals were detected in the soils and groundwater. In 1998 perchlorate was detected in the groundwater. In 1986 sludge from the UEP was removed and the area was capped. Quarterly monitoring has been conducted at the site since closure of the UEP.

In May 1995 an IRA ROD was signed. This IRA addressed soil and shallow groundwater contamination. In 1997, 30,000 cubic yards (cy) of soil were excavated and treated. The treated soil was used as fill in LHAAP-012 and -016. A GWTP, with approximately 5,000 feet of interception collection trenches, has been installed to control migration of contaminated groundwater. After treatment the extracted groundwater is discharged into Harrison Bayou. In 1999 perchlorate was detected at this site and a fluidized bed reactor treatment system was installed.

In 2002 the RI was completed, followed by a draft FS. In September 2007 the PBC contractor began an optimization pilot study for the groundwater extraction system with a report completed in February 2009. A post-screening investigation work plan was finalized in 2013 to address site data gaps and support completion of the RI/FS.

Post-PBA actions during LTM are expected to include review of MNA progress.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy being considered for this site is optimization of the groundwater extraction system, bioaugmentation, and MNA. Tasks to be completed before September 2017 are completion of primary documents (FS, PP, ROD, RD) and accomplishment of RIP and continued RA(O).

The final remedy has not been selected yet for this site. At this time, the post-PBC long-term RA(O) and LTM are expected to include groundwater extraction, bioremediation and five-year reviews.

Site ID: LHAAP-019
Site Name: CONSTRUCTION MATERIALS LANDFILL

STATUS

Parcel: NONE

Regulatory Driver: RCRA

RRSE:

Phases	Start	End
RFA	197906	198705
CS	197906	198705
LTM	201312	204309

RIP Date: N/A

RC Date: 198705

SITE DESCRIPTION

An NFA DD to be finalized in 2013. The RI/FS phase for the DD is captured under LHAAP-56. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required.

CLEANUP/EXIT STRATEGY

Post-PBA activities will be limited to five-year review reports in the form of a letter stating the use of the site remains non-residential.

Site ID: LHAAP-024
Site Name: FORMER UNLINED EVAP POND (SWMU 24)

STATUS

Parcel: Burning Ground (FWS) (380 acres)

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Metals, Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA	199005	199005
SI	199005	199008
RI/FS	199008	201408
RD	200508	201501
IRA	199503	201108
RA(C)	200508	201511
RA(O)	200508	204309

RIP Date: 201511

RC Date: 204309

SITE DESCRIPTION

This three-acre UEP was constructed in 1963 within Burning Ground No. 3. Explosive compounds, VOCs, and metals were detected in the soils and groundwater. In 1999, perchlorate was detected in the groundwater. In 1986, sludge from the UEP was removed and the area was capped. Quarterly monitoring has been conducted at the site since closure of the UEP.

In May 1995, an IRA ROD was signed. This IRA addressed soil and shallow groundwater contamination. In 1997, 30,000 cy of soil was excavated and treated. The treated soil was used as fill in LHAAP-012 and LHAAP-016. A GWTP, with approximately 5,000 feet of interception collection trenches, has been installed to control migration of contaminated groundwater. After treatment, the extracted groundwater is discharged into Harrison Bayou. In 1999 perchlorate was detected at this site and in 2001 a fluidized bed reactor treatment system was installed.

In 2002 the RI was completed, followed by a draft FS. In September 2007 the PBC contractor began an optimization study for the groundwater extraction system with a report on the results completed February 2009. A post-screening investigation work plan was finalized in 2013 to address site data gaps and support completion of the RI/FS.

Post-PBA actions are currently expected to involve review of MNA progress.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. As with LHAAP-018, the remedy being considered for this site is optimization of the groundwater extraction system, bioaugmentation and MNA. Tasks to be completed before September 2017 are completion of primary documents (FS, PP, ROD, RD) and accomplishment of RIP and continued RA(O).

The final remedy has not been selected yet for this site but the post-PBC long-term RA(O) and LTM are expected to include groundwater extraction, bioremediation and five-year reviews.

Site ID: LHAAP-029
Site Name: FORMER TNT PRODUCTION AREA(SWMU 29)

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Munitions constituents (MC), Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater, Sediment, Soil, Surface Water

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199008	201409
RD	200508	201412
RA(C)	200508	201503
RA(O)	200508	201709
LTM	201709	204309

RIP Date: 201503

RC Date: 201709

SITE DESCRIPTION

The former TNT production area, consisting of about 85 acres, was in operation from April 1943 to August 1945 as a six-line plant, with a supporting acid plant. The plant produced 180 million kilograms of TNT throughout the period of operation. A bulk toluene storage area, servicing the TNT production area, was located adjacent to the production area. The TNT wastewater (red water) from the production of the TNT was sent through wooden pipelines to a storage tank and pump house, and then to the TNT WWTP (LHAAP-032). Cooling water (blue water) from the production area ran through main lines and into an open ditch. In 1959, the structures, except for the foundations, were demolished and removed. Through the late-1980s a portion of the northeast corner of the site (approximately two acres) was used for the washout of Pershing 1 and 2 rocket motor casings using trichloroethylene (TCE) and methylene chloride.

Explosive compounds have been detected in the soil, surface water, sediment, and groundwater samples. High concentrations of VOCs (including TCE and methylene chloride) have been detected in the groundwater with the highest concentrations in the intermediate hydrostratigraphic unit, and methylene chloride, dense non-aqueous phase liquid is suspected. In 2000 perchlorate was first detected in the soil and in the groundwater [at 88 parts per million (ppm)] at this site.

In 2002, the RI was completed and this site is included in the Group 2 draft FS. In FY2005 field sampling for soils was conducted. In FY2006, six wells were installed and sampled. Sediment samples were also collected from waste lines and outfall ditches. A revised draft FS was submitted by the PBC in 2008 and was finalized in 2010. The ROD is delayed until dispute is resolved with EPA. The ROD will include soil removal, flushing and plugging lines, in situ chemical oxidation treatment of groundwater, MNA and LUCs.

LHAAP-49, the former acid plant (also known as former acid storage), was originally funded under LHAAP-29 due to the association in plant function. This was the location where acids were received and prepared for use in the TNT manufacturing process. The final site evaluation was finalized in 2009 and the ROD was finalized in 2010.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy being considered for this site is in situ groundwater remediation followed by MNA, flushing and plugging lines, and excavation and disposal for soil and sediments. Tasks to be completed before September 2017 are completion of primary documents (ROD, RD), and accomplishment of RIP. The final remedy has not been selected yet for this site. At this time, the post-PBA RA(O) is expected to involve MNA and LUC.

Site ID: LHAAP-034
Site Name: BUILDING 701 PCB STORAGE

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	197906	198705
SI	197906	198705
LTM	201312	204309

RIP Date: N/A

RC Date: 198705

SITE DESCRIPTION

LHAAP-034 consists of a building formerly used for storage of PCB-contaminated material from transformer spills. In Operation from 1980 through 1984. An NFA DD is scheduled to be finalized in 2013. The RI/FS phase for the DD is captured under LHAAP-56. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required.

CLEANUP/EXIT STRATEGY

Post-PBA activities will be limited to five-year review reports in the form of a letter stating the use of the site remains non-residential.

Site ID: LHAAP-035
Site Name: SUMPS (145) VARIOUS

STATUS

Parcel: East FIA II(FWS) (175 acres),Production Area Ib (FWS) (107.59 acres),Production Area Ia (FWS) (456.72 acres)

Regulatory Driver: CERCLA

RRSE: HIGH

Phases	Start	End
PA	197906	198705
SI	197906	198705
RI/FS	199301	200908
RD	200508	200908
RA(C)	200508	200908
RA(O)	200709	200908
LTM	201201	204309

RIP Date: 200908

RC Date: 200908

SITE DESCRIPTION

This site contained 125 industrial wastewater sumps. The sumps were located in different production areas within LHAAP. Many of the sumps were removed or closed in 1996.

Several buildings at sites where sumps were located have a history of perchlorate use. Perchlorate contamination at these sites has been identified in the soil, surface water and groundwater. Interim measures have been implemented to minimize the runoff of perchlorate to Goose Prairie Creek.

In 2002, the RI was completed and in late FY2003 the initial perchlorate assessment was completed. Additional soil sampling, for the sumps, was completed in fall 2006. The NFA DD was finalized in December 2010. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

The following are associated with LHAAP-35 in AEDB-R because there were sumps at the sites; however, they are being addressed as separate sites for other environmental issues [i.e. five-year reviews, RA(O)/LTM]:
LHAAP-002 LHAAP-003 LHAAP-004 LHAAP-006 LHAAP-007 LHAAP-036
LHAAP-058 LHAAP-060 LHAAP-65 LHAAP-068 (PBC) LHAAP-008 LHAAP-037 (TERC)

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required. Soil that was found to be contaminated with perchlorate at sites where sumps were located is being addressed by those individual sites (i.e. LHAAP-047 and LHAAP-050)

Site ID: LHAAP-036
Site Name: EXPLOSIVE WASTE PADS (27)

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	197906	198705
SI	197906	198705
LTM	201201	204309

RIP Date: N/A

RC Date: 198705

SITE DESCRIPTION

This site consists of 20 waste pads made of metal roof over four by eight concrete pad. It is included in Group 4 RI/FS. The NFA DD was finalized in December 2010. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-037
Site Name: CHEMICAL LABORATORY WASTE PAD

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: MEDIUM

Contaminants of Concern: Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
PA	199005	199008
RI/FS	201003	201006
RD	201006	201108
RA(C)	201201	201310
RA(O)	201201	201709
LTM	201709	204309

RIP Date: 201310

RC Date: 201709

SITE DESCRIPTION

This site is a collection point for spent solvents from the quality assurance (QA) lab. It consists of one 55-gallon drum set on a concrete pad. The site is included in the Group 4 RI/FS. The ROD was finalized in August 2010 and included MNA and LUCs for the site. The RD was finalized in August 2011. The RAWP was finalized in 2013. The RA(O) is on hold while a two-year bioplug demonstration is implemented at the site beginning in March 2012.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. Actions to be completed before the PBA ends are accomplishment of RIP followed by RA(O)/LTM including institutional controls (LUC). The RD complete in 2011 includes the following remedies for this site: MNA for groundwater, and LTM. At this time, it is expected that the post-PBA long-term RA(O) and LTM will involve monitoring MNA and LUC.

Site ID: LHAAP-045
Site Name: MAGAZINE AREA

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: MEDIUM

Phases	Start	End
PA	199005	199008
SI	200003	200409
LTM	201201	204309

RIP Date: N/A

RC Date: 200409

SITE DESCRIPTION

This site consists of 800 acres with 58 bunkers and two buildings used for storage of munitions. An SI conducted by US Army Center for Health, Promotion and Preventive Medicine (USACHPPM) (now know as the Public Health Command), determined perchlorate contamination. RI to be completed in September 2003. The final evaluation of LHAAP-45 surface soil analytical data was finalized in September 2004. The site received USEPA concurrence for no further environmental investigation necessary. The site is closed and suitable for industrial use. A five-year review report in the form of a memorandum report stating the use of the site remains industrial will be required for internal Army records.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-046
Site Name: PLANT 2 AREA

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: MEDIUM

Contaminants of Concern: Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
PA	200201	200201
RI/FS	201006	201009
RD	201106	201109
RA(C)	201201	201304
RA(O)	201201	201709
LTM	201709	204309

RIP Date: 201304

RC Date: 201709

SITE DESCRIPTION

LHAAP-46, also known as Plant 2, had facilities for production of JB-2 propellant fuel 1944-1945 and was used to produce pyrotechnic ammunition, such as photoflash bombs, simulators, hand signals, and tracers for 40mm ammo from 1952-1956. Plant 2 was reactivated to produce pyrotechnic and illuminating devices from 1964 to 1997. Site investigations determined that groundwater was contaminated with VOCs. The ROD was finalized in September 2010 and includes MNA and LUCs for the site. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required. The RD was finalized in September 2011. The RAWP was finalized in 2013 and RIP was acheived in April 2013.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy selected for this site is MNA for groundwater. Tasks to be completed before September 2017 are accomplishment of RIP followed by RA(O)/LTM. The final remedy has been selected for this site. At this time, it is expected that the post-PBA RA(O) will involve monitoring MNA and LUC.

Site ID: LHAAP-047
Site Name: PLANT 3 AREA

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Metals, Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA	197906	198705
RI/FS	201201	201409
RD	201201	201502
RA(C)	201201	201510
RA(O)	201201	201709
LTM	201709	204309

RIP Date: 201510

RC Date: 201709

SITE DESCRIPTION

LHAAP-47, also known as Plant 3, was used from 1954 to the early-1980s to produce rocket motors. Some of the rocket motor facilities converted to produce pyrotechnic and illumination devices, and continued this operation until 1997. Site investigations determined that groundwater was contaminated with VOCs, perchlorate, and metals and a soil source for perchlorate was identified. The FS evaluating remedial alternatives for LHAAP-47 was finalized in July 2011. The RAs for this site have been funded under an existing contract. The ROD is delayed until dispute is resolved with EPA.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy being considered for this site is bioaugmentation, biobarriers and MNA. Tasks to be completed before September 2017 are completion of primary documents (ROD and RD) and accomplishment of RIP and continued RA(O).

The final remedy has not been selected yet for this site. At this time, the post-PBC long-term RA(O) and LTM are expected to include MNA and five-year reviews.

Site ID: LHAAP-049
Site Name: FORMER ACID STORAGE AREA

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	200903	200906
RI/FS	201005	201008
LTM	201201	204309

RIP Date: N/A

RC Date: 201008

SITE DESCRIPTION

LHAAP-49 is the former aid storage area, which was used from 1942 to 1945 for storage and formulation of acids and acid mixtures in support of TNT production during WWII. The NFA ROD was finalized in August 2010. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-050
Site Name: FORMER WASTE DISPOSAL FACILITY

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: HIGH

Contaminants of Concern: Metals, Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA	199005	199008
SI	199506	199707
RI/FS	199801	201001
RD	200508	201102
RA(C)	200508	201310
RA(O)	200508	201709
LTM	201709	204309

RIP Date: 201310

RC Date: 201709

SITE DESCRIPTION

This site of about one acre received wastewater from the sumps at Plants 2 and 3 from 1955 to the early-1970s. Washout of ammonium perchlorate containers was also performed on this site.

VOCs and perchlorate were detected in the soil samples. VOCs, metals and perchlorate were detected in groundwater. The VOCs and perchlorates in groundwater pose an unacceptable risk. In 2004 an additional data gap sampling was completed and in February 2008 an additional shallow well was installed downgradient of this site.

In 2002, the RI was completed and the FS was finalized in 2010. The ROD was finalized in 2010. The ROD includes soil removal, MNA and LUCs (groundwater use restriction) for the site. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required. The RD was finalized in September 2011. The RAWP was finalized in 2013.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy selected for this site is MNA for groundwater, and excavation and disposal for soil. Tasks to be completed before September 2017 are accomplishment of RIP followed by RA(O)/LTM. The final remedy has been selected for this site. At this time, it is expected that the post-PBA RA(O) will involve MNA and LUC.

Site ID: LHAAP-051
Site Name: PHOTOGRAPHIC LABORATORY/BLDG #60B

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	199005	199008
LTM	201201	204309

RIP Date: N/A

RC Date: 199008

SITE DESCRIPTION

Building 60B was the location for processing x-ray film. It will be handled under RCRA closure. An NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-052
Site Name: MAGAZINE AREA WASHOUT

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: LOW

Phases	Start	End
PA	199005	199008
SI	199506	199804
LTM	201312	204309

RIP Date: N/A

RC Date: 199805

SITE DESCRIPTION

A standpipe near the intersection of Avenue E and 19th was used to wash out trucks used for transport of TNT. An NFA DD will be finalized in 2013. The RI/FS Phase for the DD is captured under LHAAP-56. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required.

CLEANUP/EXIT STRATEGY

Post-PBA activities will be limited to five-year review reports in the form of a letter stating the use of the site remains non-residential.

Site ID: LHAAP-055
Site Name: SEPTIC TANK (10)

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	199005	199008
LTM	201201	204309

RIP Date: N/A

RC Date: 199008

SITE DESCRIPTION

This site is being handled under RCRA guidelines. An NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-056
Site Name: VEHICLE WASH RACK AND OIL/WATER SEP

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: NOT EVALUATED

Phases	Start	End
PA	199304	200801
RI/FS	201201	201312

RIP Date: N/A

RC Date: 201312

SITE DESCRIPTION

This site consisted of a concrete washrack sloped to drain, connected to an oil/water separator. The site had a permitted discharge to a drainage ditch. The site is located within the shop area. The sump on this site was investigated under LHAAP-035. DD finalized in 2013. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required. Five-year review costs are captured with LHAAP-35A(58) because this site falls within the boundary of LHAAP-35A(58).

CLEANUP/EXIT STRATEGY

This is a zero cost site. An NFA DD was funded in 2012.

Site ID: LHAAP-057
Site Name: RUBBLE BURIAL SITE

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	199005	199008
LTM	201312	204309

RIP Date: N/A

RC Date: 199008

SITE DESCRIPTION

LHAAP-057 was used for burial of inert materials that were cleared from property records. An NFA DD is scheduled to be finalized in 2013. The RI/FS phase for the DD is captured under LHAAP-56. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required.

CLEANUP/EXIT STRATEGY

Post-PBA activities will be limited to five-year review reports in the form of a letter stating the use of the site remains non-residential.

Site ID: LHAAP-058
Site Name: MAINTENANCE COMPLEX

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: MEDIUM

Contaminants of Concern: Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
PA	199005	199008
SI	199502	199506
RI/FS	201006	201009
RD	201106	201109
RA(C)	201109	201310
RA(O)	201109	201709
LTM	201709	204309

RIP Date: 201310

RC Date: 201709

SITE DESCRIPTION

LHAAP-35A(58), also known as the shops area, was used to provide plant-operated laundry, automotive, woodworking, metalworking, painting, refrigeration, and electrical services. VOCs were detected in groundwater. The ROD was finalized in 2010 and includes in situ bioremediation for the eastern plume and MNA and LUCs (groundwater use restriction) for both the eastern and western groundwater plume for the site. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required. Five-year review costs for LHAAP-002, 003, 056, 059, 060, 061, 065, 068, and 069 are captured with LHAAP-35A(58). Five-year review costs because these sites fall within the boundary of LHAAP-35A(58). The RD was finalized in September 2011. The RAWP was finalized in 2013.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. The remedy selected for this site is in situ bioremediation and MNA for groundwater. Tasks to be completed before September 2017 are accomplishment of RIP followed by RA(O)/LTM, which will involve MNA and LUC.

Site ID: LHAAP-059
Site Name: BUILDING 725

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	200705	200708
RI/FS	200805	200808
LTM	201201	204309

RIP Date: N/A

RC Date: 200808

SITE DESCRIPTION

Building 725 at LHAAP-59 was constructed in 1984 to support maintenance activities at the plant as a pesticide storage building. It was determined through site investigations that no significant release had occurred at this site. The NFA DD was finalized in August 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required. Five-year review costs are captured with LHAAP-35A(58) five-year review costs because this site falls within the boundary of LHAAP-35A(58).

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-060
Site Name: FORMER STORAGE BUILDING #411 & #714

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: MEDIUM

Phases	Start	End
PA	199005	199008
SI	199506	199707
RI/FS	199801	200402
LTM	201201	204309

RIP Date: N/A

RC Date: 200402

SITE DESCRIPTION

This site consists of two buildings formerly used for storage of pesticides and herbicides. It is included in Group 4 for RD/RA efforts. An NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required. Five-year review costs are captured with LHAAP-35A(58). Five-year review costs because this site falls within the boundary of LHAAP-35A(58).

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-061
Site Name: POTABLE WTP SEDIMENT POND

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	199005	199008
LTM	201201	204309

RIP Date: N/A

RC Date: 199008

SITE DESCRIPTION

LHAAP-061 is closed under RCRA guidelines. A DD is scheduled to be finalized in 2013. The RI/FS phase for the DD is captured under LHAAP-56. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required. Five-year review costs are captured with LHAAP-35A(58) five-year review costs because this site falls within the boundary of LHAAP-35A(58).

CLEANUP/EXIT STRATEGY

Post-PBA activities will be limited to five-year review reports in the form of a letter stating the use of the site remains non-residential.

Site ID: LHAAP-063
Site Name: BURIAL PITS

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: LOW

Phases	Start	End
PA	199005	199008
SI	199506	199804
LTM	201312	204309

RIP Date: N/A

RC Date: 199805

SITE DESCRIPTION

LHAAP-063 was used in late 50s for the detonation of Plant 3 reject material of unknown composition. NFA DD to be finalized in 2013. The RI/FS phase for the DD is captured under LHAAP-56. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required.

CLEANUP/EXIT STRATEGY

Post-PBA activities will be limited to five-year review reports in the form of a letter stating the use of the site remains non-residential.

Site ID: LHAAP-064
Site Name: TRANSFORMER STORAGE

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	199005	199008
SI	199502	199506
LTM	201201	204309

RIP Date: N/A

RC Date: 199506

SITE DESCRIPTION

LHAAP-064 was used for storage of non-PCB transformers. An NFA was required and an NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-065
Site Name: BUILDING 209

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: NOT EVALUATED

Phases	Start	End
PA	201103	201106
RI/FS	201201	201312

RIP Date: N/A

RC Date: 201312

SITE DESCRIPTION

Building 209 was used for chemical storage for items such as paint and solvents. This building has a concrete floor with floor drains connected to sumps. The site is located just off of 11th street near the fire station. A DD was finalized in 2013. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required. Five-year review costs are captured with LHAAP-35A(58) five-year review costs because this site falls within the boundary of LHAAP-35A(58).

CLEANUP/EXIT STRATEGY

This is a zero cost site. An NFA DD was funded in 2012.

Site ID: LHAAP-066
Site Name: TRANSFORMER AT BLDG 401

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	199005	199008
SI	199502	199506
LTM	201201	204309

RIP Date: N/A

RC Date: 199506

SITE DESCRIPTION

A transformer at Building 401 dripped oil for approximately one year. The transformer did not contain PCBs, so an NFA was required. An NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non- residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-067
Site Name: ABOVE GROUND STORAGE TANK

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
RRSE: MEDIUM

Contaminants of Concern: Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
PA	199005	199008
SI	199809	199906
RI/FS	200110	201006
RD	201105	201108
RA(C)	201201	201304
RA(O)	201201	201709
LTM	201709	204309

RIP Date: 201304

RC Date: 201709

SITE DESCRIPTION

This site consisted of seven aboveground storage tanks (AST) containing No. 2 fuel oil, kerosene or solvents. The ASTs had earthen dikes sufficient to contain a potential spill. Motor fuel tanks were registered with the state and have been removed. Central Creek runs to the south of this site.

In 2001, VOCs (TCE, 1,1-dichloroethene, 1,2-dichloroethane, 1,1,2-trichloroethane) were detected in the groundwater. The data indicates that the impact is limited.

In 2002, the RI was completed and in 2004 additional sampling was conducted, with the final FS completed in August 2005. The ROD was finalized in August 2010 and included MNA and LUCs (groundwater use restriction) for the site. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required. The RD was finalized in August 2011. The RAWP was finalized in 2013 and RIP was acheived in April 2013.

CLEANUP/EXIT STRATEGY

This site is being addressed under a PBA through September 2017. Actions to be completed before the PBA ends are accomplishment of RIP followed by RA(O)/LTM. The ROD complete in 2010 selected the following remedies for this site: MNA for groundwater, and LTM. At this time, it is expected that the post-PBA long-term RA(O) and LTM will involve MNA and LUC.

Site ID: LHAAP-068
Site Name: MOBILE STORAGE TANK PARKING AREA

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	199005	199008
LTM	201201	204309

RIP Date: N/A

RC Date: 199008

SITE DESCRIPTION

This site was corrected under RCRA guidelines in 1993. An NFA DD was signed in December 2008. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required. Five-year review costs are captured with LHAAP-35A(58) five-year review costs because this site falls within the boundary of LHAAP-35A(58).

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

Site ID: LHAAP-069
Site Name: SERVICE STATION UST'S

STATUS

Parcel: NONE

Regulatory Driver: RCRA

RRSE:

Phases	Start	End
ISC	199005	199008
LTM	201201	204309

RIP Date: N/A

RC Date: 199306

SITE DESCRIPTION

LHAAP-069 was corrected under RCRA guidelines in 1993. An NFA. DD was finalized in 2013. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required. Five-year review costs are captured with LHAAP-35A(58) five-year review costs because this site falls within the boundary of LHAAP-35A(58).

CLEANUP/EXIT STRATEGY

Post-PBA activities will be limited to five-year review reports in the form of a letter stating the use of the site remains non-residential.

Site ID: LHAAP-070
Site Name: LOADING DOCK-MAGAZINE AREA

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	197906	198705
SI	199502	199506
LTM	201312	204309

RIP Date: N/A

RC Date: 199506

SITE DESCRIPTION

There was a report of spill of boxes of TNT at LHAAP-070; however, site inspections revealed no visual evidence of TNT contamination. NFA is required. A DD is scheduled to be finalized in 2013. The RI/FS Phase for the DD is captured under LHAAP-56. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required.

CLEANUP/EXIT STRATEGY

Post-PBA activities will be limited to five-year review reports in the form of a letter stating the use of the site remains non-residential.

Site ID: LHAAP-071
Site Name: OIL SPILL, BLDG 813

STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE:

Phases	Start	End
PA	197906	198705
SI	199502	199506
LTM	201312	204309

RIP Date: N/A

RC Date: 199506

SITE DESCRIPTION

An oil tank spill occurred at Building (Bldg) 813 in 1978. The spill was contained before it could reach Central Creek. An NFA. DD is scheduled to be finalized in 2013. The RI/FS phase for the DD is captured under LHAAP-056. A notification (not a remedy or LUC) will be filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential will be required.

CLEANUP/EXIT STRATEGY

Post-PBA activities will be limited to five-year review reports in the form of a letter stating the use of the site remains non-residential.

Site ID: PBC Longhorn
Site Name: PBC at Longhorn

STATUS

Parcel: Pistol Range (FWS) (1 acres),East FIA II(FWS) (175 acres),Production Area II (467 acres),Production Area Ib (FWS) (107.59 acres),Production Area Ia (FWS) (456.72 acres)

Regulatory Driver: CERCLA

RRSE: LOW

Contaminants of Concern: Explosives, Metals, Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
PA	200501	200503
RD	201203	201502
RA(C)	201203	201510
RA(O)	201510	201709

RIP Date: 201510

RC Date: 201709

SITE DESCRIPTION

The PBC was awarded in March 2012. The goal is to achieve RIP by September 2013 for the following sites and RA(O)/LTM upon achievement:
- LHAAP-03: Building 722 paint shop
- LHAAP-04: Pilot WWTP
- LHAAP-16: Old landfill (solid waste management unit (SWMU) 16)
- LHAAP-17: No. 2 flashing area/burning ground (SWMU 17)
- LHAAP-18: Burning ground/washout pond (SWMU 18)
- LHAAP-24: Former UEP (SWMU 24)
- LHAAP-29: Former TNT production area (SWMU 29)
- LHAAP-37: Chemical laboratory
- LHAAP-46: Plant 2/pyrotechnic operation
- LHAAP-47: Plant 3 Area, solid rocket fuel motor production
- LHAAP-50: Former waste disposal facility
- LHAAP-58: Maintenance complex
- LHAAP-67: AST farm

The RIP is delayed for several sites until dispute is resolved with EPA.

The PBC also covers LTM and LUC maintenance for:
- LHAAP-12: Active landfill
- LHAAP-001-R-01: South test area
- LHAAP-003-R-01: Ground signal test area

The PBC also covers a CERCLA 121 (c) review for all sites with RIP.

CLEANUP/EXIT STRATEGY

These sites are being addressed under a PBA through September 2017. Any follow-on actions will be funded under a separate contract mechanism.

IRP Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
LHAAP-005	POWER HOUSE BOILER POND	198705	RCRA Closure under NPDES Permit (1999). No further action planned. The property has been transferred to the USFWS.
LHAAP-009	BUILDING 31-W DRUM STORAGE	198705	RCRA Closure, Closed on 11/18/99; (Complete Environmental Services, October 1999, Final Closure Report, Hazardous Waste Storage Area 31-W RCRA Permit 50195 Unit No. 001). No further remedial action planned. Transferred to USFWS May 2004.
LHAAP-013	SUS TNT BET ACTIVE&OLD LANDFILL(SWMU 13)	199512	
LHAAP-014	AREA 54 BURIAL GRND (SWMU 14)	199512	
LHAAP-023	BUILDING 707-STORAGE AREA PCBS	200601	
LHAAP-027	SOUTH TEST AREA/BOMB TEST AREA(SWMU 27)	199801	ROD for NFA signed in 1998
LHAAP-032	FORMER TNT WASTEWATER PLT(SWMU 32)	200809	ROD for NFA - signed September 2008
LHAAP-039	25X WASHOUT PAD	199008	PP - September 1994; Combined with LHAAP-18/24 IRA - Capping Site 18 1986; IRA - Soil Removal and Capping 1986; LTM - Groundwater Monitoring System Installed 1989;
LHAAP-053	STATIC TEST AREA	200809	A no action decision document signed in 2008.
LHAAP-054	GRD SIGNAL TEST AREA (LHAAP-XX)	199801	ROD for NFA signed in 1998.

IRP Schedule

Date of IRP Inception: 197906

Past Phase Completion Milestones

1984	
PA	(LHAAP-001 - INERT BURNING GROUNDS (SWMU 1))
SI	(LHAAP-001 - INERT BURNING GROUNDS (SWMU 1))
1987	
CS	(LHAAP-019 - CONSTRUCTION MATERIALS LANDFILL)
PA	(LHAAP-002 - VACCUM TRUCK OVERNITE PARKING LOT, LHAAP-003 - BUILDING 722-PAINT SHOP, LHAAP-004 - LHAAP PILOT WASTEWATER TREATMENT PLANT, LHAAP-006 - BUILDING 54F SOLVENT, LHAAP-011 - SUS TNT BURIAL SITE AT AVE P&Q(SWMU 11), LHAAP-012 - ACTIVE LANDFILL (SWMU 12), LHAAP-013 - SUS TNT BET ACTIVE&OLD LANDFILL(SWMU 13), LHAAP-014 - AREA 54 BURIAL GRND (SWMU 14), LHAAP-016 - OLD LANDFILL (SWMU 16), LHAAP-017 - NO 2 FLASHING AREA BRN GROUND(SWMU 17), LHAAP-018 - BURNING GROUND/WASHOUT POND(SWMU 18), LHAAP-023 - BUILDING 707-STORAGE AREA PCBS, LHAAP-027 - SOUTH TEST AREA/BOMB TEST AREA(SWMU 27), LHAAP-029 - FORMER TNT PRODUCTION AREA(SWMU 29), LHAAP-032 - FORMER TNT WASTEWATER PLT(SWMU 32), LHAAP-034 - BUILDING 701 PCB STORAGE, LHAAP-035 - SUMPS (145) VARIOUS, LHAAP-036 - EXPLOSIVE WASTE PADS (27), LHAAP-047 - PLANT 3 AREA, LHAAP-070 - LOADING DOCK-MAGAZINE AREA, LHAAP-071 - OIL SPILL, BLDG 813)
RFA	(LHAAP-005 - POWER HOUSE BOILER POND, LHAAP-007 - BUILDING 50G DRUM PROCESSING, LHAAP-008 - SEWAGE TREATMENT PLANT, LHAAP-009 - BUILDING 31-W DRUM STORAGE, LHAAP-015 - AREA 49W DRUM STORAGE, LHAAP-019 - CONSTRUCTION MATERIALS LANDFILL)
SI	(LHAAP-011 - SUS TNT BURIAL SITE AT AVE P&Q(SWMU 11), LHAAP-012 - ACTIVE LANDFILL (SWMU 12), LHAAP-013 - SUS TNT BET ACTIVE&OLD LANDFILL(SWMU 13), LHAAP-014 - AREA 54 BURIAL GRND (SWMU 14), LHAAP-016 - OLD LANDFILL (SWMU 16), LHAAP-017 - NO 2 FLASHING AREA BRN GROUND(SWMU 17), LHAAP-018 - BURNING GROUND/WASHOUT POND(SWMU 18), LHAAP-023 - BUILDING 707-STORAGE AREA PCBS, LHAAP-027 - SOUTH TEST AREA/BOMB TEST AREA(SWMU 27), LHAAP-029 - FORMER TNT PRODUCTION AREA(SWMU 29), LHAAP-032 - FORMER TNT WASTEWATER PLT(SWMU 32), LHAAP-034 - BUILDING 701 PCB STORAGE, LHAAP-035 - SUMPS (145) VARIOUS, LHAAP-036 - EXPLOSIVE WASTE PADS (27))
1990	
ISC	(LHAAP-069 - SERVICE STATION UST'S)
SI	(LHAAP-024 - FORMER UNLINED EVAP POND (SWMU 24), LHAAP-054 - GRD SIGNAL TEST AREA (LHAAP-XX))
PA	(LHAAP-061 - POTABLE WTP SEDIMENT POND, LHAAP-063 - BURIAL PITS, LHAAP-064 - TRANSFORMER STORAGE, LHAAP-066 - TRANSFORMER AT BLDG 401, LHAAP-067 - ABOVE GROUND STORAGE TANK, LHAAP-024 - FORMER UNLINED EVAP POND (SWMU 24), LHAAP-037 - CHEMICAL LABORATORY WASTE PAD, LHAAP-045 - MAGAZINE AREA, LHAAP-050 - FORMER WASTE DISPOSAL FACILITY, LHAAP-051 - PHOTOGRAPHIC LABORATORY/BLDG #60B, LHAAP-052 - MAGAZINE AREA WASHOUT, LHAAP-054 - GRD SIGNAL TEST AREA (LHAAP-XX), LHAAP-055 - SEPTIC TANK (10), LHAAP-057 - RUBBLE BURIAL SITE, LHAAP-058 - MAINTENANCE COMPLEX, LHAAP-060 - FORMER STORAGE BUILDING #411 & #714, LHAAP-068 - MOBILE STORAGE TANK PARKING AREA)
RFA	(LHAAP-039 - 25X WASHOUT PAD, LHAAP-053 - STATIC TEST AREA)
1995	
SI	(LHAAP-064 - TRANSFORMER STORAGE, LHAAP-066 - TRANSFORMER AT BLDG 401, LHAAP-058 - MAINTENANCE COMPLEX, LHAAP-070 - LOADING DOCK-MAGAZINE AREA, LHAAP-071 - OIL SPILL, BLDG 813)
1996	
RI/FS	(LHAAP-013 - SUS TNT BET ACTIVE&OLD LANDFILL(SWMU 13), LHAAP-014 - AREA 54 BURIAL GRND (SWMU 14))

IRP Schedule

1997	
SI	(LHAAP-060 - FORMER STORAGE BUILDING #411 & #714, LHAAP-050 - FORMER WASTE DISPOSAL FACILITY)
1998	
SI	(LHAAP-063 - BURIAL PITS, LHAAP-052 - MAGAZINE AREA WASHOUT)
RI/FS	(LHAAP-001 - INERT BURNING GROUNDS (SWMU 1), LHAAP-011 - SUS TNT BURIAL SITE AT AVE P&Q(SWMU 11), LHAAP-027 - SOUTH TEST AREA/BOMB TEST AREA(SWMU 27), LHAAP-054 - GRD SIGNAL TEST AREA (LHAAP-XX))
1999	
SI	(LHAAP-067 - ABOVE GROUND STORAGE TANK)
2002	
PA	(LHAAP-046 - PLANT 2 AREA)
2004	
SI	(LHAAP-045 - MAGAZINE AREA)
RI/FS	(LHAAP-060 - FORMER STORAGE BUILDING #411 & #714)
2005	
PA	(PBC Longhorn - PBC at Longhorn)
IRA	(LHAAP-012 - ACTIVE LANDFILL (SWMU 12), LHAAP-016 - OLD LANDFILL (SWMU 16))
2006	
RI/FS	(LHAAP-012 - ACTIVE LANDFILL (SWMU 12), LHAAP-023 - BUILDING 707-STORAGE AREA PCBS)
2007	
RA(C)	(LHAAP-012 - ACTIVE LANDFILL (SWMU 12))
PA	(LHAAP-059 - BUILDING 725)
RI/FS	(LHAAP-032 - FORMER TNT WASTEWATER PLT(SWMU 32))
RD	(LHAAP-012 - ACTIVE LANDFILL (SWMU 12))
2008	
RI/FS	(LHAAP-059 - BUILDING 725)
LTM	(LHAAP-032 - FORMER TNT WASTEWATER PLT(SWMU 32), LHAAP-053 - STATIC TEST AREA)
PA	(LHAAP-056 - VEHICLE WASH RACK AND OIL/WATER SEP)
2009	
RI/FS	(LHAAP-035 - SUMPS (145) VARIOUS)
PA	(LHAAP-049 - FORMER ACID STORAGE AREA)
SI	(LHAAP-003 - BUILDING 722-PAINT SHOP)
RA(C)	(LHAAP-035 - SUMPS (145) VARIOUS)
RA(O)	(LHAAP-035 - SUMPS (145) VARIOUS)
RD	(LHAAP-035 - SUMPS (145) VARIOUS)
2010	
RI/FS	(LHAAP-037 - CHEMICAL LABORATORY WASTE PAD, LHAAP-046 - PLANT 2 AREA, LHAAP-049 - FORMER ACID STORAGE AREA, LHAAP-050 - FORMER WASTE DISPOSAL FACILITY, LHAAP-058 - MAINTENANCE COMPLEX, LHAAP-067 - ABOVE GROUND STORAGE TANK)

IRP Schedule

2011

IRA	(LHAAP-004 - LHAAP PILOT WASTEWATER TREATMENT PLANT, LHAAP-018 - BURNING GROUND/WASHOUT POND(SWMU 18), LHAAP-024 - FORMER UNLINED EVAP POND (SWMU 24))
RD	(LHAAP-067 - ABOVE GROUND STORAGE TANK, LHAAP-037 - CHEMICAL LABORATORY WASTE PAD, LHAAP-046 - PLANT 2 AREA, LHAAP-050 - FORMER WASTE DISPOSAL FACILITY, LHAAP-058 - MAINTENANCE COMPLEX)
PA	(LHAAP-065 - BUILDING 209)

Projected Phase Completion Milestones

See attached schedule

Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates

Site ID	Site Name	ROD/DD Title	ROD/DD Date
LHAAP-017	NO 2 FLASHING AREA BRN GROUND(SWMU 17)	Flashing Area/Burning Grnd No 2:LHAAP-17	20140928

Final RA(C) Completion Date: 201511

Schedule for Next Five-Year Review: 2013

Estimated Completion Date of IRP at Installation (including LTM phase): 204309

LONGHORN ARMY AMMUNITION PLANT IRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY14	FY15	FY16	FY17	FY18	FY19+
LHAAP-001	INERT BURNING GROUNDS (SWMU 1)	LTM						
LHAAP-002	VACCUM TRUCK OVERNITE PARKING LOT	LTM						
LHAAP-003	BUILDING 722-PAINT SHOP	RI/FS						
		RD						
		RA(C)						
LHAAP-004	LHAAP PILOT WASTEWATER TREATMENT PLANT	RI/FS						
		RD						
		RA(C)						
		RA(O)						
		LTM						
LHAAP-006	BUILDING 54F SOLVENT	LTM						
LHAAP-007	BUILDING 50G DRUM PROCESSING	LTM						
LHAAP-008	SEWAGE TREATMENT PLANT	LTM						
LHAAP-011	SUS TNT BURIAL SITE AT AVE P&Q(SWMU 11)	LTM						
LHAAP-012	ACTIVE LANDFILL (SWMU 12)	RA(O)						
		LTM						
LHAAP-015	AREA 49W DRUM STORAGE	LTM						
LHAAP-016	OLD LANDFILL (SWMU 16)	RI/FS						
		RD						
		RA(C)						
		RA(O)						
		LTM						
LHAAP-017	NO 2 FLASHING AREA BRN GROUND(SWMU 17)	RI/FS						
		RD						
		RA(C)						
		RA(O)						
		LTM						

LONGHORN ARMY AMMUNITION PLANT IRP Schedule

SITE ID	SITE NAME	PHASE	FY14	FY15	FY16	FY17	FY18	FY19+
LHAAP-018	BURNING GROUND/WASHOUT POND(SWMU 18)	RI/FS						
		RD						
		RA(C)						
		RA(O)						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-019	CONSTRUCTION MATERIALS LANDFILL	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-024	FORMER UNLINED EVAP POND (SWMU 24)	RI/FS						
		RD						
		RA(C)						
		RA(O)						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-029	FORMER TNT PRODUCTION AREA(SWMU 29)	RI/FS						
		RD						
		RA(C)						
		RA(O)						
		LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-034	BUILDING 701 PCB STORAGE	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-035	SUMPS (145) VARIOUS	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-036	EXPLOSIVE WASTE PADS (27)	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-037	CHEMICAL LABORATORY WASTE PAD	RA(C)						
		RA(O)						
		LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-045	MAGAZINE AREA	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-046	PLANT 2 AREA	RA(O)						
		LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-047	PLANT 3 AREA	RI/FS						
		RD						
		RA(C)						
		RA(O)						
		LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-049	FORMER ACID STORAGE AREA	LTM						

LONGHORN ARMY AMMUNITION PLANT IRP Schedule

SITE ID	SITE NAME	PHASE	FY14	FY15	FY16	FY17	FY18	FY19+
LHAAP-050	FORMER WASTE DISPOSAL FACILITY	RA(C)						
		RA(O)						
		LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-051	PHOTOGRAPHIC LABORATORY/BLDG #60B	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-052	MAGAZINE AREA WASHOUT	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-055	SEPTIC TANK (10)	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-056	VEHICLE WASH RACK AND OIL/WATER SEP	RI/FS						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-057	RUBBLE BURIAL SITE	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-058	MAINTENANCE COMPLEX	RA(C)						
		RA(O)						
		LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-059	BUILDING 725	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-060	FORMER STORAGE BUILDING #411 & #714	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-061	POTABLE WTP SEDIMENT POND	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-063	BURIAL PITS	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-064	TRANSFORMER STORAGE	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-065	BUILDING 209	RI/FS						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-066	TRANSFORMER AT BLDG 401	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-067	ABOVE GROUND STORAGE TANK	RA(O)						
		LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-068	MOBILE STORAGE TANK PARKING AREA	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-069	SERVICE STATION UST'S	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-070	LOADING DOCK-MAGAZINE AREA	LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-071	OIL SPILL, BLDG 813	LTM						

LONGHORN ARMY AMMUNITION PLANT IRP Schedule

SITE ID	SITE NAME	PHASE	FY14	FY15	FY16	FY17	FY18	FY19+
PBC Longhorn	PBC at Longhorn	RD						
		RA(C)						
		RA(O)						

LONGHORN ARMY AMMUNITION PLANT

Non-BRAC Excess
Military Munitions Response Program

MMRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 4/1

Installation Site Types with Future and/or Underway Phases

1 Explosive Ordnance Disposal Area
(LHAAP-003-R-01)
1 Pistol Range
(LHAAP-004-R-01)
1 Unexploded Munitions/Ordnance
(LHAAP-001-R-01)

Most Widespread Contaminants of Concern

Explosives

Media of Concern

Groundwater, Soil

Completed Remedial Actions (Interim Remedial Actions / Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY	Cost
LHAAP-001-R-01	SOUTH TEST AREA / BOMB TEST AREA	IRA	UXO CLEARANCE	2009	TBD
LHAAP-001-R-01	SOUTH TEST AREA / BOMB TEST AREA	IRA	INSTITUTIONAL CONTROLS	2009	TBD
LHAAP-004-R-01	PISTOL RANGE	IRA	WASTE REMOVAL - SOILS	2010	TBD

Duration of MMRP

Year of MMRP Inception: 200202

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201409/201409

Date of MMRP completion including Long Term Management (LTM): 204309

MMRP Contamination Assessment

Contamination Assessment Overview

In May 2003 the Phase 3 Army range inventory was completed at LHAAP. The inventory identified three sites as eligible for the Military Munitions Response Program (MMRP). The Phase 3 inventory serves as the preliminary assessment (PA) under CERCLA. In June 2005 an SI was completed. An EE/CA was finalized on the three sites in October 2007. The EE/CA indicated that no Department of Defense (DoD) action was required for LHAAP-002-R-01. An interim removal action was funded for the two other sites and was completed in 2009. In March 2008 an explosives safety submission (ESS) was finalized for the three sites. The final MC summary report was completed in 2011 for LHAAP-001-R-01 and LHAAP-003-R-01. In 2012 the Pistol Range (LHAAP-004-R-01) was added to the MMRP. A soil removal action was completed at LHAAP-004-R-01 and an NFA ROD was signed in September 2010.

Cleanup Exit Strategy

Limited groundwater monitoring for perchlorate and five-year reviews are planned for LHAAP-001-R-01 and LHAAP-003-R-01. Five-year reviews are planned for LHAAP-004-R-01. The five-year reviews will ensure that the site is inspected, LUCs are still in place and that any new data regarding the condition of the site is reviewed.

MMRP Previous Studies

	Title	Author	Date
2001			
	U.S. Army Active/Inactive Range Inventory, Longhorn AAP	Army Materiel Command	AUG-2001
2002			
	CTT Range Inventory		JAN-2002
2003			
	Phase 3 Army Range Inventory at Longhorn Army Ammunition Plant	e2M	MAY-2003
2005			
	Final Site Inspection Report, Military Munitions Response Program Site Inspection, Munitions Response Sites	e2M	JUN-2005
2006			
	Final Work Plan Engineering Evaluation/Cost Analysis at the Longhorn Army Ammunition Plant	CAPE	MAR-2006
	Draft Operational Range Inventory Sustainment (ORIS) for Longhorn AAP	US Army	NOV-2006
2007			
	Final Engineering Evaluation/Cost Analysis at the Longhorn Army Ammunition Plant	CAPE	OCT-2007
2008			
	Final Explosives Safety Submission - Munitions and Explosives of Concern Removal Action	USACE, Huntsville	FEB-2008
	Final Work Plan for MEC Removal Action at Former LHAAP LHAAP-001-R(Site 27) and LHAAP-003-R(Site 54)	EOD Technology, Inc.	JUL-2008
2009			
	Final EE/CA Former Pistol Range	Shaw Environmental, Inc.	FEB-2009
	Final Site-specific Final Report for MEC Removal Action, LHAAP-001-R(Site 27) and LHAAP-003-R(Site 54)	EOD Technology, Inc.	SEP-2009
2010			
	Final Completion Report Non-Time Critical Removal Action at the Former Pistol Range	Shaw Environmental, Inc.	JAN-2010
	Final Proposed Plan for the Former Pistol Range	Shaw Environmental, Inc.	JAN-2010
	Final ROD, Former Pistol Range	Shaw Environmental, Inc.	SEP-2010

LONGHORN ARMY AMMUNITION PLANT

Non-BRAC Excess

Military Munitions Response Program
Site Descriptions

Site ID: LHAAP-001-R-01
Site Name: SOUTH TEST AREA / BOMB TEST AREA

STATUS

Parcel: South Test/Bomb (FWS) (72 acres)

Regulatory Driver: CERCLA
MRSPP Score: 04

Contaminants of Concern: Explosives

Media of Concern: Groundwater, Soil

Phases	Start	End
PA	200202	200305
SI	200402	200506
RI/FS	200503	201409
IRA	200710	200904
LTM	201503	204309

RIP Date: N/A

RC Date: 201409

SITE DESCRIPTION

This site of approximately 79 acres is also known as environmental site LHAAP-027 and is located southeast of Avenue P and the magazine area, at the end of 70th street, near the southern boundary of LHAAP. The site was constructed in 1954 and used by Universal Match Corporation to test photoflash bombs that were produced at the facility until about 1956. The bombs were tested by exploding them in the air over an elevated, semi-elliptical earthen test pad. Bombs awaiting testing were apparently stored in three earth-covered concrete bunkers. The bombs tested were 150-pound M120/M120A photoflash bombs, filled with photoflash powder and containing a black powder booster charge for bursting the bomb with a timed nose fuse.

The location of the site, for this purpose, was not ideally suited to the task, as fragments from this testing landed beyond the installation boundary. By June 1954, static testing of photoflash bombs had been discontinued because of the possibility of damage and injuries beyond the installation boundary. During the late-1950s, illuminating signal devices were also demilitarized within pits at this site. During the early-1960s, leaking production items were demilitarized in the area. The May 1997 final RI report for Group I sites indicates approximately 52,000 one-half and one-pound photoflash cartridges were demilitarized at the site in the early-1980s.

In 1982, investigations included installation and sampling of two wells and three shallow soil samples. Explosives, metals, chloride and sulfate were detected above background levels in the soil samples. In January 1998, an NFA ROD was signed by the USEPA, based upon the site-specific risk analysis for human and ecological exposure to the contaminants of potential concern for the site.

In 2004, the Explosive Ordnance Disposal (EOD) unit at Fort Polk blew in place (BIP) one 155 mm white phosphorous (WP) round. The identification of this round as a live 155 mm WP round is suspect. Plexus, in the 2005 environmental baseline survey (EBS) (page 46), states that "confirmatory sampling (CS) WP operations at LHAAP were assembly and packout operations only; no loading of these materials was conducted at the site. The WP rounds were stored and worked in the east line area of Plant 2 [US Army Toxic and Hazardous Materials Agency (USATHAMA), 1980]." Testing of the payload at LHAAP would not be part of the mission, since it was not manufactured at Longhorn. Others indicate that it was a 105 or 81 mm smoke round.

A reported demolition site was identified on the northwest perimeter of this site. This was added to the investigation. In FY2008 an EE/CA report was completed, approved and signed. In October 2007 the report was finalized. An IRA has been funded with the final ESS completed in March 2008. The removal action was completed in 2009. The ROD is delayed until dispute is resolved with EPA. The ROD will include limited groundwater monitoring for perchlorate and LUCs of restrictions against digging and residential use and sign maintenance. The costs for the ROD and RD are captured under the PBA. Five-year reviews are required.

CLEANUP/EXIT STRATEGY

Site ID: LHAAP-001-R-01
Site Name: SOUTH TEST AREA / BOMB TEST AREA

[redacted]

Five-year reviews are planned for this site. These five-year reviews will ensure that the site is inspected and that any new data regarding the condition of the site is reviewed. The LUCs are in place and will be formally enforced upon ROD signature.

Site ID: LHAAP-003-R-01
Site Name: GROUND SIGNAL TEST AREA

STATUS

Parcel: Ground Signal Test (FWS) (80 acres)

Regulatory Driver: CERCLA
MRSPP Score: 04

Contaminants of Concern: Explosives

Media of Concern: Groundwater, Soil

Phases	Start	End
PA	200202	200305
SI	200402	200506
RI/FS	200503	201409
IRA	200710	200904
LTM	201503	204309

RIP Date: N/A

RC Date: 201409

SITE DESCRIPTION

This site, also known as environmental site LHAAP-054, encompasses approximately 80 acres and is located in the southeastern portion of LHAAP. Starting in April 1963 the site was used intermittently for aerial and on-ground testing and destruction of a variety of devices, including red phosphorus smoke wedges, infrared flares, illuminating 60 and 81 mm mortar shells, illuminating 40 to 155 mm cartridges, button bombs, and various types of explosive simulators. The site was also used intermittently over a 20-year period for testing and burnout of rocket motors from Nike-Hercules, Pershing, and Sergeant missiles. Around 1970, one of the Sergeant rocket motors exploded in an excavated pit near the center of the site. Debris was reportedly placed in the resulting crater and backfilled. From late-1988 through 1991, the site was also used for burnout of rocket motors in Pershing missiles destroyed in accordance with the INF Treaty between the United States (US) and the former Soviet Union. In January 1998 an NFA ROD for hazardous, toxic and radioactive waste (HTRW) under CERCLA was signed. The site is currently undeveloped.

In December 2004, the EOD unit at Fort Polk BIP 105 mm and 81 mm rounds. In FY2008 an EE/CA report was completed, approved and signed. In October 2007 the report was finalized. An IRA has been funded with the final ESS completed in March 2008. The removal action was completed in 2009. The ROD is delayed until dispute is resolved with EPA. The ROD will include limited groundwater monitoring for perchlorate LUCs of restrictions against digging and residential use and sign maintenance. The costs for the ROD and RD are captured under the PBA. Five-year reviews are required.

CLEANUP/EXIT STRATEGY

Five-year reviews are planned for this site. These five-year reviews will ensure that the site is inspected and that any new data regarding the condition of the site is reviewed. The LUCs are in place and will be formally enforced upon ROD signature.

Site ID: LHAAP-004-R-01
Site Name: PISTOL RANGE

STATUS

Parcel: NONE

Regulatory Driver: CERCLA
MRSPP Score: No longer required

Phases	Start	End
PA	200809	200902
RI/FS	201005	201008
IRA	200912	201001
LTM	201201	204309

RIP Date: N/A

RC Date: 201008

SITE DESCRIPTION

The former pistol range was known to have been used by LHAAP security personnel for small arms target qualification and recertification. The pistol range was established in the 1950s and used intermittently through 2004. Site investigation results identified areas where the surface and near surface soil was contaminated with lead at concentrations that exceeded the TCEQ soil MSCC for industrial use. A non-time critical removal action was completed. An NFA ROD was finalized in August 2010. A notification (not a remedy or LUC) has been filed in Harrison County, TX stating that the site is suitable for non-residential use in accordance with Texas Administrative Code Title 30 §335.566. A five-year review report in the form of a letter stating the use of the site remains non-residential is required.

CLEANUP/EXIT STRATEGY

The LTM in the form of five-year reviews is required.

MMRP Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
LHAAP-002-R-01	STATIC TEST AREA	200811	A no action decision document signed in 2008.

MMRP Schedule

Date of MMRP Inception 200202

Past Phase Completion Milestones

2003	
PA	(LHAAP-002-R-01 - STATIC TEST AREA, LHAAP-003-R-01 - GROUND SIGNAL TEST AREA, LHAAP-001-R-01 - SOUTH TEST AREA / BOMB TEST AREA)
2005	
SI	(LHAAP-001-R-01 - SOUTH TEST AREA / BOMB TEST AREA, LHAAP-002-R-01 - STATIC TEST AREA, LHAAP-003-R-01 - GROUND SIGNAL TEST AREA)
2008	
RI/FS	(LHAAP-002-R-01 - STATIC TEST AREA)
2009	
IRA	(LHAAP-001-R-01 - SOUTH TEST AREA / BOMB TEST AREA, LHAAP-003-R-01 - GROUND SIGNAL TEST AREA)
PA	(LHAAP-004-R-01 - PISTOL RANGE)
2010	
IRA	(LHAAP-004-R-01 - PISTOL RANGE)
RI/FS	(LHAAP-004-R-01 - PISTOL RANGE)

Projected Phase Completion Milestones

See attached schedule

Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates

To Be Determined

Final RA(C) Completion Date:

Schedule for Next Five-Year Review: 2013

Estimated Completion Date of MMRP at Installation (including LTM phase): 204309

LONGHORN ARMY AMMUNITION PLANT MMRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY14	FY15	FY16	FY17	FY18	FY19+
LHAAP-001-R-0	SOUTH TEST AREA / BOMB TEST AREA	RI/FS						
		LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-003-R-0	GROUND SIGNAL TEST AREA	RI/FS						
		LTM						
SITE ID	**SITE NAME**	**PHASE**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19+**
LHAAP-004-R-0	PISTOL RANGE	LTM						

Community Involvement

Technical Review Committee (TRC): 199203

Community Involvement Plan (Date Published): 200309

Restoration Advisory Board (RAB): RAB established 2004

RAB Adjournment Date:

RAB Adjournment Reason:

Additional Community Involvement Information

While the Army leads the Installation Restoration Program (IRP) at LHAAP, a close working relationship with the regulatory community has been developed. The local public community has been involved in the past through the TRC process.

In April 1996 and in 1998 formation of a RAB was attempted; however, community involvement in the TRC process was determined to be sufficient for community needs. In September 2004, in response to public notices and private mailings, a group of citizens attended a RAB-interest meeting. Enthusiastic support resulted in the first RAB meeting in December 2004. It was well attended. The RAB has created its own symbol, finalized its charter, and elected a co-chair. The RAB meets quarterly and public meetings are held for each PP. These will continue as needed.

An update to the Community Involvement Plan has been drafted in 2011 and will be finalized in 2013.

Administrative Record is located at

Longhorn Army Trailer
Groundwater Treatment Plant Compound
Highway 134 and Spur 449
Karnack, TX 75661

Information Repository is located at

Marshall Texas Library
300 South Alamo
Marshall, TX 756

Current Technical Assistance for Public Participation (TAPP): 199909

TAPP Title: Grnd/surf water migration

Current Technical Assistance for Public Participation (TAPP): 200103

TAPP Title: TAPP2

Potential TAPP: N/A

DEPARTMENT OF THE ARMY
LONGHORN ARMY AMMUNITION PLANT
POST OFFICE BOX 220
RATCLIFF, AR 72951

November 25, 2013

DAIM-ODB-LO

Mr. Rich Mayer
US Environmental Protection Agency
Superfund Division (6SF-AT)
1445 Ross Avenue
Dallas, TX 75202-2733

Re: Draft Final Post Screening Investigation Report, LHAAP-18/24,
Longhorn Army Ammunition Plant, Karnack, Texas, November 2013

Dear Mr. Mayer,

The above-referenced document is being transmitted to you for your records. The document was prepared by AECOM on behalf of the Army.

This Draft Final document reflects discussion and comment resolution occurring on November 14, 2013 at the site. In accordance with the Federal Facilities Agreement for Longhorn, the Draft Final will be finalized when the Feasibility Study is finalized.

The point of contact for this action is the undersigned. I ask that Dave Wacker, AECOM's Project Manager, be copied on any communications related to the project. I may be contacted at 479-635-0110, or by email at rose.zeiler@us.army.mil.

Sincerely,

Rose M. Zeiler, Ph.D.
Longhorn AAP Site Manager

Copies furnished:
A. Palmie, TCEQ, Austin, TX
D. Vodak, TCEQ, Tyler, TX
P. Bruckwicki, Caddo Lake NWR, TX
R. Smith, USACE, Tulsa District, OK
A. Williams, USACE, Tulsa District, OK
M. Plitnik, USAEC, San Antonio, TX
D. Wacker, AECOM – San Antonio, TX (for project files)

DEPARTMENT OF THE ARMY
LONGHORN ARMY AMMUNITION PLANT
POST OFFICE BOX 220
RATCLIFF, AR 72951

November 25, 2013

DAIM-ODB-LO

Ms. April Palmie
Texas Commission on Environmental Quality Superfund Section – MC-136
Remediation Division
12100 Park 35 Circle, Bldg D
Austin, TX 78753

Re: Draft Final Post Screening Investigation Report, LHAAP-18/24,
Longhorn Army Ammunition Plant, Karnack, Texas, November 2013

Dear Ms. Palmie,

The above-referenced document is being transmitted to you for your records. The document was prepared by AECOM on behalf of the Army.

This Draft Final document reflects discussion and comment resolution occurring on November 14, 2013 at the site. In accordance with the Federal Facilities Agreement for Longhorn, the Draft Final will be finalized when the Feasibility Study is finalized.

The point of contact for this action is the undersigned. I ask that Dave Wacker, AECOM's Project Manager, be copied on any communications related to the project. I may be contacted at 479-635-0110, or by email at rose.zeiler@us.army.mil.

Sincerely,

Rose M. Zeiler, Ph.D.
Longhorn AAP Site Manager

Copies furnished:
R. Mayer, USEPA Region 6, Dallas, TX
D. Vodak, TCEQ, Tyler, TX
P. Bruckwicki, Caddo Lake NWR, TX
R. Smith, USACE, Tulsa District, OK
A. Williams, USACE, Tulsa District, OK
M. Plitnik, USAEC, San Antonio, TX
D. Wacker, AECOM, San Antonio, TX (for project files)

Responses to EPA Comments on
Draft Post Screening Investigation Report
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Respondent: Marwan Salameh/Dave Wacker, AECOM

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1	6-1	References	The reference section appears to be missing at least one page or more. Please revise the report to include all references.	C	Missing references were added to the revised report.	
2	Viii	Last Paragraph	Location accessibility issues caused problems for AECOM to conduct CPT in areas described in the work plan. The secondary efforts by AECOM to collect data in these areas of accessibility issues are commended by the EPA. However, EPA would appreciate a notification when there are circumstances that cause deviations from the approved work plan.	C	Acknowledged. Multiple field variances have been identified and processed for Army and agency review. This did not happen in this specific circumstance, and we will work to complete this notification in the future.	
3	ix	2nd sentence	The word "Lithologic" should be in lower case.	C	Comment incorporated as suggested.	
4	ix	Field Investigation Findings, Lithology, 1st sentence	The page before states that the shallow zone is considered to be depths of up to 50 feet while on this page it states that the upper lithology is about 45 feet. Please be consistent. In addition, the text indicates that there are semi-consolidated sandstones and shales within the Wilcox. However, based on the logs reviewed on site lithology there does not appear to be any sandstones or shales encountered during drilling. Please clarify or explain the differences.	C E	The depth of the shallow zone is approximately up to 45 feet below ground surface. This information has been updated to be consistent throughout the report. Bedrock of the coastal plain over the east and gulf coasts is typically referred to generally as semi-consolidated. Some degree of lithification takes place over 40 million years (Eocene Wilcox), though it may be subtle and not notable from a logging perspective. The description remains accurate.	
5	x	2nd paragraph, last sentence	Please see comment 76 below**.**	C	Please see Response to Comment 76.	
6	x	Bulleted Statements	**(a)** Please include where the location of the water table was encountered in each of the borings under these bullets (Table 3-6 does an excellent job of showing the reader where there is saturation and contamination, but it is shown much later in the report). ***(b)*** Even though in most cases the groundwater concentrations were much higher than the soils, why are soils (unsaturated soils) not	C	(a) Added depth to saturation. (b) Concur that soils will act as secondary sources when the concentration below the "source" soil has a lower	

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			considered a continual (secondary) source when the concentrations in some cases exceed clean up levels? The results in Table 3-3 indicate that there are cases where a soil sample may have been collected in saturated conditions. The actual COC result could have a COC concentration above a groundwater standard, but below a soil clean-up standard. The results are flagged as detected, but not above a standard. Flagged (highlighted) data for this table and other tables need to be checked to make sure they are flagged correctly. ***(c)*** What does a soil sample represent when it is collected in saturated conditions? Is the contaminant from the soil or the groundwater or both? The samples that were collected in saturated conditions should be flagged in Table 3-3. ***(d)*** Soil concentrations from the intermediate zones between the shallow and deeper zones could be shown within these bullets to further support that contamination mainly resides in the saturated zones and their appears to be an increase in contamination closer to and within the saturated zone. ***(e)*** Last bullet**:** EPA agrees that there is a progression of contamination present in this borehole from 7 to 27 feet. However, the		concentration. This was observed and noted for 18CPT09 but not for the other locations identified in this section. Other locations could become secondary sources when the concentrations of CoCs in deeper soil and groundwater become lower in response to groundwater remediation, for example. This is the reason we indicated that "at this time" these soils are not considered secondary sources. Table 3-3 contains soil samples collected from both saturated and unsaturated zones. The results were compared to GWP-Ind MSC in this table and were flagged as such. (c) A saturated soil sample represents total CoC concentrations of the sample inclusive of soil and water. Since free water likely drains during sample collection, the concentration represents CoC present on soil and hygroscopic water tied to the soil. The soil samples are flagged in Tables 3-3 and 3-6 to indicate sample collection condition and location. (d) Two soil depth intervals are presented in each of bullets that provide the information requested. With the addition of depth of saturation, it is clear contamination primarily resides in the saturated zone. More detailed information is presented in Table 3-6. (e) Saturation at this location is approximately 12.5 feet bgs. Therefore, the 17-18 ft bgs is within the saturated zone. The concentration at 27 feet bgs is one to two orders of magnitude greater for VOCs and perchlorate. Therefore, the soil at a depth of 17 to 18 feet bgs is not a source soil.	

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			samples collected from this borehole in the 17-18 feet range are well above soil standards for TCE and methylene chloride, thus a potential soil source area. Were the soils saturated in this borehole?			
7	xi	2nd Pararaph	Based on findings at borehole 18CTP27, it is assumed that monitoring well 126 will be sampled for methylene chloride (MC) in addition to the TCE and perchlorate that is mentioned in this paragraph. Please add MC to text.	C	Text was revised to include MC.	
8	xi	Groundwater Gradients, 3rd Paragraph	*"The upward gradient is most likely associated with groundwater extraction."* EPA would like to discuss this interpretation in more detail with either a conference call or meeting. This statement needs to be supported by more text and data. Is there a flow meter or any other data (besides instantaneous water levels) to support this interpretation? If the ICT's are sitting on top of clay above the Wilcox, then this would infer that water is being moved up from the Wilcox through the clay. Treated water has been injected or land applied on the site since 2007, which at times is a continuous recharge. The head difference could be due to the downward movement into deeper zones causing a confined zone head effect. The question is how long would it take the system to come to equilibrium after no additional water is added to the system? Monthly water levels are being collected at the site, but continuous water-level data would be useful to determine water-level data over a range of hydrologic conditions and to determine changes in potentiometric surface during pumping and climatic conditions.	C	The vertical gradient is implied based on water level in co-located wells screened in different vertical zones. Extraction of groundwater lowers the shallow zone potentiometric table and results in an implied upward vertical gradient. Recharge via reinjection or rainwater/irrigation water infiltration has the opposite effect. Since the shallow zone is unconfined for the most part, the effect of these activities on the water table and hence the vertical gradient is rapid. The implied vertical gradient does not necessarily mean that groundwater and contaminants are moving downward with a downward vertical gradient and upward with an upward vertical gradient due to the presence of a fine-grained soil, the Wilcox Clay, in a large area of the site, although over an extended head difference, potential seepage of water and contaminants could occur, particularly if secondary porosity (macropores) in the clay exists though it was not noted from sample logs. However, with the completion of the installation of new Wilcox Formation wells that are co-located with shallow zone wells as part of the recently completed field effort, and since groundwater gauging at LHAAP-18/24 occurs on a monthly basis, the information EPA is requesting will be obtained through upcoming planned monitoring.	

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9	xii	Editorial Comment	DCE first used needs to be defined on acronym page and in text.	C	Acronym added to acronym page and defined upon first use.	
10	1-1	Editorial Comment	CERCLA, BRAC, AEC, R, PSI, WP, and TIP need to be added to acronym comment.	C	Acronyms added as needed. Could not find R or TIP as acronyms used in the document. The tip resistance of the CPT was discussed but this is not an acronym.	
11	1-1	See Comment 1	The AECOM reference could not be confirmed since the document is missing most of the reference section. References will be further reviewed after modifications have been made to the document from comments.	C	The reference section has been updated.	
12	1-2	2nd Pargraph, Last Sentence	EPA suggests using the word "substantial" instead of "significant" since significant is normally used in reference to statistical analysis.	C	Word changed as suggested.	
13		Figure 1-2	Please add Saunders Branch label on Figure 1-2 since it is mentioned in the text on page 1-2.	C	The label for Saunders Branch was added to Figure 1-2.	
14	1-3	Section 1.2.1, 2nd paragraph, 1st sentence	Please add a space between the words' update" and "on".	C	The referenced section should be Section 1.2.2, 2nd paragraph, 1st sentence and the space has been inserted.	
15		Figure 1-4	The legend for the figure is confusing and needs some modifications. First, each label needs to be spelled out in more detail, for instance, what is a PL, SWTR, and TISS (could not find one on the Figure). Second, the colors and symbols do not match what is on the figure, for instance PZ-10 appears to be a soil location when it is most likely a piezometer. In addition, there are other symbols listed in the legend that do not appear on the Figure (ice SLDG). Please add a label to Harrison Bayou.	C	Modifications to clarify the legend and spell out acronyms have been completed, noting that symbols and their definitions were obtained from existing data bases.	

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16	1-4	Figure 1-2	Figure 1-2 shows the potable water wells onsite, but does not show the potable wells located along the boundaries of the facility. Water supply well number 3524402, due northeast of the site, would be the closest well to the site and the most likely to be affected if the plume would migrate offsite. Please see the figure *Offsite Water Supply Wells* produced by Shaw, document no. 00076389. In addition, on page 1-3, the text indicates there are five active water supply wells in the Wilcox Formation. These five wells should be identified by name and number within the text and shown on Figure 1-2.	C/E	All public water supply water wells are included on Figure 1-2. No additional changes have been made based upon this comment.	
17	1-4	Appendix B	Appendix B is empty and refers a reader to the Installation Wide Work Plan for SOPs. Either add pertinent SOPS to Appendix B or remove Appendix B.	C	Appendix B was removed and a reference to the Draft IWWP was added where appropriate.	
18	1-5	First Bullet	Please change title to Quality Control Summary Report and add an enclosed CD for Laboratory Analytical Reports.	C	Comment incorporated as suggested.	
19		Figure 1-5	There are some contour lines that do not match up with the elevations reported by the wells. For instance, AWD-1 shows an elevation of 174.22 feet, but the contour is inside the 173 foot contour (Please look at well 120 as well). In addition, there appears to be a part of a contour line around MW-05 which is probably left over from some previous contouring. EPA suggests removing the intermediate and deep wells from the Figure that were not used to contour shallow groundwater. In addition, there are several wells that are shown as shallow, but there is not a water elevation associated with them. Please add a text to the legend to explain why the wells were not used for contouring.	C/D	Agree, AWD-1 is incorrectly mapped though 120 is correctly mapped. We also agree with EPA's comments on other aspects of this map. However, this map is taken as is from previous work to reflect the old conceptual site model (CSM) with shallow, shallow/intermediate, intermediate, and deep wells. We added a reference to identify the author of the map, and added new descriptors for well definition in the legend according to the new CSM in response to this comment.	

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20		Figure 1-6	Why are there cross sections on this Figure? There is no mention of these cross sections in the text referring to this Figure. EPA suggests removing the cross sections and shallow wells not used to determine the flow direction.	D	The figure is based on previous work by others. Changes to these historical existing figures are not planned. Nonetheless, the cross-sectional lines were removed.	
21	2-2	2.2.2, 1st sentence	The text states that 30 locations were drilled or sampled, but the reviewer could only find 29 locations on Figure 2-1. Please verify the number of locations.	E	Clarification. There are 30 locations where drilling activities occurred. Figure 2-1 identifies where soil samples were logged/sampled and does not show 18WW22 location because no soil samples were collected or logging was completed. 18WW22 is shown on Figure 2-2 which is a well location map. Text was added in this paragraph to provide clarification.	
22	2-2	2.2.2, 2nd to last sentence	The borehole depths listed range from 29 to 102 feet bgs. Borehole 18CPT09 only goes to 25 feet. Please verify the depth range of the boreholes.	D	While the Geoprobe borehole was driven to only 25 feet bgs, the CPT for 18CPT09 went to a depth of 49 feet bgs which was used to identify the depth of investigation at this location.	
23	2.2.2.1	2nd paragraph	The text states that borehole 18CPT01 total depth was 69 feet bgs. The CPT log in the Appendix only goes to 44 feet. Please verify. In addition, well logs from 18CTPMW01DW indicate the CPT was used for identification of lithology from 42 to 69 feet on March 6, 2013. However, there is not a CPT log for this location or a date in the Appendix. Please include the information for the CPT and modify the text where needed. The well nest in this location covers intervals from 33.4 to 38.4, 53 to 63, and 88 to 98 feet. The outer casing was installed to avoid cross contamination between the 40 and 53 foot interval, but one would have to assume there is contamination in this cased off section. Please note that there were MC hits from a discrete hydro punch sample in the 69 to 70 foot interval and the 88 to 98 foot interval that both exceeded the MCL.	C	CPT at 18CPT01 was initially driven to 44 feet as indicated on the log shown in Appendix A. However, after installation of surface casing at this location, the CPT was driven into the upper Wilcox to a depth of 69 feet bgs. Appendix A now includes the longer CPT log.	
24		Appendix A	EPA suggests pairing up the CPT logs with the well logs, to reduce review time. The nomenclature of the wells, soil boreholes, etc. should be explained somewhere in the text, so a reader can understand which logs, CPTs, and other environmental information align together.	C	Wells/CPT logs are paired up as Appendix A. Table 2-2 was updated to link borings with wells and text was added referencing Table 2-2 for this information.	

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25	2-3	2.2.2.2 and 2.2.2.3	The text in these sections indicates that soil samples were collected by both DPT and HSA, but in several cases the text lists the same locations (i.e., 18CPT02). How is that possible? Please clarify.	C	Locations 18CPT02, 18CPT03, 18CPT05, 18CPT09, 18CPT13, 18CPT20, 18CPT21, and 18CPT 25 through 18CPT27were collected by DPT and locations 18CPT01, 18CPT06 through 18CPT08, 18CPT10, and 18CPT12 were collected by HSA.	
26	2-3	2.2.2.5, 1st Sentence	Please change 80 to 55. The PSI work plan (Table 2-2) states that up to 55 soil samples would be collected. AECOM collected 58, thus going beyond the 55 soil samples listed in the work plan.	D	The Army' s investigation at LHAAP-18/24 planned "up to 80" sample locations and 58 were actually collected. No changes are recommended based upon this comment.	
27	2-4	References to Appendix B	Please cite the location within the last approved Installation Wide Work Plan instead of sending a reader to an empty Appendix that refers you to another document.	C	Appendix B was removed and a reference to the Draft IWWP was added where appropriate.	
28	2-4	3rd Paragraph	There was no mention of the collection of geotechnical data within the report. The collection of geotechnical data to further characterize the site is commended by the EPA, but documentation of the geotechnical sampling should be included in the report. During a site visit (during drilling) EPA witnessed a portion of a split-spoon core being wrapped up in aluminum foil and placed into a plastic bag. EPA asked the sampler why he collected that sample and the sampler stated it was for geotechnical analysis. Permeability is mentioned within this PSI report, as one of the geotechnical analysis which was conducted at selected locations. Typically, permeability samples are collected by using a piston hammer (140-lb) on a drill rig to drive in thin walled tubes (Shelby tubes), so undisturbed core samples are collected for analysis. Based on field observations of the collection of the soil for permeability analysis, how was this core not disturbed? In addition, the last version of the Installation Wide Work Plan does not include the ASTM methods in the sample acquisition plan. Thin walled collection information is included in the subsurface soil sampling SOP. EPA would like to discuss the collection of geotechnical data in more detail during a conference call to discuss these comments.	D	Geotechnical sample collection was included in Table 2-1 in the PSI work plan, and is discussed in Section 2.2.2.5 of the Data Gap Report. Although, SOP for geotechnical sample collection was not developed, the method of geotechnical sample collection minimized sample disturbance and the results are representative of type of soil encountered. The geotechnical results fall within typical ranges for the type of soils identified. The method used for geotechnical soil sample collection followed ASTM standard D6151-08 (Standard Practice Using Hollow Stem Augers for Geotechnical Exploration and Soil Sampling). Below is a summary of sample collection methodology. For collection of core samples, we used a 5-foot continuous split spoon sampling device (approximately 3.25" internal diameter) which is placed in the hollow stem augers approximately an inch or so below the auger teeth. The continuous split spoon sampling device does not rotate as the augers move and is pushed into the subsurface. Since the tip of the continuous split spoon is ahead of the auger teeth, the soil sample is undisturbed	

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					as it is driven into the continuous split spoon. The soil sample is then carefully removed (intact) from the split spoon. (easier for clayey soils) To keep from losing moisture, the soil sample was wrapped in plastic, and for added strength wrapped in aluminum foil. A sealable plastic bag was used to store the sample. All samples were collected using continuous split-spoon sampler. All sample quality was of an acceptable integrity for the geotechnical testing assigned except for boring 18CPTMW-23 25'-26'. This sample was poorly graded sand with silt and typically it is hard to obtain a truly undisturbed sample in sands, (sometimes this holds true for clayey sands with a low plasticity index). This would have only affected the density (unit weight) test results for these types of samples. TOC and % solids analysis for this sample is not impacted by the integrity of this sample. However, porosity and bulk density can be impacted by the integrity of this sample. These parameters are flagged as such for this sample in Table 3-8.		
29	2-5	Last complete paragraph, last sentence	Please change the word "was" to "were".	C	Comment incorporated as suggested.	
30		Figure 2-2	The legend identifies the Wilcox wells as a reddish orange, but the actual Wilcox well locations appear to be gold. Please revise the legend with proper colors.	C	Reviewed and updated colors.	
31	2-7	2.2.3.4	Please add dissolved oxygen to list of water-quality parameters collected during groundwater sampling.	C	Added dissolved oxygen to the field parameters.	
32	2-7	2.2.4.1, 2nd Paragraph	Please change "deionized water" to commercially purchased distilled water since there is a difference between the two types of waters. In addition, as previously mentioned in a field method review, blank samples for pumps should include the pumping of water through the hoses, not by	C	Comment noted. Deionized water was changed to distilled water.	

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			pouring distilled water over the equipment. Pouring distilled water over core barrels, soil sampling devices, etc. is acceptable. Please note the VOC blanks are typically collected using certified organic free water and in this case distilled water is being used for VOC blanks. Equipment blanks so far have shown no cross contamination, but please keep in mind that there is a risk if a blank shows contamination. If this occurs, it will not be known if the contamination came from the distilled water or due to improper decontamination of equipment.			
33	2-7		EPA recommends adding a paragraph or two describing the findings of the QA/QC. A summary of replicate relative percent differences and any contaminants found in blanks should be discussed somewhere in the text. The addition of that section would help support the collection of technically defensible data. In addition, EPA recommends referencing Appendix E Quality Control Summary Report within this section. EPA commends the Army for adding the QC report to this document.	D	This section presents the methodology not the results/findings. Appendix E (now Appendix D) contains a quality control review of the analytical results. Appendix E (now Appendix D) is referenced as appropriate in various subsections of Section 3.0.	
34	2-8	2.3.1.2, Last Sentence	Please see comment.	D	No changes made based upon this comment.	
35	2-8	2.3.1.3	The installation of shallow Wilcox wells went beyond the original work plan; EPA recognizes this as a good decision by AECOM to further delineate the vertical extent of the COCs at this site.	C	The decision to install deeper Wilcox formation wells was made by the Army. No response required although please note that requests in other EPA comments on this document for additional investigation activities, sample collections, or well installation have been deferred to the Remedial Design partially as result of having completed additional work as part of the PSI.	
36	2-9	2.3.4.3	EPA recognizes that the work completed here is in addition to the original work plan (due to access issues) and the alternative is acceptable. Please include the well number in this section.	C	Well identification added.	

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37	2-10	2.3.5.3	Please see comment 36. Please include the well numbers and an explanation why a well was not placed at 18CPT17, i.e. (no detections of any COC's).	C	Well identification and location detail added.	
38		Table 2-1, First data gap	Please add in EW-1 as injection point with the ICTs. The surface application of treated water could be included as well.	C/D	Added rainwater and irrigation water to the water that could result in change in groundwater levels. However, EW-1 is an extraction point not an injection point.	
39		Table 2-1, 2nd data gap	Please include the other COCs at the site including TCE and perchlorate. Borehole 18CPT02 indicated contamination down to the base of the boring (45 feet). However, no additional data was collected below this location to determine if COC's were found in the Wilcox. Please explain.	C D	Added TCE and perchlorate as suggested. MIP log for 18CPT02 shows DELCD peaks up to approximately 42 feet bgs (this is where the sample was collected for laboratory testing at 41-42 feet bgs) but shows steady response thereafter at the level of the peak base, implying signal creep rather than presence of CoCs below 42 feet bgs. A very similar pattern was observed for the FID response.	
40		Tble 2-1, Data gap 7	Please see comment 28.	D	See response to comment 28.	
41		Table 2-2	While EPA is satisfied with the Table overall, the screen intervals are most likely incorrect (9.5 foot screen (could be just assuming 3 inch gap between the bottom of the string and top, not typically done).	D	The screen intervals are correct. The 0.5 foot at the bottom of the screen is related to the well cap at the bottom of the well casing. Measurements were taken from the bottom of the screen to the bottom of the cap. The distance between the bottom of screen and bottom of cap was about 0.5 feet. The screen was measured with a folding ruler at 9.5 feet per 10 foot segment of casing. The distance from top of screen of a 10 foot segment of casing to bottom cap was 10 feet. The screen intervals in the text were changed to match Table 2-2.	

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42	3-3	1st Paragraph, 2nd Sentence	Please add a space between the words "than" and "15,000".	C	Comment incorporated as suggested.	
43	3-6	3.1.3, 1st Paragraph	EPA agrees that during sampling no injection or irrigation was occurring, however; due to past injections, irrigations and the addition of working pumps, the potentiometric surface and vertical gradient can be variable. Continuous long-term monitors are recommended to determine changes in water levels during rainfall events and irrigation events.	E	Since the installation of a larger number of Wilcox Formation wells co-located with shallow zone wells, and since we already collect monthly gauging events, the data EPA requests will become available in the near future as monitoring continues in order to increase understanding of the effect of natural and artificial forces on groundwater levels.	
44	3-9	Last Complete Paragraph	(a). Soil data collected at Borehole 18CPT21 at 48 feet indicated a source. Borehole 18CPT21 soil data indicate high contamination throughout the borehole. Borehole 18CPT25 just north of 18CPT21 shows increasing TCE with depth, but no MC. Based on the map which includes these locations, it appears that borehole 18CPT25 is located on top of the cap (topographically 10 feet or so higher than 18CPT21). The deepest soil sample taken in borehole 18CPT25 was at 31 to 32 feet. If you compare that to the soil sample taken at 48 feet at borehole 18CPT21, then there is the potential of at least 20 feet or more difference in elevation between these units, thus borehole 18CPT25 sample is much shallower than the borehole 18CPT21 sample. The soil sample and lithologic units need to be compared to a common datum when discussed in the text (i.e., as in Cross-section F-F, the cross section does show that 18CPT21 appears to be higher in elevation than 18CPT25, but based on figure 2-1, 18CPT25 appears to be in the area of the cap where it may be higher than 18CPT21). EPA suggests further discussion on this comment during a conference call for clarification. In addition, borehole 18CPT25 MIP results does not identify as high of contaminant concentrations as those found in borehole 18CPT21. (b). AECOM attempted to collect discrete groundwater samples at several locations within borehole 18CPT21.	D	a) 18CPT21 MIP record does not imply the presence of contamination throughout the borehole. The discrete soil samples reported in Tables 3-3 and 3-6 were collected from areas exhibiting a high DELCD MIP response. Between approximately 29 feet bgs and 47 feet bgs, there was no MIP response for DELC or PID with two small peaks for the FID. This large distance with no MIP response is indicative that a source is not present throughout the borehole. Instead, contamination from the ground surface has migrated but was contained to within 30 feet from current ground surface (top of UEP cap) at 18CPT21. The absence of MIP response to a depth of approximately 47 feet bgs followed by a response between 47 and 51 feet bgs indicates that the response at depth is sourced from groundwater and not from the soil above. Survey data indicate that ground surface at 18CPT21 (201.98 ft amsl) and 18CPT25 (201.72 ft amsl) are at the same elevation. Both of these boreholes are near the top of the cap. MIP results for 18CPT25 were lower than MIP response for 18CPT21. This is also clearly reflected in the analytical results whereby the concentrations of VOCs in 18CPT21 are higher than in 18CPT25 as would be expected. b) At some locations, the borehole was left all day or	

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			However, they were only able to collect a sample at the 24-28 bgs interval. The other two attempts at 29-33 feet and 48-52 feet ended up being dry. The same was true for borehole 18CPT25 where several locations were attempted but two out of the three were dry and the one where a sample was collected at 28-32 feet only provided enough volume for one 40 milliliter VOA. Time allowed for collection of water may not have been adequate due to smearing and tight materials (only 1 to 2 hours). It is not uncommon for the fines along a boring wall to form a temporary seal (smear of fines) between the formation and hydro punch screen. If the screen is left in place for at least 24 hours, in many cases, this seal will fail due to hydraulic pressure and water (though low yielding) will collect within the screen interval of the hydro punch allowing for a sample to be collected. EPA recommends waiting overnight, instead of a few hours prior to collection of discrete groundwater samples (especially in the SM and CL lithologic units, where sampling was attempted in these borings).	C	overnight by the Army for groundwater collection but not at the locations identified in the comment. Comment noted for future work at the site.	
45	3-12	3.2.3, 1st Paragraph, last Sentence	The sentence refers to laboratory analytical reports in Appendix E (see page 3-22 as well). Appendix E is a quality control summary report. Please refer reader to the enclosed CD for laboratory reports.	C	Comment incorporated as suggested.	
46	3-20	1st paragraph	EPA agrees that the cap reduces the potential for vertical migration, but what about the rise in water levels from below the cap into the unsaturated zone? Injection, irrigation, and broken pumps (not the case since AECOM has become the operator) could have caused a rise in water levels below the cap, thus, potentially transporting COC's from the unsaturated zone to the groundwater.	C	Agree that increase in groundwater table due to natural or artificial recharge could result in communication between the groundwater and unsaturated zone soil. Fluctuation in groundwater levels will occur but the extraction system and elimination of re-injection should reduce the increase in groundwater fluctuation. The CoC in this area of the site is primarily perchlorate with little to no VOCs (VOC concentrations are 3 orders of magnitude lower than perchlorate concentration). MW-5 downgradient from 18CPT26 contains 27,600 ug/L perchlorate in May 2013 sampling event. The concentration of perchlorate in the soil sample at 18CPT26 (22-23 feet bgs) at the smear zone of the	

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					groundwater table is 100,000 ug/kg. These results indicate a large portion of perchlorate has already migrated to groundwater and/or located within the smear zone (~4 feet above the most recent groundwater table). Therefore, fluctuation of groundwater elevation which is expected will result in continued capture of perchlorate from the soil to groundwater but since the concentration levels between the discrete soil sample and groundwater in MW-5 are comparable, we do not anticipate a major future release of perchlorate from the soil to groundwater due to groundwater level fluctuations.	
47		Figure 3-1	Please check well elevations and contours: There are several wells that appear to be contoured incorrectly. Please see wells 18WW07 and 18CPTMW24**.**	D D/C	18WW07 is contoured correctly with an elevation of 166.35 feet amsl. All other wells in its vicinity have elevations greater than 167 feet amsl. Therefore, this well had its own 167 ft amsl contour line which is drawn correctly via interpolation. Similarly 18CPTMW24 has the lowest groundwater level in this area of the site and the 168 foot contour line represents this condition and attempts to interpolate between this well and C-08 at an elevation of 168.6 foot amsl. A revision to this contour line was made to leave the southern portion undefined and a revised figure is included in the redline Draft.	
48		Table 2-2 and Table 3-1	Please revise the Tables to be consistent in regards to screen length and well ID.	D	Please see response to comment 41. Screen intervals are correct as stated in the tables.	
49		Figure 3-2	Please change the word “Date” to “Data” in the legend	C	Change to Figure 3-2 completed as noted.	
50		Figure 3-5	Please include the date or dates of the sample collection (see Figure 3-2) for this Figure and the other following figures.	C	The date was added to Figures 3-5 through 3-10.	
51		Figure 3-8	Wells MW-14, 188WW02, and 18WW11 were not sampled during the event. Based on the current isopleth map, these monitor wells should be added to future sampling events to provide additional control to properly delineate the southwestern Wilcox TCE plume.	C	Sampling MW-14 and 18WW02 should allow better delineation of extent of TCE in the Wilcox Formation. No impact to the Wilcox Formation in 18WW02 and 18WW11 is observed based on historical TCE results. MW-14 and 18WW02 will be included on some future sampling	

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					events.	
52		Figure 3-9	Borehole 18CPTMW22 (the far southwest corner of site) had a perchlorate detection of 118,000 ug/l, which is the highest concentration detected during this sampling event. There does not appear to be any wells that were sampled for perchlorate or in a good location to determine the southwest extent of this plume. Please provide a path forward in how this newly found detection of perchlorate will be addressed in the future.	C	This location was identified as a new previously unknown area of high perchlorate in the shallow zone. Sampling existing monitoring wells 126 and C-09 will help delineate extent to the south. Monitoring well 17WW08 will also be sampled to delineate the plume to the west. To the southwest a shallow monitoring well adjacent to Wilcox Formation monitoring well C-01 is recommended as part of Remedial Design**.**	
53		Figure 3-10	Please see comment 50.	C	Dates have been added to Figures 3-5 through 3-10.	
54	3-16	First Bullet	Borehole 18CPT05 appears to be between well AWD-2 and AWD-3. MC concentrations in soil were 369,000 ug/kg (25 to 26 feet, saturated), 304,000 ug/kg (31 to 32 feet saturated), and 23,100 ug/kg (39 to 40 feet, saturated). However, according to Figure 3-5, there is not MC detected in the groundwater in this area. TCE detected within the same soil zones is 161,000, 109,000, and 139,000 ug/kg respectively. Figure 3-7 does show this location to have TCE > 1,000 ug/kg. Based on this information, there is a good chance that both the MW-2 MC plume area and the MC western plume could be intermingled. Please explain why the MC isopleth map does not identify MC in groundwater in the vicinity of borehole 18CPT05. In addition, please verify that other areas that identify soil contamination well within the saturated zone also indicate groundwater contamination on the isopleth maps.	C	While we cannot use total soil concentrations to represent groundwater concentrations, the presence of high concentrations of MC and TCE in 18CPT05 soil samples needs to be assessed in the context of distribution of MC and TCE in this area of the site. We cannot simply connect the isoconcentration contour lines without reviewing concentrations in AWD-2 and AWD-3 and without considering the distribution of CoCs between soil and groundwater. AWD-2 and AWD-3 will be sampled in the future to help with this assessment. Additionally, the soil at 18CPT05 is mostly fine-grained and likely represents a high ratio of soil to groundwater partitioning. It is likely that a large mass of MC and TCE is entrapped within fine-grained soil pores and not only partitioned on the soil matrix and will release the CoCs slowly over a long period of time. Review of all other saturated soil concentrations for MC and TCE revealed that the majority of the concentrations fall well within the groundwater isoconcentration contours with a few exceptions, including the exception for 18CPT05 discussed above, noting again that soil and	

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					groundwater concentration do not correlate 1 to 1. • 18CPT07 adjacent to MW21 indicated the presence of < 400 ug/kg TCE but MW-21 had 14,400 ug/L TCE. No change to the groundwater isoconcentration lines needs to be made. This condition indicates groundwater sourcing of TCE. This observation is the opposite of identified at 18CPT05 and confirms that extrapolation of concentrations from one medium to another medium is not advisable. • 18CPT09 adjacent to 18WW06 had TCE concentration of up to 4,260 ug/kg but adjacent wells had TCE < 100 ug/L (18WW06 was not sampled during this event). No adjustment to the groundwater isoconcentration lines needs to be made. 18WW06 will be sampled in some future sampling events. • 18CPT10 adjacent to MW-9 indicated the presence of TCE up to 25,900 ug/kg in the soil but adjacent well MW-9 had a TCE concentration of 2,400 ug/L. The soil concentration varied between 3,140 ug/kg to 25,900 ug/kg and averaged 11,360 ug/kg which falls within equilibrium partitioning of TCE between the soil and groundwater. No adjustment to the groundwater isoconcentration lines is required. • 18CPT27 to the east of MW-9 within the former ACD had an MC concentration of up to 4,950,000 ug/kg (likely in dense-nonaqueous phase liquid (DNAPL) form) but the groundwater contour indicates a concentration of between 10 and 100 ug/L. Similarly TCE concentration in the saturated soil was reported up to 2,830,000 ug/kg (likely in DNAPL form) but the groundwater contour indicates a concentration of between 1,000 and 10,000 ug/L. ICT-12D adjacent to this location has an MC concentration in February	

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					2013 of 44,100 ug/L and TCE concentration was 51,700 ug/L. MW-9 shows concentration of < 5 ug/L for MC and 2,400 ug/L for TCE in May 2013. This indicates that MW-9 located outside the containment area is not representing the groundwater concentrations inside the containment area, which is expected due to the presence of the liner and also confirms that the liner is acting to prevent interaction of groundwater inside the containment with groundwater outside the containment. The concentration reported in ICT-12D represents groundwater from a wide area (approximately 200 feet) and therefore, represents an integrated concentration of high and low localized concentrations within its zone of influence. The soil at 18CPT27 represents the high localized concentration of CoCs. The soil at 18CPT27 is mostly fine-grained and neglecting localized conditions likely represents a 100:1 ratio of soil to groundwater concentrations. It is likely that a large mass of MC and TCE is entrapped within fine-grained soil pores and/or in DNAPL form and not only partitioned on the soil matrix and will release the CoCs slowly over a long period of time.	
55	3-17	3rd Bullet	18CPT soil boring was only completed to 22 feet, where the CPT was completed to 48 feet. The MIP for this hole does not identify contamination below 22 feet, but there was a response on the FID around 36 to 42 feet. Please describe in more detail why no samples were collected in this interval.	D	18CPT09 is located adjacent to shallow zone monitoring wells 18WW06 and Wilcox Formation monitoring well 18WW02. These wells would provide the saturated zone impact in the vicinity of 18CPT09. 18WW06 contained < 0.5 ug/L of MC and TCE in September 2012. Monitoring well 18WW02 contained < 0.5 ug/L of MC and TCE in September 2012. These wells were not sampled in May 2013 but the September 2012 concentrations provide evidence that groundwater is not impacted in the vicinity of 18CPT09.	

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56	3-19	1st Bullet, 4th sentence	Please change VOC's to TCE and indicate which TCE value belongs to which zone.	C	Changes made as suggested.	
57	3-24	Last Bullet	Borehole 18CPT11 was pushed to a depth of 39 feet. The MIP did indicate potential contamination from 16 to 28 feet. It appears that no soil borehole was drilled at this location, since there is not a log in the report and there is no soil data in the report. Please include in the text an explanation of why no additional data was collected at this location (i.e., MIP did not identify VOCs below 30 feet, etc).	C	MIP response in 18CPT11 was barely noticeable, indicating extremely low levels of VOCs between approximately 17 and 23 feet bgs with a slight creep to a depth of 25 feet bgs for the DELCD signal. No MIP response occurred below 25 feet bgs. Groundwater saturation at this level occurs at a depth of 15 feet bgs (19 was used in the report which has been changed to 15). Therefore, the presence of any VOCs in this area is associated with the saturated zone only, which are represented by data collected at MW-8. This information and the absence of MIP response below 25 feet bgs did not necessitate collecting additional soil data. The text was revised to clarify that no MIP response was observed below 25 ft and the depth of observation of the MIP signal is within the saturated zone.	
58		Table 3-3, Borehole 18CPT07 (29-30 feet) MD	This appears to be a matrix spike or something, since all of the VOC's have high values. Some of the values are highlighted as exceeding standards. Please verify that this column of data is reporting the data the way you want to report and change the data flags (highlighted values) to the proper color. In addition, reporting levels are much higher for most of the samples for borehole 18CPT07, with the reporting level above the RSS. The laboratory may have had some instrument/calibration problems when these samples were analyzed. The QC report in the document does not indicate any MDs, but does include a MS and SD. The QC report in this document is appreciated by the EPA.	C	The data point flagged with "MD" for 18CPT07 is a spiked sample and is not representative of the site condition. Since this is a quality control data set, it should be part of the QC report and not the analytical summary report. This column has been removed from Table 3-3 to avoid confusion. The reporting limits for 18CPT07 while elevated are below the Risk Reduction Standards for the majority of the chemicals with the exception of 1,2-dibromo-3-chloropropane, 1,4-dichlorobenzene, and vinyl chloride with vinyl chloride exceedance limited to 18CPT07 (37 to 37 ft bgs) at 218 ug/kg versus RSS of 200 ug/kg. Therefore, we believe these results are useable.	

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59		Table 3-5	Boreholes 18CPTMW01DW and 18CPTMW01SW both have concentrations of MC above MCL's, but are only highlighted as detected. In addition, no MCL is listed for MC in the MCL column. Please revise the Table.	C	Table updated as suggested.	
60		Table 3-5, Borehole 18CPTMW06	Methylene chloride is reported as 597 ug/l, but the flagging indicates that this does not exceed a MCL. In addition, TCE was reported at 30.9 ug/l. Since both MC and TCE exceed MCL's and this well is probably considered a shallow Wilcox well, one cannot say that the vertical extent has been delineated in this part of the containment area. Based on this information, a deeper Wilcox well may be warranted in this location.	C/D	We agree that MC and TCE concentrations exceed the MCL at 18CPTMW06SW which is in the shallow Wilcox. However, data from the other four Wilcox Formation co-located wells (18CPTMW01, 18CPTMW08, 18CPTMW10, and 18CPTMW12 all for SW and DW) indicate that the concentration in the deep Wilcox for MC and TCE decrease by 1-2 order of magnitude (a decrease by 1/3rd was observed at 18CPTMW10 well pair for TCE) between the shallow and deep Wilcox. Therefore, it is expected that MC concentration to decrease by 1-2 orders of magnitude between the shallow and deep Wilcox at 18CPTMW06SW. MC concentration in the shallow zone is lower than observed in the shallow Wilcox, indicating that there is no MC source in this area from the shallow zone. MC in the shallow Wilcox at 18CPTMW06SW might be sourced from the vicinity of 18CPTMW01. In the vicinity of 18CPTMW01, MC concentration decrease from 2,630 ug/L in the shallow Wilcox to 21.8 ug/L in the deep Wilcox. Carrying this ratio to 18CPTMW06SW would imply that MC concentration in the deep Wilcox at 18CPTMW06SW would be 4.95 ug/L. A similar analysis for TCE would imply a TCE concentration in the deep Wilcox at 18CPTMW06SW of 0.77 ug/L. Based on this analysis; we do not believe that a deep Wilcox well at 18CPTMW06SW is needed.	
61		Table 3-5	Please see columns for CO2-F, CO4-F, CO4-MD, and CO4-MS. Similar to comment 55, do these columns need to be in the Table? There are other columns as well that include suffixes. Please provide definitions of those suffixes in the legend for the Table.	C	CO2-F and CO4-F are filtered samples for metals analysis and are valid data points. CO4-MD and CO4-MS are matrix spike and matrix spike duplicate results and are part of the QC reporting. These and other similar QC samples were removed in response to this comment.	

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62	4-2	4.1.3	What about the possibility of contaminants bypassing around the southwestern edge of the site. What historic information is known in the area of MW-20 (please note this well is very shallow) to verify that the contamination was historic or prior to installation of the ICT?	C	MC has not been detected above 5 ug/L in 102 since 1994 with highest historical concentration of 28 ug/L occurring in 1986. In May 2013, MC was < 0.5 ug/L in 18CPTMW22 to the south of 102. Therefore migration of MC has not occurred and low historical concentrations that may have migrated have since attenuated. TCE has not exceeded 5 ug/L in 102 with the exception of reported value at 7 ug/L in July 1987, implying that TCE has not been observed in that area of the site historically above MCL. TCE in 18CPTMW22 was reported at 66.4 ug/L (J-flagged) in May 2013, indicating presence of low concentration of TCE in this area of the site. Historical MW-20 data indicate the presence of TCE in this well as early as 1994 with the highest concentration of 86 ug/L in March 1998, indicating historical migration of TCE in this area of the site prior to installing the containment area. Since perchlorate was not analyzed prior to 2000, its historic presence outside the containment could not be established from existing data.	
63	4-3	4.2, 3rd Bullet	Please change the statement to “selected’ since no wells were sampled during the event (i.e., MW-14).	C	Change made as suggested.	
64	4-3	4.2.1, 1st paragraph, last sentence	Please change the word “southeast” to “southern extent”.	C	Statement reworded to clarify as suggested.	
65	4-3	4.2.1, 2nd paragraph, 4th sentence	Monitoring well C-01 is defined as a Wilcox well, how can that be used to determine the extent of contamination in the shallow zone?	C	Agree, C-01 is a Wilcox well and will not be used to determine extent of contamination in the shallow zone.	
66	4-4	3rd paragraph, 3rd sentence	EPA agrees that further sampling needs to occur to define the southern extent within the Wilcox. However, both C-01 and C-10 are far away and are mostly cross gradient of the plume. One would assume that at certain point the contamination would start moving towards the northeast, so	C/E	18WW03 has not been sampled often. The only data point was collected in June 1995. Inclusion of 18WW03 into the sampling program will be completed to determine current conditions. Assessment of need for additional wells in the Wilcox formation will be included in the	

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			monitoring well 18WW03 seems to be a candidate for sampling, since it would capture any potential contamination moving around the eastern edge of the site. Unfortunately, there are no Wilcox wells closer to the current plume for a control point. If a Wilcox well is placed just south of the containment area, it probably would help define the plume. If both wells, C-01 and C-10 indicate no detections, then the size of the plume may still extend further out of the containment area since these control points are so far away.		Remedial Design.	
67	4-4	4th Paragraph	EPA recognizes that the previous BH series wells may have provided an avenue for Wilcox contamination prior to abandonment, but another possibility would be injection, since heads were increased, this could further facilitate contamination into the clay, which eventually could migrate downward through potential micro fractures within the clay. So far, this report has not mentioned any potential connection of injection facilitating the migration of COC's both laterally and vertically.	C	This connection was presented in the October 18, 2012 presentation updating the CSM. However, the report was focused on assessment of investigation data. Assessment of previous remedial actions such as re-injection was not part of the stated objectives of the PSI WP. However, assessment of potential vertical migration at these locations was discussed in the Data Gap Report. Evaluation of the data at 18CPT06 adjacent to ICT-9 indicates that there is no MIP response in the Wilcox clay below 40 feet bgs. Additionally, discrete soil samples at 38-39 feet bgs in the coarse-grained soil above the Wilcox clay indicated the presence of 219 ug/kg of TCE, < 0.943 ug/kg of MC, and 824 ug/kg of perchlorate but in the soil sample at 43-44 feet bgs within the Wilcox Clay, the concentrations of MC and TCE were < 1.06 ug/L and perchlorate concentration was 15.5 ug/L. These results indicate that vertical migration in the Wilcox Clay is attenuating significantly at this location that has been historically influenced by reinjection in ICT-9. Although not indicated by the soil data discussed above, it is possible that enhanced vertical gradient due to reinjection in ICT-9 may have resulted in migration of CoCs to the Wilcox Formation from the shallow zone closer to ICT-9 which then migrated to 18CPT06 location. For example, MC concentration in Wilcox Formation well 18CPTMW06SW was reported at 597 ug/L but was 0.531 ug/L (J-flagged) in shallow zone well MW-22. This implies that vertical migration of MC at this location due to ICT-9 reinjection is	

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					not possible (which is also proven by the clean soil samples having no MC detection at this location). Rather, migration of MC within the Wilcox Formation likely occurred from upgradient from the 18CPTMW01 area (near MW-2) where the concentration of MC in the Wilcox Formation was reported at 2,630 ug/L. Assessment of data at 18CPT04 adjacent to ICT-6 indicates the following: MC at 18CPTMW04 in the shallow zone is < 0.5 ug/L, TCE = 86.6 ug/L, and perchlorate = 6.48 ug/L. In 18CPTMW04SW in the upper Wilcox, MC = 0.785 ug/L (J-flagged), TCE < 0.5 ug/L, and perchlorate = 0.453 ug/L in May 2013. These concentrations do not imply significant vertical migration from the shallow zone to Wilcox Formation. While soil data was not collected at this location, MIP results indicated a weak DELCD signal between 13 and 20 feet and a week FID signal at 22 to 25 feet bgs with saturation occurring at approximately 20 feet bgs. No MIP signal was observed between 25 and 40 feet with the exception of a weak FID signal at 31 feet bgs (very narrow thickness of < 0.2 feet). These results indicate that there is no VOC contamination that appears to have migrated vertically downward at this location as well. However, since there is no historical groundwater data at this location, the introduction of water into ICT-6 could have resulted in flushing the contaminants over time and caused the concentrations in the soil and groundwater to decrease to the levels observed in this investigation. This analysis does not preclude the occurrence of lateral migration of CoCs due to reinjection of treated groundwater into ICT-6 and ICT-9. For example, perchlorate at MW-22 was 11,200 ug/L in May 2006 prior to injection but decreased to 3,000 ug/L by March 2012, almost linearly. This is likely a response to reinjection of groundwater in ICT-9 pushing CoCs away from the injection area. A similar observation was made for TCE	

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					from 3,180 ug/L to 528 ug/L over the same timeframe.	
68	4-4	4.2.2.1, Second bullet	EPA recognizes that there is some historical evidence that contamination to the west was there prior to the installation of the ICTs and injection, however; there is still the possibility of bypass of contaminants at ICTs 12 and 13. Also, please add a bullet that states there is the potential for contamination to bypass the ICTs. In addition, the southwest corner indicates perchlorate contamination beyond the southern boundary and the contamination could or may have moved along the outer boundary of the ICT.	E/C	The bypass potential of contaminants has been acknowledged in 4.1.3 under the header" Potential Contaminant Bypass of ICTs and Liners". Section 4.2.2.2. addresses the recent observation of perchlorate migration to the south as indicated in the comment.	
69	4-5	4.2.2.4	Please remove typo at end of bullet statement (Vertical gradients).	C	Comment incorporated as suggested.	
70	4-5	4.2.3.2, 1st Paragraph	Please see comment 8.	C	See Response to Comment 8.	
71		Cross-section A-A'	Please define solid line drawn between boreholes 18WW11 and 18CPT-05. The cross sections are nicely done, but it is very difficult to read the grain-size log due to small font. EPA recommends making cross sections into fold outs to allow for larger font and definition of logs.	C	The solid line indicates the presence of gravel deposition in this area. However, this line has been removed from the cross-sections. A larger map showing the cross-sections and another showing the grain size log has been generated and will become part of this appendix.	
72		Cross-section B-B'	Please see previous comment. A determination of depth at ICT-7 cannot be made in the cross section since the information is too small and crowded.	C	The section was revised to show ICT-7 more clearly in response to this comment.	
73		Cross-sections F-F' and G-G'	Please indicate the ICT depths on the western and eastern boundary.	C	The section was revised to show ICTs in response to this comment.	
74		Groundwater Field Forms	Recently drilled and sampled wells seem to show residual effects of mud and cement. For instance, 18CTPTMO1SW had a pH of 11.99 when the well was sampled. Typically, the historical pH in groundwater at the site ranges from 5 to 6.5. The text in the report should indicate that drilling processes could have affected water-quality within these	C	Agree that instances where pH has increased to alkaline levels are potentially indicative of cement/mud pH effects. These levels should decrease to natural levels as the cement hardens and clean groundwater flushes the well over time. If reversion to normal conditions appears to be slow following two compliance sampling events, then	

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			wells (especially metals). Deeper wells drilled next to existing shallower wells also indicates potential fluid cross over. MW-7 now has a pH over 9. EPA would like to discuss this issue during a conference call when discussing these comments.		redeveloping the affected wells will be completed as part of the next field evaluation.	
75		General Comment	Based on the findings of this PSI, there appears to be a data gap within the area of boring 18CPT03 and south thereof. TCE and perchlorate were detected at high levels down to 44 feet in this area, but there are no Wilcox wells in this area to define the vertical extent. EPA recommends drilling a Wilcox well within this area to define the vertical extent of perchlorate and TCE. In addition, since boring 18CPTMW22 and ICT 11 both show high concentrations of COCs, additional information is needed to determine the vertical extent of contamination.	D	The results at 18CPT03 do not provide new information based on known concentrations of CoCs measured in MW-23 and MW-7 and in 18CPT13 to the south and a data gap in the shallow zone to the south is not supported by existing data. TCE concentration at 18CPT03 decreased by an order of magnitude from 2,302 ug/kg at 34 to 35 feet bgs to an estimated concentration of 365 ug/kg (J-flagged) at 43 to 44 feet bgs, indicating that TCE vertical migration is impeded. MIP results corroborate this observation. There is no evidence of TCE migration to the Wilcox Formation at this location. The potentiometric map for the Wilcox Formation indicates that groundwater would flow from 18CPT03 towards 18CTPMW12. The perchlorate concentration in 18CPTMW12SW is < 0.2 ug/L although MW-7 has a perchlorate concentration of 37,500 ug/L. These results indicate that should vertical migration of perchlorate occur at 18CPT03, perchlorate would manifest itself in 18CPTMW12SW, but this is not the case. As indicated in other responses to comments, C-01, a Wilcox Formation well to the south will be included in future sampling activities. Since there was no source area outside the containment where 18CPTMW22 is located, perchlorate migration to this location occurred via lateral migration. The potentiometric contours at this area of the site in the shallow zone and Wilcox Formation indicate the absence of a downward vertical gradient. Therefore, based on these two conditions, there is no reason to believe that perchlorate has migrated vertically to the Wilcox	

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					Formation. Sampling C-01 for perchlorate would provide a conclusion to this hypothesis as this would provide perchlorate data in the area between 18CPMW12SW and C-01 in the Wilcox Formation, which encompasses location 18CPT22. Evaluation of whether additional wells are needed will be part of the Remedial Design.	
76		General Comment	The data collected from this investigation has further advanced defining both the lateral and vertical extent of the contamination at this site. In some locations, there is still contamination higher than MCLs in the deepest zones that were sampled. Is the vertical extent defined well enough to move onto remediation? Secondly, the text often states that historic contamination to the west of the ICTs is the most likely source of contamination, which EPA agrees in general. However, in areas such as MW-9 (now it has two other wells in cluster with depth), there is contamination well below the influence of the ICTs, so the deeper contamination could be from the containment area as well. TCE was found 90 feet below land surface in that area which is at least 40 feet below the ICT. In addition, with the high perchlorate concentration found outside the southwest corner, there is the potential that perchlorate could be moving along the ICTs and bypass around the corner (the perchlorate was mostly likely influenced by mounding effects due to injection and surface irrigation).	D	Based on the distribution of Wilcox Formation wells at the site, the extent of CoCs in the Wilcox Formation has been adequately defined. The levels in the deepest Wilcox zones are such that they would attenuate naturally once source is remediated. It is anticipated that deeper zones of the Wilcox will have even lower concentrations, if any, that would attenuate more quickly than the concentrations observed in the shallow Wilcox Formation. Sufficient data are available to select a final remedy. While some Wilcox Formation wells have not been sampled for this event, such as 18WW02, MW-14, 18WW11, C-01, 18WW03, and C-10, sampling some or all of these wells in future events should provide a better definition of extent of CoCs in the Wilcox Formation to close any perceived data gaps. Additionally, the new wells have had a single sampling event. Additional data will be collected to understand the seasonal variations, trend, and average over time. The low concentrations reported in the deep Wilcox at MW-9 area in co-located Wilcox Formation wells could occur through two means: either due to vertical migration of CoCs present in the shallow zone associated with historical contamination to the Wilcox Formation or due to lateral migration of CoCs in the Wilcox Formation from on-site to off-site towards MW-9 area which cannot be impeded by the shallow zone extraction system or the Wilcox clay. The lack of communication between containment interior and exterior of the site at this location	

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					due to the presence of ICT liners is apparent by the following: i) the vertical gradient in MW-9 area outside the containment is downward with 1.1 foot of vertical head difference in May 2013. The closest co-located wells inside the containment is well pair 102 and MW-14. The vertical gradient in this well pair is upward with a vertical head difference of 0.98 feet as of May 2013. The extraction system is closer to MW-9 location than location of 102/MW-14 but there is no observed vertical gradient influence on MW-9 because this influence is prevented by the presence of liners between the ICT and MW-9 location; and ii) There is a large difference in CoC concentrations between MW-9 outside the containment area and AWD-1 just inside the containment area, 135 feet away from MW-9. TCE in MW-9 is lower by an order of magnitude than AWD-1 and perchlorate is lower by more than two orders of magnitude. These differences in head and concentrations are considerable and can only be observed if a physical isolation is in place such as the ICT liners. The mounding effect at the site in the shallow formation is present historically as depicted on 1994 potentiometric completed by USACE and is not associated with irrigation effects. The extraction system has decreased the lateral extent of the mound which extended in 1994 to the south of the site towards MW-20 but now is isolated to the central northern portion of the site. The historical potentiometric gradient at the site indicates that the gradient in the southern corner of the site occurs to the east, west and south. The western and southern components of the historical gradient would facilitate CoC migration outside the site boundaries in this area of the site, which explains the presence of CoCs outside the containment area. The current depiction of the potentiometric lines in the shallow zone in the southern area of the site is such that there is no horizontal gradient to the south that would facilitate migration of CoCs	

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					towards 18CPTMW22. The gradient is primarily to the west towards ICT-12A, which has an extraction rate of approximately 10,000 gallons per month. While these observations do not preclude continued migration of CoCs to the south, we do not believe that there is a significant migration of CoCs in a southerly direction from on-site to off-site at this time (i.e., while extraction is taking place). Note also that the GWTP has had at least two events with protracted downtime that could have allowed migration of CoCs to the south during those events even under the current conditions of presence of liners along the southwest site boundary.	
77		Table 2-2	**New Monitoring Well Specifications:** Please include in the Table the coordinates and vertical datum information.	C	Table 2-2 was updated to include the information requested.	
78		General Comment	Please include in a Table the coordinates and vertical datum information for the CPTs and DPTs.	C	The requested additional data was added to Table 2-2.	
79		Appendix F, Last Paragraph	The pure compound solubility for MC should be 15,400,000.	C	Pure MC solubility of 15,400,000 ug/L was used to calculate soil saturation levels.	
80	4-5	Vertical Gradients, 2nd Paragraph	The first sentence mentions two wells. The second well mentioned should be 18WW1018WW11. Also, the next sentence mentions two well pairs, please provide numbers for those pairs.	C	Changes made as suggested.	
81		Appendix C, Cross Section	Please update the Figure numbers and dates.	C	Change made as suggested.	

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82		Cross Section A-A'	Please include 18CPTMW015SW and 18CPTMW01DW on the cross section. EPA is mostly interested in seeing where the well screen is set and to supplement/fill in the lithology.	C	Believe the commentor meant 18CPTMW01SW. The section includes location 18CPT01 well screens in the shallow and deep Wilcox representing 18CPTMW01SW and 18CPTMW01DW, respectively. The lithology for 18CPT01 was only completed to a depth of 42 feet bgs (refer to Appendix A – boring logs). Between 42 and 69 feet bgs, a CPT was used to depict lithology. This information is displayed on the cross-section.	
83		Cross-Section B-B'	Please include 18CPTMW-08SW/DW, 18CPTMW-19SW/DW, 18CPTMW-06SW/DW and 18CPTMW-14SW/DW on the cross section. EPA is mostly interested in seeing where the well screen is set and to supplement/fill in the lithology.	C	18CPTMW08, 18CPTMW19, 18CPTMW06SW, and 18CPTMW14 are included in cross-section B-B'. Please note there is no 18CPTMW14SW and DW, rather there is only 18CPTMW14. Similarly, there is no 18CPTMW06DW, rather there is only 18CPTMW06SW. There is no 18CPTMW19SW and 18CPTMW19DW but only 18CPTMW19.	
84		Cross-Section D-D'	Please include 18CPTMW-10SW/DW, 18CPTMW-12SW/DW, and 18CPTMW-2SW/DW on the cross section. EPA is mostly interested in seeing where the well screen is set and to supplement/fill in the lithology.	C	18CPTMW10 and 18CPTMW12 are included in cross-section D-D'. Please note there is no 18CPTMW-2SW and DW. Perhaps the commentor meant to refer to 18CPTMW22 which is included in cross-section D-D'.	
85		General Comment	The well screens are not visible or distinct or are not included on cross sections E-E', F-F', G-G', H-H', I-I' and J-J'. Also, the water level data is not included on these cross sections.	C	Wells screens and water level data have been added to these cross-sections.	
86		All Cross Sections	Why is the water level date of 3/23/11 being used? Please use the water levels from the most recent set of data.	C	Water levels from May 2013 have been added.	
87		COC Concentration Isopleths/ Figures	What about the concentration isopleths for the metal COCs at 18/24?	D	There is not sufficient distribution and continuity of metals in groundwater to develop isoconcentration maps.	

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88		General Comment	Please provide a large map/figure that shows the locations of all the cross sections.	C	A standalone figure showing all the cross-sections has been added.	
89		General Comment	EPA has some ideas which might assist in determining whether contamination found outside the containment area was from a source area outside the ICTs or from contamination within the containment area (Of course, it could be a combination of both). Some thoughts are: 1) Obtaining general water chemistry information on all or most of the wells inside and outside the containment area and complete Piper and Stiff diagrams; 2) Sample wells inside and outside the containment area for nitrates and phosphorous; and, 3) Sample wells inside and outside the containment area for specific isotopes.	D	The purpose of conducting CPT/MIP and discrete soil sampling from locations such as 18CPT09 through 18CPT12 outside the containment area was to determine whether there is a source in the unsaturated soil in these areas. The data indicated the absence of a source in the unsaturated zone to the southwest outside the containment area with the exception of location 18CPT09 for perchlorate which likely was sourced from surface runoff from the ACD area. Additional testing requested in the comment is not warranted.	
90		TCE Isopleth Contour Wilcox	There appears to be a data gap (no wells) to south of the drawn plume on the Figure. Also, for the west TCE plume, MW-14 had a concentration of 11,800 ug/l in September 2012. This well was not sampled during the most recent sampling and was not included in the contour for the west plume.	C	As discussed previously, wells C-01, C-10, and 18WW03 will be sampled in the future to provide additional delineation of extent. MW-14 will also be included in future sampling as was discussed previously.	
91		Perchlorate Isopleth Figure	Well AWD-3 (not sampled in 2013) had a concentration of 13,100 ug/l in September of 2012 and should be included in future contours.	C	AWD-3 will be sampled in the future. Please see response to comment 54.	
92		MC Isopleth Figure	There appears to be a data gap (no wells) to the south of the drawn plume for this Figure.	D	The comment does not specify whether the discussion pertains to the shallow zone or the Wilcox Formation. However, it appears the comment pertains to the Wilcox Formation to the south of 18CPTMW06SW where 597 ug/L of MC was reported. Further delineation of MC to the south of 18CPTMW06SW will be achieved by collecting samples from Wilcox wells 18WW03, C-10, and C-01 located to the east, south and southwest of 18CPTMW06SW for further assessing MC extent. Evaluation of whether additional wells are needed will be part of the Remedial Design.	

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93		TCE Isopleths Figure	There appears to be a data gap to the east of well C-08. Also, there appears to be a data gap to the south of 18CPTMW22.	D	We assume this comment pertains to the shallow zone. Concentration of TCE in C-08 is 13.2 ug/L which is not high enough to warrant another shallow well to the east of C-08 but more importantly the groundwater gradient is such that C-08 is at a higher elevation than at 18CPTMW24 as a result of the extraction of groundwater. Therefore, plume expansion in this direction is not anticipated, rather reversal of flow is likely occurring. 18CPTMW22 was discussed in comment 52 pertaining to perchlorate. A similar response applies here for TCE at this location. Sampling existing monitoring wells 126 and C-09 will help delineate extent to the south. Monitoring well 17WW08 will also be sampled to delineate the plume to the west. To the southwest a shallow monitoring well adjacent to Wilcox Formation monitoring well C-01 is recommended as part of Remedial Design.	

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1	viii	Executive Summary; Field Investigation paragraph 1	Begin by explaining WHY field work was needed. For clarity, add the sentence from pg 2-1 (2.2.1, 3rd paragraph, first sentence) which explains the purpose of the work. " The purpose of this investigation was..." Add reference to shallow and Wilcox groundwater zones. Add that the goal was to better determine the distribution of shallow, Wilcox, and the clay layer between them.	C	Added text providing the objectives of the PSI work.	
2	1-3	1.2.2 2nd paragraph;	Last sentence – Include the general depth ranges for NEW shallow vs. Wilcox in narrative. Figures from the Work Plan should be revised (or notes could be added) to reflect the findings discussed here.	C	General depth ranges for the identified zones were added to text. Work Plan figures are for purposes of referencing scope of work and site conditions and are not a results of this work. No changes to these figures are made.	
3	1-4	1.2.2; 1st paragraph	Thank you for finding the well depths. Please add distance from 18/24, to demonstrate that, while wells are in the facility, they are still far away.	C	Approximate distances to LHAAP-18/24 were added to the text.	
4	1-7	Figure 1-2	Add Saunders Branch, Fire Station, and USFWS headquarters/office	C	Identifiers were added to Figure 1-2.	
5		Figures 1-4 to 1-6	It is confusing to have these figures just plugged in from the work plan. At minimum, the titles need to be revised. Specific comments to each figure follows.	C	Updated title block by removing the reference to the work plan for Figure 1-4. Figures 1-5 and 1-6 do not reference the work plan.	
6	1-9	Figure 1-4	Revise title to something like "Samples Collected Prior to Implementation of PSI Work Plan" Acronyms/abbreviations used in this legend are not defined	C	Naming in the legend was spelled out. Title in title block revised as indicated.	

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7	1-10	Figure 1-5	Do we need this figure? If so, revise the title to clearly indicate this is PRE-PSI investigation. Need note to explain new CSM regarding shallow intermediate. I'd say this figure and 1-6 should be removed and references should point to the new ones. Check that all wells are included. 18WW02 seems to be missing; others might be as well.	E	These figures are used to discuss pre-investigation site model and are needed. Monitoring well 18WW02 is located on Figure 1-6. The title block was updated and clarifications to legend made in response to this comment.	
8		Figure 1-6	See comment 7. Remove or revise title. The cross section lines should be removed since not discussed in narrative and that topic is covered in the appendix.	E/C	See response to comment 7. The title block was updated and clarifications to the legend were made in response to this comment.	
9	2-2	2.2.2.1; 3rd paragraph	This occurs several times in text – pull the long list of numbers into ranges "18CPT01 through 18 CPT15 and 18CPT19 through 18CPT27" (Also in 3.1.1 twice, 3.2.2, and possibly elsewhere).	C	This comment was incorporated where possible throughout the document.	
10	2-12	Figure 2-2	Some locations are missing SW or DW (18CPT 06, 07, 04)	C	18CPTMW06 and 18CPTMW07 should have SW associated with the nomenclature. However, 18CPTMW04 does not since this is a shallow zone monitoring well although it is co-located with 18CPTMW04SW. Corrections made as needed. Note that SW stands for Shallow Wilcox and DW stands for Deep Wilcox.	
11	2-13	Table 2-1	Revise title of "WP Action" column – these were the **planned** actions. It would be very helpful to add a column to briefly explain deviations from the WP. I think this would be helpful and different information than is presented in Table 2-3, since that table is very specific.	C	Deviations from WP added with explanation where appropriate.	
12	2-16	Table 2-3	Add "by location" to the title	C	Title updated as noted.	

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13	3-12	3.2.3 last paragraph	In this sentence: The concentration of perchlorate in 18CPT21 (24 to 28 ft bgs) was 4.72 ug/L and <u>no sample was collected</u> from 18CPT25 (28 to 32 ft bgs) for perchlorate due to insufficient volume of water. Underlined text should be "no analysis was completed"	C	Changes made as noted.	
14		Several sections beginning with 3.2.4	Please change bulleted paragraphs to subsections for each location; this will help with usability and referencing.	C	Subsections created for bullets.	
15	3-20	1st paragraph	"100,00" missing a zero	C	Zero added.	
16		Table 3-1	Outside containment/Northwest Area 18WW02 reads 175 to 185 in shallow, revise	C	Moved reference to 18WW02 from Shallow Zone to Lower Wilcox column of Table 3-1.	
17	4-3	4.1.3; 1st paragraph	This conclusion (or similar) regarding ICT 12E and 13A appears in several places throughout document: "...migration of contaminants from on-site to off-site below and between the ICTs (a gap exist between ICT 12E and ICT 13A) could occur with little impedance." I take exception to the words "could occur". I think it would be more accurate to say "could continue" and add that it is the physical control of the pump and treat that reduces risk of further plume expansion in this area. Consider revising this statement where it appears in the document.	C	Changed text to state "historically could occur with little impedence", and added "but that physical control provided by the pump and treat mitigates plume expansion in this area" in Section 4.1.3 and in Section 5.1, item 6.	

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18	4-3	4.1.4 first bullet	Add details about the groundwater zone containing DNAPL. (at the Wilcox confining layer). This is a helpful detail to include EVERYWHERE the 18CPT21 DNAPL is discussed.	C	Details added as requested.	
19	4-3	4.2.1; first paragraph	Add note that 18CPTMW22 is a new well.	C	Note added.	
20	4-5	4.2.3.2; 2nd paragraph	"18WW11/18WW11" should be "18WW10/18WW11"	C	Correction made.	
21	5-1	5.1; statement 6	I do not agree with this conclusion. Thanks to this work, we have learned much about this corner. There is a gap between the ICTs and no confining layer between the GWBUs. The plume does not have to migrate between the ICTs; it could go under them as well. This seep would not necessarily flow to 18CPT09. Please revise the conclusion to include these details; the conclusion as written does not adequately reflect the complexity at this location.	E	For this conclusion as well in the body of the report, we indicate that CoCs could migrate in between and below the ICTs. Therefore, these details as requested are included and discussed. Agree that 18CPT09 is only one location and does not have to receive CoCs emanating from the site. However, concentrations at wells such as C-02 and 18WW10 in the western area of the site within the Shallow Zone currently do not show the presence of TCE, MC, or perchlorate, although historically some of these CoCs were present.	
22	5-2	5.1; statement 12	"High" barium and arsenic, more accurate to say exceeds MCL	C	Added this information.	

Responses to TCEQ Comments on
Draft Post Screening Investigation Report
LHAAP-18/24, Burning Ground No. 3and Unlined Evaporation Pond
Longhorn Army Ammunition Plant, Karnack, Texas

November 2013

Reviewer: April Palmie, TCEQ
Respondent: Marwan Salameh/Dave Wacker, AECOM

1. Respondent Concurs (C), Does Not Concur (D), Takes Exception (E), or Delete (X).
2. Commentor Agrees (A) with response, or Does not Agree (D) with response.

Comment #	Page	Section/ Paragraph	Comment	C, D, E or X[1]	Response	A or D[2]
23	5-2	5.2	Additional recommendation – remedy will need to address contamination outside the ICT/containment area.	C	Added this recommendation.	
24		Appendix A	Please add a table that lists where the lithology and well completion details are for each data point. There is much cross referencing on the logs to other pages. It is confusing to find the correct data for point on the ground. I think this reference is wrong: 18CPTMW22 AECOM boring log references MW-22 for the lithology. Should this reference ACTUALLY be 18CPTMW22 CPT log? 18WW22 AECOM log should say the well was not logged with this event and reference the older log of C-04/C-04A, including date and location in the site file (or ADD C-04 log to this report)	C C C	A boring co-located with another boring is logged only once. The shallower boring typically references the deeper boring. The shallower boring is included only when a shallower well is installed at that location and the purpose of the log is to show the well construction details. A table providing the requested information was created and placed at the beginning of the appendix. Boring 18CPTMW22 should reference a CPT log at that location. Change to the boring log was made by hand crossing the incorrect text, adding corrected text, initialing, and dating the change . Correction was made as noted and boring log for C-04 was added.	
25		Appendix C	The report should include full size maps for EACH of the inset figures that show the location of the cross section. Please do not combine these all on one figure; it would not be a good tool. It would be most useful to have a full size map of A-A' followed by the cross section for A-A' (repeat for B through J) ALL of the cross sections should be 11 X 17. The grain size log color scheme is not useful. For example, it is impossible to discriminate between various lime green color blocks. Add something to discriminate between	C C C	One map showing the location of each cross-section has been developed and included in the report appendix. All cross-sections are formatted and can be printed in 11X17. A full size page was added providing better visibility to the grain size log color scheme.	

Responses to TCEQ Comments on
Draft Post Screening Investigation Report
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Longhorn Army Ammunition Plant, Karnack, Texas

November 2013

Reviewer: April Palmie, TCEQ
Respondent: Marwan Salameh/Dave Wacker, AECOM

1. Respondent Concurs (C), Does Not Concur (D), Takes Exception (E), or Delete (X).
2. Commentor Agrees (A) with response, or Does not Agree (D) with response.

Comment #	Page	Section/ Paragraph	Comment	C, D, E or X[1]	Response	A or D[2]
			color blocks of the same color. A full page grain size log legend at the beginning or end of the appendix would also help. A-A' has a solid black line below the erosional contacts, which is not explained. Add to legend of any relevant figures.	C	The solid black line is no longer depicted on the section.	

FINAL

POST-SCREENING INVESTIGATION REPORT FOR LHAAP-18/24, BURNING GROUND NO. 3 AND UNLINED EVAPORATION POND

LONGHORN ARMY AMMUNITION PLANT

KARNACK, TEXAS

Prepared For:

U.S. Army Corps of Engineers

Prepared By:

AECOM Technical Services

December 2013

FINAL

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Prepared For:

U.S. Army Corp of Engineers

Tulsa District

Prepared By:

AECOM Technical Services

Contract No. W912DY-09-D-0059

Task Order No. DS01

December 2013

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Acronyms and Abbreviations

ug/kg	micrograms per kilogram
ug/L	micrograms per liter
ACD	air curtain destructor
AEC	Army Environmental Command
AECOM	AECOM Technical Services, Inc.
bgs	below ground surface
BRAC	Base Realignment and Closure
btoc	below top of casing
cm/sec	centimeters per second
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CoC	contaminant of concern
CPT	cone-penetrometer testing
CSIA	compound-specific isotope analysis
CSM	Conceptual Site Model
DELCD	dry electrolytic conductivity detector
DCE	Dichloroethylene
DNAPL	dense non-aqueous phase liquid
DO	dissolved oxygen
DPT	direct push technology
ESS	environmental sequence stratigraphy
FID	flame ionization detector
ft	foot/feet
FS	Feasibility Study
GWTP	groundwater treatment plant
HEW	horizontal extraction well
HSA	hollow-stem auger
ICT	interception-collection trench

IRA	Interim Remedial Action
IRP	Installation Restoration Program
LHAAP	Longhorn Army Ammunition Plant
MC	methylene chloride
MCL	maximum contaminant level
MIP	membrane interface probe
MNA	monitored natural attenuation
ORP	Oxidation Reduction Potential
PID	photoionization detector
ppmv	parts per million by volume
PSI	Post-Screening Investigation
PVC	polyvinyl chloride
RCRA	Resource Conservation and Recovery Act
TCE	Trichloroethylene
TCEQ	Texas Commission on Environmental Quality
TOC	total organic carbon
TSF	tons per square foot
UEP	unlined evaporation pond
U.S.	United States
U.S. Army	U.S. Department of the Army
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
uV	Microvolt
VOC	volatile organic compound
WP	Work Plan

EXECUTIVE SUMMARY

This Post-Screening Investigation (PSI) Report has been prepared on behalf of the United States (U.S.) Army Corps of Engineers (USACE) for Sites LHAAP-18 (Burning Ground No. 3) and LHAAP-24 (Unlined Evaporation Pond [UEP]/Rocket Motor Washout Facility) at the former Longhorn Army Ammunition Plant (LHAAP) in Karnack, Texas. The purpose of this PSI Report is to summarize the results of the environmental investigations conducted by AECOM Technical Services, Inc. (AECOM) between February and May 2013 at LHAAP-18/24. The ultimate goal for this information is to fill data gaps identified during the Feasibility Study (FS) at LHAAP-18/24 (Shaw, 2010) and update the Conceptual Site Model (CSM).

The investigation work and the information presented in this report are based on the PSI Work Plan (WP) (AECOM, 2013) that was developed by AECOM on behalf of the U.S. Department of the Army (U.S. Army). The WP was reviewed by and concurrence was obtained from the Texas Commission on Environmental Quality (TCEQ) and the U.S. Environmental Protection Agency (USEPA).

Background

LHAAP-18/24 is a 34.5 acre fenced, cleared area (containment area) located in the southeastern section of LHAAP. The area had been used for the treatment, storage, and disposal of solid and liquid explosive, pyrotechnic, and combustible solvent waste by open burning/open detonation, incineration, evaporation, and burial. Burning Ground No. 3 operated between 1955 and 1998. Historical waste management units include open burn pits, the UEP, stockpiles of solvent-soaked sawdust, an air curtain destructor (ACD), and suspected waste burial pits. A groundwater extraction system incorporating approximately 5,000 feet (ft) of interceptor-collection trenches (ICTs) and a groundwater treatment plant (GWTP) was installed in 1997 to control the migration of contaminated groundwater. The area within the ICTs is considered the containment area.

Field Investigation Scope of Work

The purpose of this investigation was to develop a more refined CSM by providing additional investigation data points not previously available. The following specific objectives were identified for this work:

- Determine the extent of volatile organic compounds (VOC) and perchlorate contamination in the shallow alluvium/Wilcox Formation both inside and outside the containment area.
- Evaluate the presence of and potential for vadose zone soil contamination and dense non-aqueous phase liquid (DNAPL) to act as continuing sources of groundwater contamination.
- Refine the hydrostratigraphic model for the site, including improving the understanding of connectivity between water bearing zones.
- Improve understanding of contaminant migration.
- Determine the vertical gradient between water-bearing zones both inside and outside the containment area.

- Develop a synoptic groundwater contaminant data set in the shallow alluvium and Wilcox Formation as a baseline for future work
- Evaluate the natural attenuation potential of trichloroethylene (TCE), methylene chloride (MC), and perchlorate.

The field investigation was conducted between February 25 and April 19, 2013 for the initial planned work activities and between May 1 and May 17, 2013 for installation of four additional wells determined to be required in the field. Thirty shallow soil borings were driven at the site for the purpose of soil characterization, soil sampling, discrete groundwater sampling (at select locations), and for collection of geotechnical data using one or more of the following investigative methods: cone penetrometer testing (CPT), direct push technology (DPT), hollow-stem auger (HSA), and mud rotary drilling techniques. Of these soil borings 21 were developed into groundwater monitoring wells. For the purpose of this work, AECOM defined the shallow unit as the soil between the ground surface and up to a depth of approximately 45 ft below ground surface (bgs) and was based primarily on the presence of a clay layer that separates the shallow soil from the deep soil and on the age of the alluvial deposits.

For soil physical characterization and for screening for the presence of volatile organic compounds (VOCs) in the shallow zone a CPT along with a membrane interface probe (MIP) were used. Of the 27 CPT locations, only 24 locations were completed using CPT because of access difficulties encountered at locations 18CPT16 through 18CPT18. A total of 19 MIP locations were completed in lieu of 18 MIP locations identified in the PSI WP. MIP data collection was added at 18CPT22 based on a field decision. At two locations only soil borings using traditional HSA drilling were specified (SB01-2013 and SB02-2013). These borings were installed adjacent to the former UEP and only lithologic data was collected for these locations.

Up to 4 discrete soil samples were collected at various depths from each of 16 soil boring locations in the shallow zone. Up to 3 discrete groundwater samples were collected from each of 11 soil boring locations in the shallow zone. The soil and groundwater samples were analyzed for perchlorate and VOCs. Geotechnical samples were collected from 9 discrete locations from up to 4 soil boring locations in the shallow zone (i.e., at some boring locations, fewer than 4 geotechnical samples were collected). Twenty two boreholes were logged by a geologist during drilling activities to allow comparison of the CPT log data with the field geologist observations.

Ten shallow monitoring wells were installed using HSA drilling methodology. The wells were 4-inch in diameter and were screened within the coarse-grained soil where identified. The screened intervals ranged between 9.5 and 19.5 ft for these wells.

Eleven Wilcox Formation wells were installed during the PSI activities using mud rotary drilling methodology. Mud rotary was used because of flowing sand which prevented use of HSA drilling, consistent with the SOP. The Wilcox Formation is generally defined as the deep unit below the shallow zone. Seven upper Wilcox monitoring wells were installed to a depth of 65 ft bgs and 4 deep Wilcox Formation wells were installed to a depth of 100 ft bgs. All Wilcox Formation wells were installed through surface casing installed within the shallow zone to prevent cross-contamination of the shallow zone contaminants with Wilcox Formation. The material of construction of the surface casings and the monitoring wells was polyvinyl chloride (PVC).

Field Investigation Findings

Lithology

The subsurface investigation supplemented and confirmed the CSM described briefly in the PSI WP, which is based on environmental sequence stratigraphy (ESS). Site stratigraphy consists of a relatively thin (10 to ~45 ft) cover of unconsolidated Quaternary alluvium atop semi-consolidated sandstones (sands) and shales (clays and silts) of the Eocene Wilcox formation. The contact between these two units represents a significant hiatus or erosional unconformity in the local geologic record. Because of its erosional nature, the contact between Wilcox Formation and Quaternary alluvium is irregular in elevation. Additionally, the lithologies in contact with one another at the interface will vary, making this a geologically complex stratigraphic horizon. A series of cross-sections are presented to illustrate the hydrogeologic nature of the site. Within the shallow alluvial, isolated sandy zones of higher permeability are surrounded by the silts and clays of the relict flood plain. This information is important to identify contaminant flux zones within the shallow zone.

CPT/MIP/DPT Data

CPT logs were generated within the shallow zone across all areas of the site. The CPT data along with geologic descriptions were used to support the ESS analysis and in conjunction with MIP results allowed the identification of discrete soil and groundwater sample locations.

The CPT logs within the shallow zone were compared to geologist logs and the comparison indicated good correlation of information between the various logs. At 9 discrete locations where geotechnical tests were conducted on soil cores, comparison between CPT logs and grain size analysis confirmed the quality and reliability of CPT in characterizing the soil type. Eight of 9 locations generated a good match with only 1 location indicating a discrepancy between the CPT log and the grain size distribution analysis. The discrepancy was related to an error associated with the exact depth of the sample being tested.

CPT and geologic logs along with ESS analysis identified the locations where the Wilcox clay is present and where it is absent within and outside the containment area. Generally, the Wilcox clay is absent in the northwestern corner of the containment area and to the north and northwest of the site towards Harrison Bayou. These results also identified vulnerability in the ICT containment area. In the northwestern corner of the site, ICT 12E and ICT 13A are at least partially not tied into the Wilcox clay and could potentially continue to allow contaminants of concern (CoCs) to migrate from within the containment area to outside the containment area. The results also confirmed the performance of the ICT and liners particularly to the southwest in preventing CoC migration from within the containment. High concentrations of perchlorate and trichloroethylene (TCE) outside the containment in the southwest area of the site were determined as a result of this investigation to be related to historical migration of CoCs prior to containment installation.

MIP results were used along with discrete soil data (58 discrete soil samples were collected) in the unsaturated zone to identify potential presence of source areas. The results identified only one location (18CPT09) outside the containment area to the west of the site where perchlorate concentration in the unsaturated zone at a depth of 6 to 7 ft bgs (2,500 micrograms per kilogram ug/kg) was higher than perchlorate concentration in the saturated shallow water-bearing unit,

implying that perchlorate could be a potential future source to groundwater at this area of the site. The presence of perchlorate in this area is related to historical releases at the site.

Multiple other locations where contaminants were identified in the unsaturated soil but the concentrations of same contaminants in the shallow groundwater were much higher, indicating that the unsaturated soil does not constitute an important contributing source at this time. These locations included:

- 18CPT06 (19 to 20 ft bgs) for TCE and perchlorate; TCE concentration was 106 ug/kg at 19 to 20 feet bgs and was 219 ug/kg at 38 to 39 feet bgs, while perchlorate concentration was reported at 331 ug/kg at 19 to 20 feet bgs and 824 ug/kg at 38 to 39 feet bgs. Saturation at this location was encountered at approximately 25.5 feet bgs.
- 18CPT07 (17 to 18 ft bgs) for perchlorate; perchlorate concentration at 17 to 18 feet bgs was 669 ug/kg and at 29 to 30 feet bgs, perchlorate concentration was 3,780 ug/kg. Saturation at this location was encountered at approximately 28.8 feet bgs.
- 18CPT21 (16 to 17 ft bgs) for TCE and methylene chloride; TCE concentration was 11,600 ug/kg at 16 to 17 feet bgs and was 15,300,000 ug/kg at 48 to 49 feet bgs, while methylene chloride concentration was reported at 533 ug/kg at 16 to 17 feet bgs and 6,410,000 ug/kg at 48 to 49 feet bgs. Saturation at this location was encountered at approximately 24 feet bgs.
- 18CPT25 (15 to 16 ft bgs) for TCE; TCE concentration was 7,960 ug/kg at 15 to 16 feet bgs and was 13,000 ug/kg at 31 to 32 feet bgs. Saturation at this location was encountered at approximately 24.5 feet bgs.
- 18CPT27 (7 to 8 ft bgs) for TCE and methylene chloride; TCE concentration was 28,200 ug/kg at 7 to 8 feet bgs and was 2,830,000 ug/kg at 26 to 27 feet bgs, while methylene chloride concentration was reported at 3,030 ug/kg at 7 to 8 feet bgs and 4,950,000 ug/kg at 26 to 27 feet bgs. Saturation at this location was encountered at approximately 12.5 feet bgs.

Contaminant Presence and Distribution

Contaminant distribution for TCE, methylene chloride (MC), and perchlorate in the shallow zone and Wilcox Formation were determined using a synoptic groundwater sampling event and from discrete groundwater samples. The groundwater sampling event conducted in May 2013 included existing and new monitoring wells.

A total of 10 shallow zone monitoring wells and 11 Wilcox monitoring wells were installed. The Wilcox monitoring wells were installed through surface casings. The new monitoring wells enhance the understanding of CoC distribution and extent in groundwater and identified new areas of high concentrations. In particular, one area to the southwest of the site had very high perchlorate in the shallow zone groundwater that was not known previously. The results of investigation also improved the resolution of CoC delineation in downgradient locations. Review of the groundwater data revealed that monitoring wells C-01, C-09, C-10, and 126 should be analyzed for MC, TCE, and perchlorate moving forward and two new wells are recommended in the north area of the site. A shallow well is recommended to the north of 18CPTMW23 and one deep well is recommended adjacent to 18CPTMW23.

Discrete groundwater results from 11 shallow zone samples generally matched the contaminant distribution in groundwater from data collected from monitoring wells in the shallow water-bearing zone.

Analysis of discrete soil sample concentrations indicated the potential presence of dense non-aqueous phase liquid (DNAPL) at the following locations:

- 18CPT21 for TCE and MC (within the UEP); and
- 18CPT27 for TCE and MC (ACD).

Groundwater Gradients

Groundwater gauging data provided an understanding of the horizontal and vertical gradients at the site. The horizontal potentiometric map remained similar to previously observed conditions with a high water level within the northwestern portion of the site and outward flow direction. Reversal of gradient was observed in the northeast area outside the containment area influenced by extraction along the northeastern boundary.

Similar observations in the southwest and northwest outside the containment area could not be made as directly (although an appearance of reversal of gradient might be established at certain locales such as between MW-18 and MW-8), generally due to the presence of ICT liners preventing free communication between the on-site extraction and off-site groundwater.

The data indicate the presence of an upward gradient between upper Wilcox and the shallow zone within the containment with the exception of areas of MW-5 and 18CPTMW04. The upward gradient is most likely associated with groundwater extraction.

Outside the containment area, the majority of well pairs indicated a downward vertical gradient between the shallow zone and the upper Wilcox Formation with the exception of wells pairs 18WW08/18WW09 and 18WW10/18WW11. The downward gradient reflects natural groundwater vertical gradient not influenced by groundwater extraction. The upward gradient is located in the two well pairs closest to Harrison Bayou, likely a reflection of influence of Harrison Bayou on shallow groundwater elevation.

Metals

Assessment of metals concentrations in the monitoring wells (shallow zone and Wilcox formation) and ICTs was completed as part of the PSI work activities. The results indicated that cadmium, lead, mercury, selenium, silver, and hexavalent chromium are not chemicals of potential concern due to their absence in groundwater or presence in a few wells below the maximum contaminant levels (MCLs).

The exceptions for groundwater included one arsenic and one chromium exceedance in the Wilcox Formation in 18CPTMW12SW and 18CPTMW07SW, respectively. The concentration of these chemicals in these wells will be reassessed moving forward to add weight to any conclusion based upon these results.

Arsenic, barium, and chromium in the shallow water-bearing zone exceeded the MCLs in several wells. In particular, arsenic and barium appear to be present in a larger area concentrated between the area just to the south of the UEP extending to the south and east of the site while the distribution of chromium exceedances appears to concentrate along the site boundaries to the southwest, northwest, and northeast and to the south of the former UEP. The maximum

concentrations were as follows: arsenic reported in 18CPTMW24 at 0.028 mg/L; barium reported in MW-21 at 10.8 mg/L; and chromium reported in MW-7 at 1.34 mg/L.

Monitored Natural Attenuation

Monitored natural attenuation (MNA) data were collected from three perimeter wells (MW8 in the southwest, 18WW08 in the northwest, and 18CPTMW18 in the northeast). These MNA data included dehalococcoides, TCE and vinyl chloride degradation genes, compound-specific isotope analysis (CSIA) for TCE and cis-1,2-dichloroethylene (cis-1,2-DCE), degradation gases (ethane, ethene, and methane), ferrous iron, alkalinity, chloride, and sulfate. The results indicated no biodegradation is occurring at these locations.

1 INTRODUCTION

AECOM has been contracted by the USACE, Tulsa District, to complete the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Remedial Action (RA) at the LHAAP site LHAAP-18/24 (Burning Grounds #3 and UEP), located in Karnack, Texas. The U.S. Army Base Realignment and Closure (BRAC) Division received administrative control of LHAAP in October 2002. The US Army Environmental Command (AEC) is responsible for funding the Installation Restoration Program (IRP) and MMRP Programs at LHAAP.

This document describes the activities completed for updating the CSM and filling data gaps identified (TCEQ, 2010 and USEPA, 2010) during the feasibility study (FS) at sites LHAAP-18 (Burning Ground No. 3) and LHAAP-24 (UEP/Rocket Motor Washout Facility) (Shaw, 2010).

The information presented in this report is based on the post-screening investigation (PSI) work plan (WP) (AECOM, February 2013) that was developed by AECOM on behalf of the USACE. The WP was reviewed by and concurrence was obtained from the TCEQ and the USEPA.

1.1 LHAAP Background

The LHAAP is an inactive, government-owned, formerly contractor-operated and maintained industrial facility located in central-east Texas in the northeastern corner of Harrison County. The facility occupies approximately 1,400 of its former 8,416 acres located between State Highway 43 in Karnack, Texas, and the western shore of Caddo Lake as shown in **Figure 1-1**. LHAAP was listed as a National Priorities List site on August 9, 1990, due to threatened releases of hazardous substances, pollutants, or contaminants. The USEPA, the Texas Water Commission (now the TCEQ), and the U.S. Army signed a Federal Facilities Agreement on December 30, 1991.

The nearest cities are Marshall, Texas, approximately 14 miles to the southwest, and Shreveport, Louisiana, approximately 40 miles to the southeast.

1.2 LHAAP-18/24 Background

LHAAP-18/24 is a 34.5 acre fenced, cleared area (with an interim remedy that includes a containment area) located in the southeastern section of LHAAP (**Figure 1-2**). The Site is between Avenue Q to the southeast and Harrison Bayou to the northwest. LHAAP-17 (Burning Ground No. 2) is to the southwest (**Figures 1-2** and **1-3**), and heavily wooded areas lie to the east and northeast. The area had been used for the treatment, storage, and disposal of solid and liquid explosive, pyrotechnic, and combustible solvent waste by open burning/open detonation, incineration, evaporation, and burial. LHAAP-18/24 encompasses a number of Defense Environmental Restoration Program Management Information System sites:

- Burning Ground No. 3;
- Rocket Motor Washout Pond;
- Former UEP;
- 24X Holding Area;
- 25X Washout Pad;

- Air Curtain Destructor;
- Three Open Burning Cage;
- Two Open Burning Pan;
- Building 41-X; and
- Building 43-X.

The locations of these sites within LHAAP-18/24 are presented in the Environmental Site Assessment (Plexus, 2005) and identified in **Figure 1-3**. The former UEP/Rocket Motor Washout Facility is located within the northern corner of LHAAP-18/24.

LHAAP-18/24 is generally vegetated with grass and weeds and is crossed by a number of paved roads. It is situated on a natural topographic high slightly west of the crest of a small topographic divide between Harrison Bayou and Saunder's Branch. The topography of the Site has been greatly altered by operations over the past 35 years. LHAAP- 18/24 is mostly level, with more relief near the western corner that contained the air-curtain destructor until 2003 and near the northern corner that contains the mounded surface of the former UEP. No signs of substantial erosion are visible.

Burning Ground No. 3 operated between 1955 and 1998. Historical waste management units include open burn pits, the UEP, stockpiles of solvent-soaked sawdust, and suspected waste burial pits. The UEP was constructed at the burning ground in 1963 as a holding pond to store explosive wastes resulting from the washout of rocket motor casings. In 1973, the pond also began receiving waste water containing solvent residues and solids. An ACD was built in 1979 for the purpose of disposing of explosive and explosive-contaminated wastes by burning.

Use of burn pit and trenches was reportedly discontinued in 1984, and the use of the UEP was discontinued in 1984 when it was discovered that the pond was contaminating groundwater beneath the site. The UEP was closed as a Resource Conservation and Recovery Act (RCRA) interim status surface impoundment in 1986 by removing all waste and capping the impoundment. The last burning cage was removed in 1998.

Wastes removed during the closure of the UEP were disposed of off-site at a RCRA certified disposal facility. As part of the LHAAP-18/24 Interim Remedial Action (IRA), approximately 32,000 cubic yards of source area soil were excavated and treated by low temperature thermal desorption. Some of the treated soil was placed at LHAAP-12 and LHAAP-16.

A groundwater extraction system incorporating approximately 5,000 ft of ICTs and a GWTP was installed in 1997 to control the migration of contaminated groundwater. As of December 2008, approximately 90 million gallons of contaminated groundwater had been treated and released. The treated water is primarily released to Harrison Bayou. Occasionally, the treated water would be released as irrigation water on LHAAP-18/24, as injection water at LHAAP-18/24, or to a holding pond (INF Pond). Between 18 September 2007 and 13 October 2008, four major system modifications were implemented to optimize the interim remedy. These modifications were:

- Injection of GWTP effluent into the shallow groundwater via two former ICTs 6 and 9,
- Conversion of monitoring well 18WW17 to an extraction well,

- Deactivation of ICTs 1, 3, 5, 10 and 12A, and
- Implementation of extraction at EW-1.

1.2.1 Surface Water Hydrology

Harrison Bayou flows within approximately 200 ft of the western corner of LHAAP-18/24. There are no surface water bodies or watercourses running through the Site. Surface drainage occurs in all directions, but flow is generally directed toward Harrison Bayou to the West and by both natural and manmade ditches and drainage swales to the north. Harrison Bayou drains into Caddo Lake, which is located approximately one mile northeast of LHAAP-18/24. The extreme western corner of the Site is located within the 100-year floodplain of Harrison Bayou.

1.2.2 Hydrogeology

Figure 1-4 shows the locations of monitoring wells at LHAAP-18/24. Until recently, the existing CSM described three groundwater zones at LHAAP-18/24: shallow, intermediate, and deep. The three groundwater zones were described as somewhat separated by non-uniform, non-contiguous clay or silty clay layers. The separation between aquifer zones is therefore primarily descriptive and defined by the intervals in which groups of monitoring wells have been completed. The depth of monitoring wells in the shallow groundwater zone was indicated to occur between 10 and 53 ft bgs. The depth of monitoring wells in the intermediate groundwater zone was indicated to occur between 44 and 80 ft bgs. The depth of monitoring wells in the deep groundwater zone was described to occur between 98 and 185 feet bgs.

The CSM was updated on October 18, 2012. The updated CSM describes the presence of two units at LHAAP-18/24: a shallow unit up to a depth of approximately 45 ft bgs (shallow zone), and a deep unit below the shallow zone (Wilcox Formation). Generally, these two units are separated by a contiguous clay layer which is believed to be present across the entire site with the exception of the area to the west and northwest towards Harrison Bayou (i.e., within the floodplain of Harrison Bayou). As an example, it appears that the shallow zone and Wilcox Formation are well separated beyond the eastern edge of the Site (e.g., near 18WW17 and 18WW18), while there is no separation at all just beyond the western corner (i.e., in the vicinity of 18WW02 and 18WW06). In between, the clay layer beneath the shallow zone varies considerably in depth and thickness. Generally, based on the updated CSM, the shallow and shallow/intermediate-screened wells are identified in the shallow zone (up to a depth of 40 feet bgs) and the intermediate and deep-screened wells are identified in the Wilcox Formation (generally below approximately 45 feet bgs).

Figure 1-5 shows the shallow groundwater elevations for June 2012, indicating the groundwater flow in the shallow zone to occur outwardly from the Site in a radial direction. Localized influence of groundwater extraction and reinjection can be observed in the shallow aquifer. Although there are fewer wells in the Wilcox Formation, which prevents construction of a full potentiometric surface, the gradient and direction of flow in the northern portion of the site seem to be similar to the shallow zone; toward Harrison Bayou (**Figure 1-6**).

Groundwater in the deep zone near LHAAP is currently used as a drinking water source. As of 2010, six active water supply wells near the LHAAP were identified (**Figure 1-2**). All these public water supply wells are located greater than two miles from the LHAAP-18/24 site. Karnack Water Supply Corporation operates two source wells servicing the town of Karnack.

These wells were completed in 1905 to depths of 287 and 285 feet bgs and are located hydraulically upgradient approximately one-quarter mile northwest and one-half mile southwest of the town center, respectively. Caddo Lake Water Supply Corporation operates three source wells located north and northwest of LHAAP that have been in use since 1905. These wells are hydraulically upgradient of LHAAP (Jacobs, 2002) with completion depths of 244, 185 and 310 feet below ground surface. Caddo Lake State Park operates one source well located approximately 1.6 miles northwest upgradient of LHAAP. This well was installed in 1905 with a total depth of 292 feet. Due to the large distance between these wells and LHAAP, water removal from these wells is not expected to affect groundwater flow at the site. In addition, there are several livestock and domestic wells located in the vicinity of LHAAP with depths averaging 250 ft. There are three water supply wells located within LHAAP (see **Figure 1-2**) upgradient of LHAAP-18/24. These water wells supply water to buildings currently in use on the installation. Their approximate locations and depths are as follows:

- 150 ft south-southeast of the fire station approximately 2 miles from LHAAP-18/24; 128 ft deep
- ½ mile southwest of the fire station approximately 2 miles from LHAAP-18/24; 195 ft deep
- At the U.S. Fish and Wildlife Service facility approximately 2.6 miles from LHAAP-18/24; 220 ft deep

None of these wells are close to LHAAP-18/24, and none of these wells are used for drinking water. Two additional wells that had previously supplied water to the installation have been plugged and abandoned. None of the water supply wells are associated with or are in imminent danger from the localized contaminated groundwater at LHAAP-18/24.

1.3 Previous Investigations and Remedial Actions

The environmental media (e.g., soil, groundwater, surface water, and sediment) at LHAAP-18/24 have been the subject of numerous investigations to identify potential contamination. Those investigations are summarized in **Table 1-1**.

In addition to the IRAs described above, several remedial actions have been conducted at LHAAP-18/24. These are summarized in **Table 1-2**.

1.4 Organization of Report

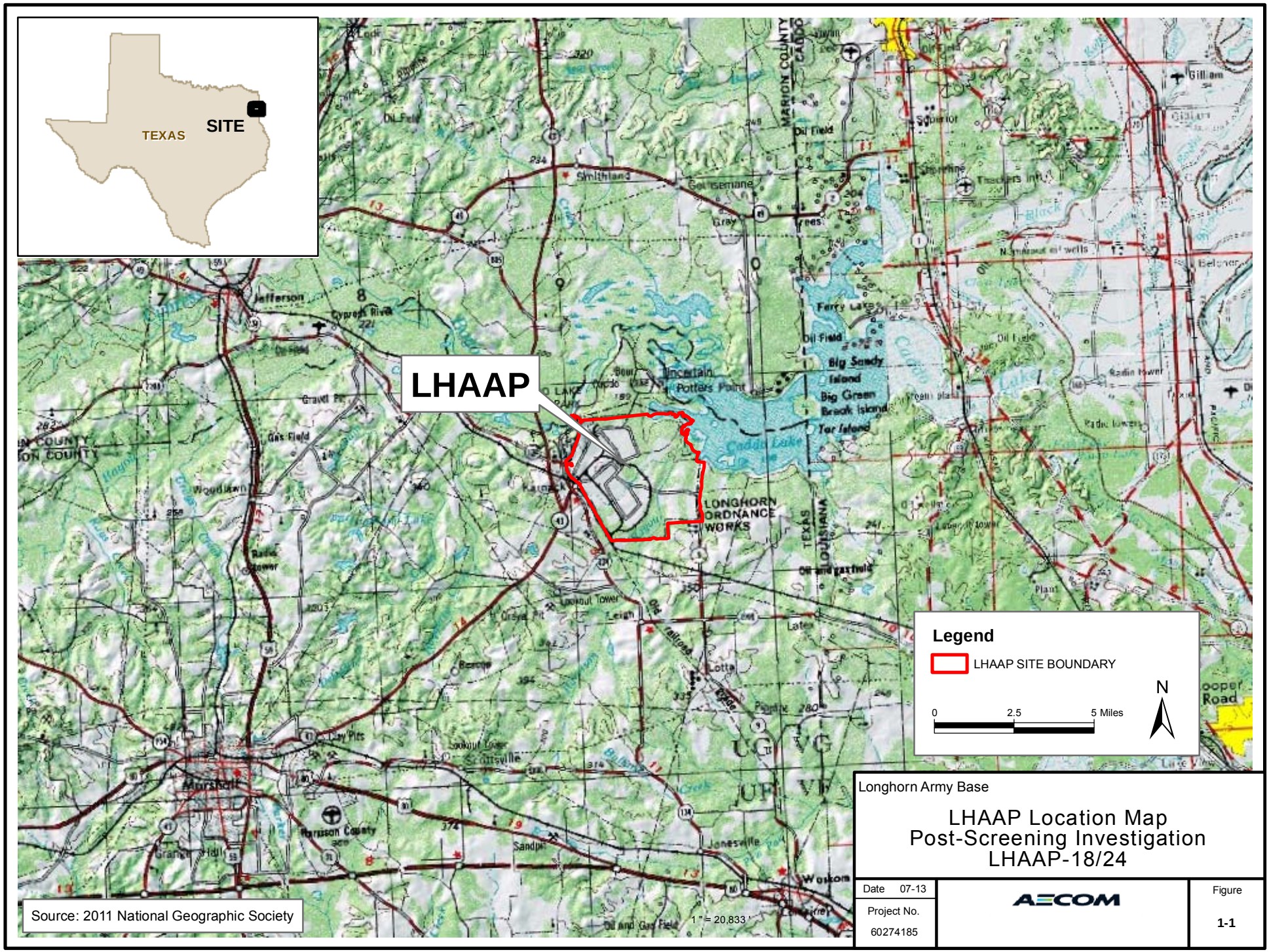
This report has been organized in the following sections:

- *Section 1: Introduction* - summarizes the site background including previous investigation and remediation activities, and provides the purpose, scope of work, and objectives of the WP
- *Section 2: Investigation Activities* - describes the completed scope of work and the sampling and analysis methodology to address the Site data gaps identified. Deviations from the PSI WP (AECOM, February 2013) are presented in this Section
- *Section 3: Investigation Findings* – provides a presentation of the data, updates to the CSM, and analysis of the data gaps, and analyzes the findings

- *Section 4: Investigation* Summary - Summarizes the main findings
- *Section 5: Conclusions and Recommendations* – Provides main conclusions and recommendations
- *Section 6: References* - provides a list of references cited in the document.

This PSI Report also includes a number of appendices supporting the main text:

- Appendix A: Field Boring Logs & CPT/MIP Logs
- Appendix B: Lithologic Cross-Sections
- Appendix C: Groundwater Sampling Logs
- Appendix D: Quality Control Summary Report & Laboratory Analytical Reports (CD)
- Appendix E: Soil Saturation Determination
- Appendix F: Geotechnical Testing Report



Longhorn Army Base

LHAAP Location Map
Post-Screening Investigation
LHAAP-18/24

Date 07-13	AECOM	Figure
Project No. 60274185		1-1

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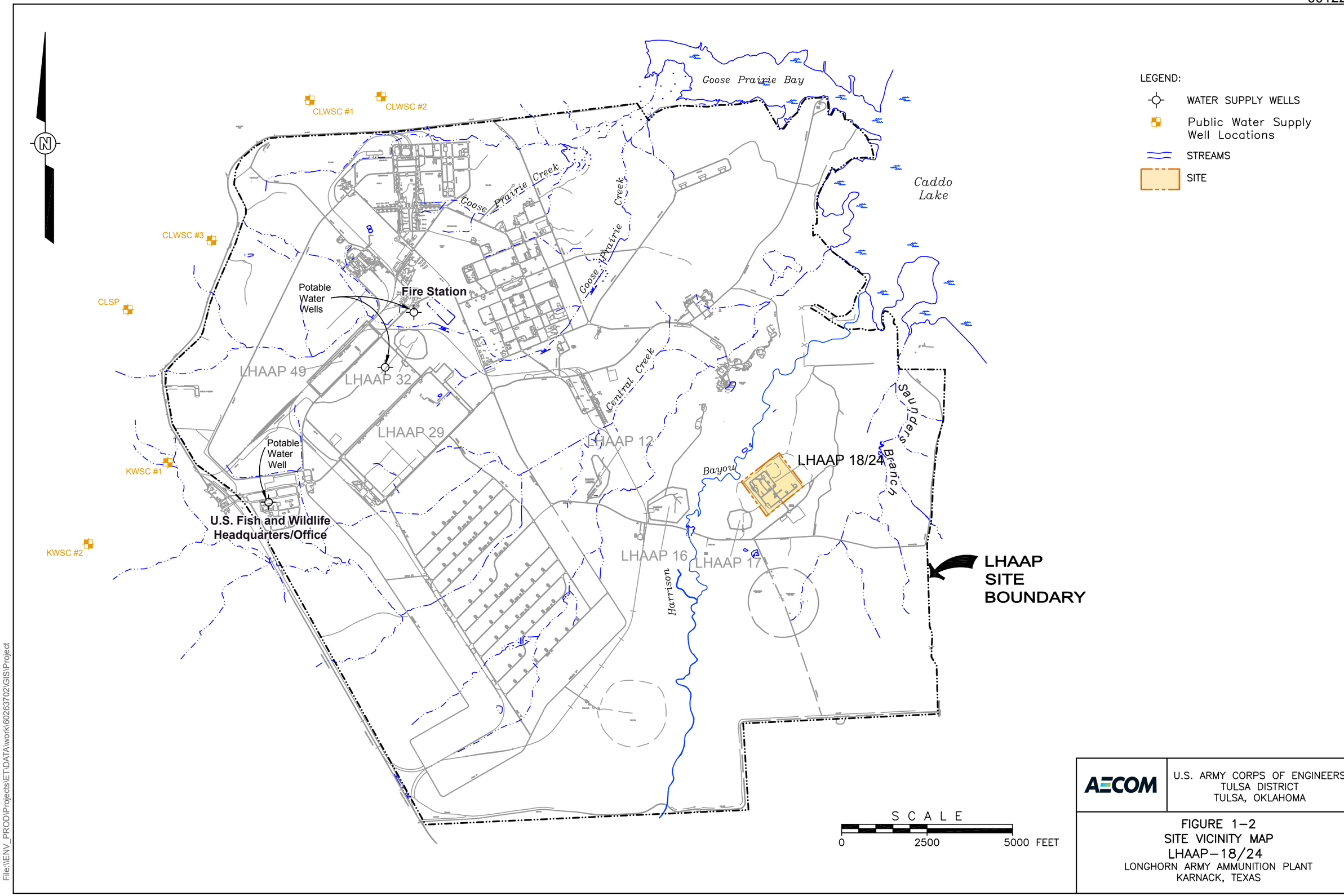

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FIGURE 1–2
SITE VICINITY MAP
LHAAP–18/24
LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

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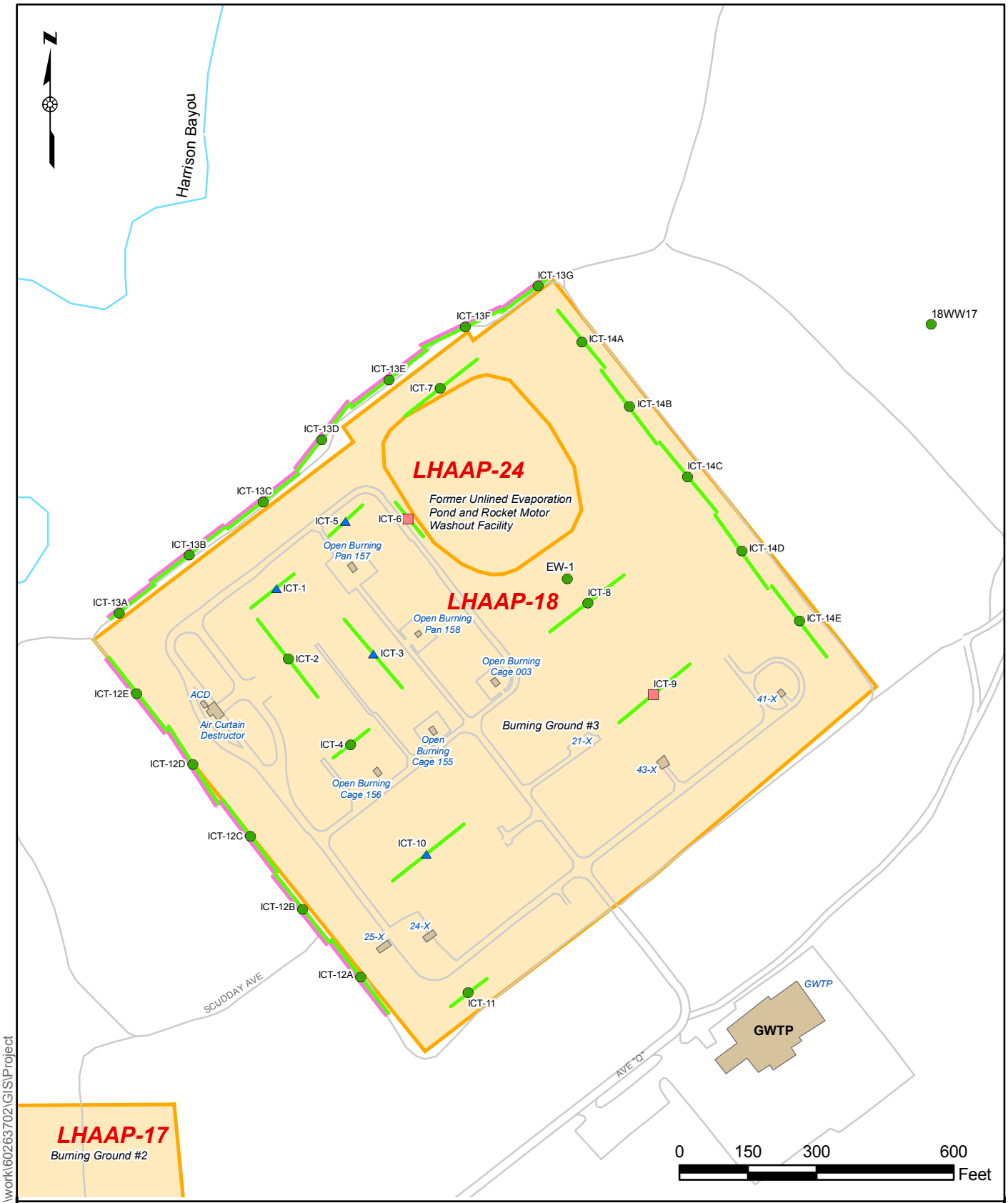

LEGEND

- Extraction Location
- Deactivated ICT Sump
- Injection Point
- ICT Location
- HDPE Liner Installed on the Outside of the ICT
- Stream
- Road
- Building or Pad
- Site

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TULSA, OKLAHOMA

Figure 1-3
Site Layout
LHAAP-18/24
Longhorn Army Ammunition Plant, Karnack, TX

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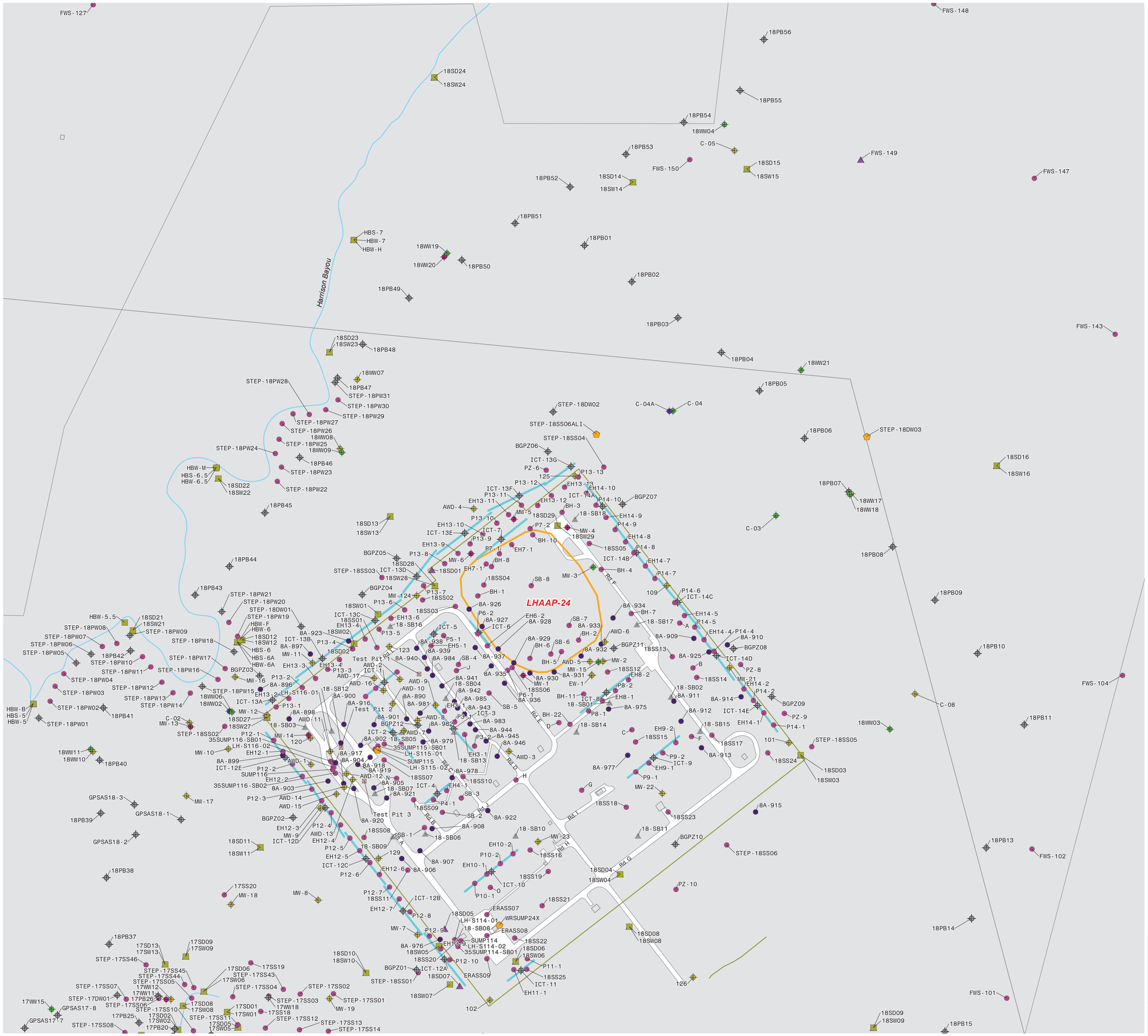

LEGEND

- DEEP SOIL BORING
- SOIL BORING
- TEST PIT
- SHALLOW
- LOWER SHALLOW
- SHALLOW/INTERMEDIATE
- INTERMEDIATE
- UPPER DEEP
- DEEP
- MULTIPLE
- NO ZONE DATA
- SOIL BORING LOCATION (SHAW 2011)
- SED
- SEEP
- SLDG
- SOIL
- SWTR
- OTHER
- FENCE
- ICT LOCATION

ABBREVIATIONS

SED	SEDIMENT
SLDG	SLUDGE
SWTR	SURFACE WATER

N

0 95 190 Feet

1 " = 200 '

Longhorn Army Base

Samples Collected Prior to Implementation of PSI Work Plan
LHAAP-18/24
Longhorn Army Ammunition Plant
Karnack, TX

Date 09-13	AECOM	Figure
Project No. 60263702		1-4

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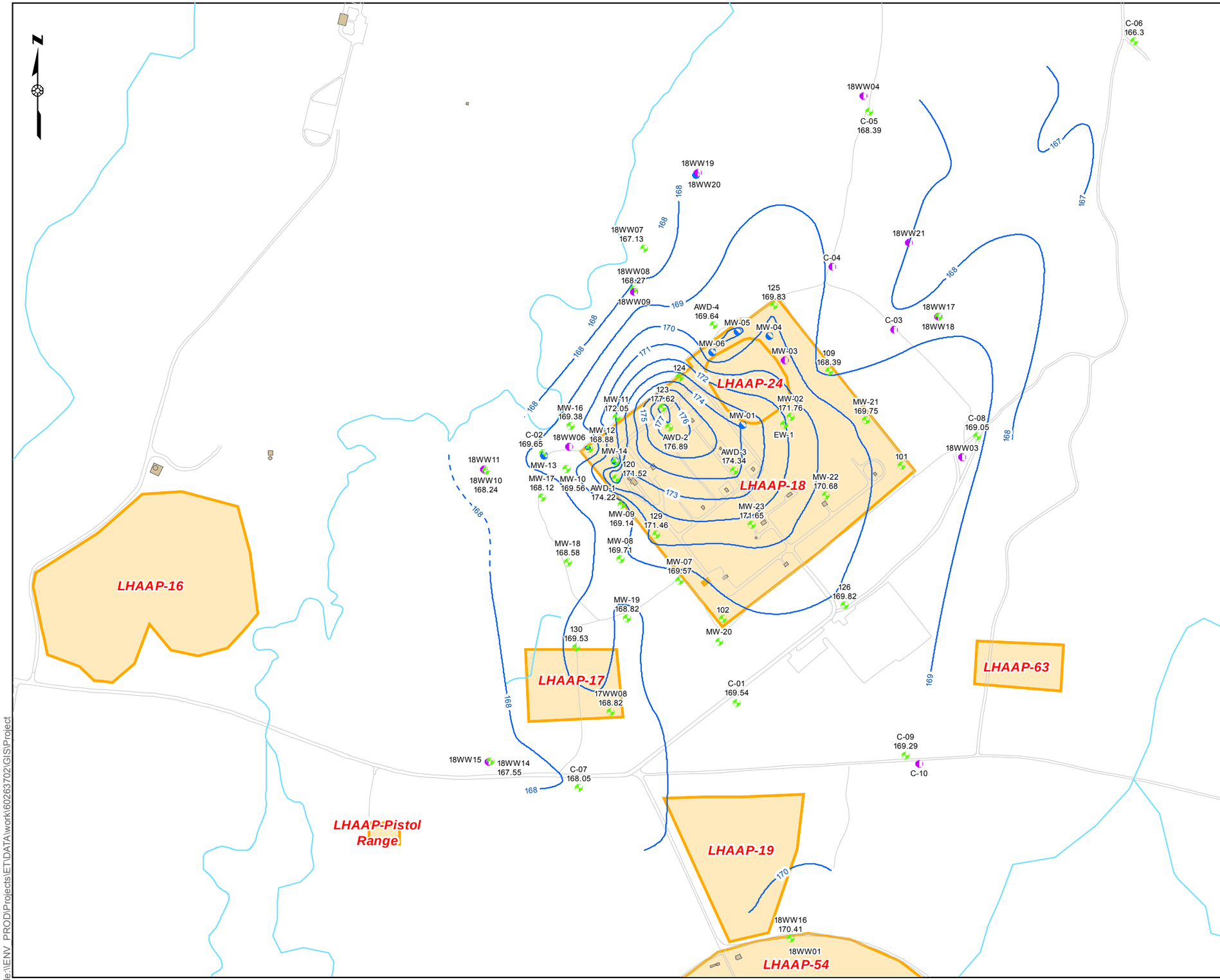

LEGEND

- Shallow Monitoring Well (Shallow Zone)
- Shallow/Intermediate Monitoring Well (Shallow Zone)
- Intermediate Monitoring Well (Wilcox Formation)
- Inferred Groundwater Elevation Contour
- Groundwater Elevation Contour
- Stream
- Road
- Former Building or Concrete Slab
- Site

Note: Groundwater Collection System Not Operating

Source: Shaw, 2010 - Draft Final Feasibility Study - not modified

0 250 500 1,000 Feet

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TULSA, OKLAHOMA

Figure 1-5
Groundwater Potentiometric Surface Map - Shallow Zone (June 2012)
Prior to Implementation of PSI Work Plan
LHAAP-18/24
Longhorn Army Ammunition Plant, Karnack, TX

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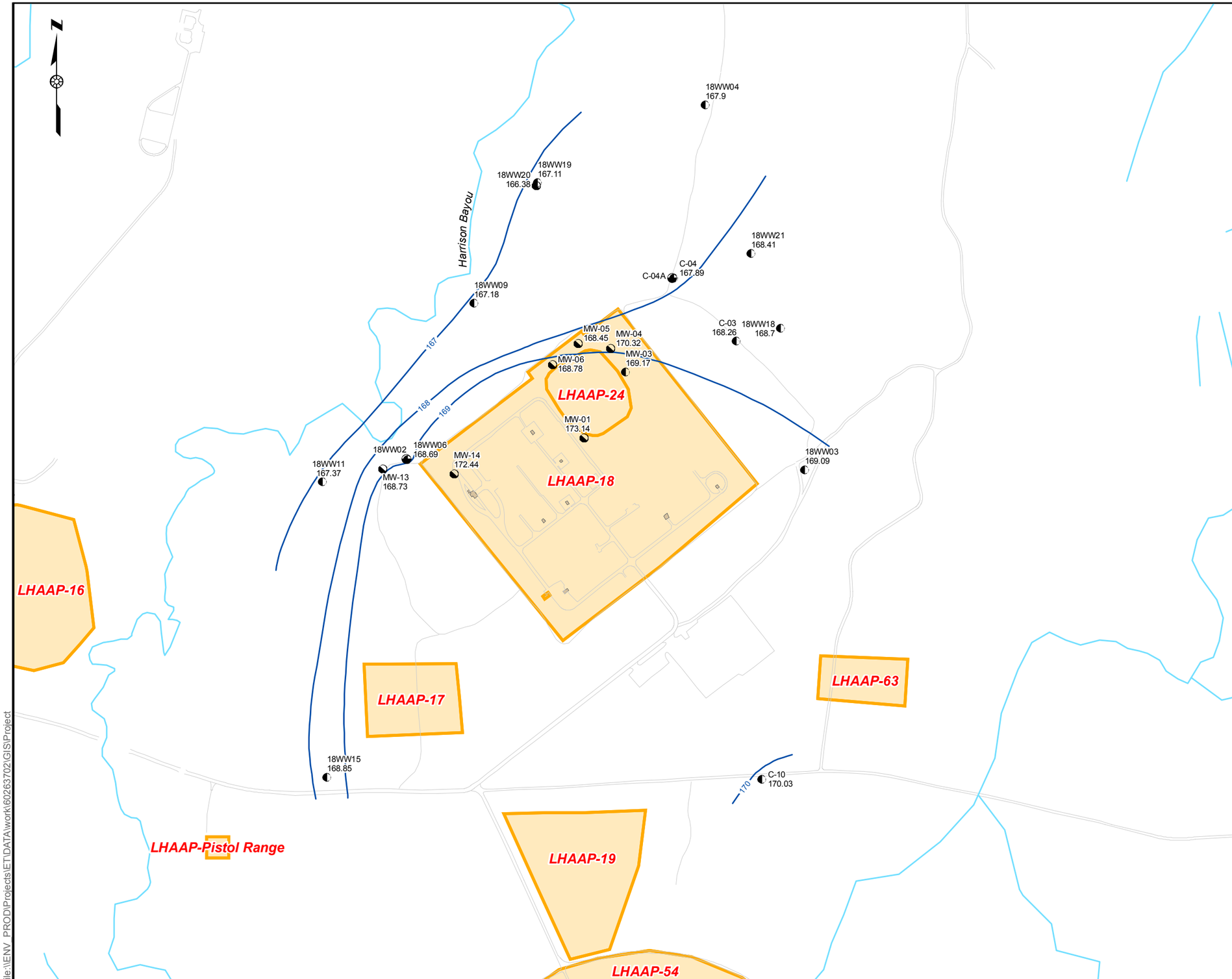

LEGEND

- Shallow/Intermediate Monitoring Well (shallow zone)
- Intermediate Monitoring Well (Wilcox Formation)
- Deep Monitoring Well (Wilcox Formation)
- Groundwater Elevation Contour
- Stream
- Road
- Former Building or Concrete Slab
- Site

Notes:
1. Groundwater elevations measured in October 2008.
2. Elevation measurements at shallow/intermediate wells MW-01, MW-04, MW-14, and 18WW20 are not considered representative of the intermediate zone and were not used to generate potentiometric surface as shown. Injection and extraction cause local variability near these wells.
3. Source: Shaw 2010 - Draft Final Feasibility Study.

0 250 500 1,000 Feet

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TULSA, OKLAHOMA

Figure 1-6
Intermediate Zone Potentiometric Surface Map
Prior to Implementation of the PSI WP
LHAAP-18/24
Longhorn Army Ammunition Plant, Karnack, TX

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Table 1-1: Summary of Previous Investigations at LHAAP-18/24*

USACE Remedial Investigations	
Pre-Phase I (Jacobs, 2001)	
USAEHA, 1980	Thirteen monitoring wells were installed and sampled (BH-1 to BH-11, BH-21, BH-22)
EPS, 1982	Nine Monitoring Wells were installed (101, 102, 109, 120, 123-126, and 129)
	Twenty-two monitoring wells were sampled (BH-1 series and the 9 newly installed wells)
CDM, 1986	Ten monitoring wells were installed (C-01 through C-10)
	Groundwater samples were collected from C-01 through C-10 and 18 existing monitoring wells
EPS, 1987	Groundwater samples were collected from three existing monitoring wells (BH6, BH11, and 102)
LHAAP RI/FS WP Volume,1 General June 1992 (USACE Ft Worth District)	
• 1987 sampling of eight wells (101,102, 109, 120, 123, 124, 125, & 129) for explosives, VOCs, total organic compound (TOC), total organic halide, & total & dissolved metals • Completion and sampling of 47 shallow borings • Completion and geophysical logging of 4 deep borings • Installation & sampling of 12 shallow monitoring wells (MW-1 through MW-12) • Installation & sampling of 3 deeper monitoring wells (MW-13 through MW-15) • Slug testing of all 15 new wells • 1988 September Groundwater samples were collected & tested from 25 wells (C-2 through C-5, 109, 120, 123, 124, 125, 129, & fifteen new wells) • 1989 Installation of 8 shallow monitoring wells (MW-16 through MW-23) and 1 deeper monitoring well (C-4A) • 1989 Geophysical logging the deep well boring for C-4A • 1989 November Groundwater samples were collected from all existing wells	
Data Summary Report of Investigations Results from 1976 through 1992 for Burning Ground 3 & the UEP, May 1993	
• 1990 June and September groundwater samples were collected for testing at MW-1 through MW-15 • 1992 November, the COE sampled 41 of the 49 wells at the site ((MW-1 through MW-23, C-1 through C-10 (including C-4A) 102, 103, 109, 120, 124, 126, 129, 130, BH-6,) to obtain data necessary for evaluating IRA alternatives and monitor plume concentrations and migration.	
Phases I of the Remedial Investigation (Jacobs, 2001)	
Jacobs, Phase I, 1993	Eight surface water and eight sediment samples were collected (18SW01 to 18SW08 and 18SD01 to 18SD08)

USACE Remedial Investigations	
IRA Phases I, II, and III Investigation (AWD/DOW Environmental Inc./Radian 1993- 1998)	
AWD Technologies IRA Phases I Report February 1994	• 1993-Four new monitoring wells were installed in the shallow saturated zone (AWD-1,-2, -3 & -4) and one extraction well (EW-1) • Soil samples for geotechnical data (Physical) and Chemical testing were collected for all five wells • Slug test were performed on the new wells • 1993 Groundwater samples were collected from all existing monitoring wells and new wells • 1993 Eight new soil borings (SB-1 through SB-8) were completed and sampled • 1993 Three test pits were dug and samples collected for Treatability tests • All new wells and borings were surveyed for state plane coordinates and elevations • Groundwater elevations were collected for all existing monitoring wells and five new wells
DOW Environmental, Inc. (DEI) (Formerly AWD Technologies, INC.) Pilot Study Report - Phase II March 1995	• June 1994 Groundwater sampling and testing of 48 monitoring wells and the vertical extraction well (VEW) designated EW -1 which was installed during the implementation of the Phase I work. • 1994 Installation of a horizontal extraction well (HEW) under the ACD with soil sampling during installation and groundwater sampling from HEW after installation • 1994 Completion of Thirteen Soil Borings (AWD-5 through AWD-17) to investigate possible source material locations (around the ACD, in pits and the UEP) and to obtain information for installation of the Pilot Study ICT sections, samples were collected for physical and chemical testing • October/November, 1994.Groundwater sampling and testing of 48 monitoring wells and EW -1 following the completion of the flow tests in July/August
Phases II of the Remedial Investigation (Jacobs, 2001)	
Jacobs, Phase II, 1995	Eight surface water and eight sediment samples were collected (18SW01 to 18SW08 and 18SD01 to 18SD08)
	Eighteen surface water and 18 sediment samples were collected (18SW09 to 18SW26 and 18SD09 to 18SD26)
	Twenty-five soil samples were collected from 25 soil borings (18SS01 to 18SS25)
	Five deep soil borings were completed (18SB01 to 18SB05) for stratigraphic information
	Eighteen monitoring wells were installed (18WW01 to 18WW11 and 18WW14 to 18WW20) and groundwater samples were collected from each new well

USACE Remedial Investigations	
Phases III of the Remedial Investigation (Jacobs, 2001)	
Jacobs, Phase III, 1998	Three surface water and three sediment samples were collected (18SW27 to 18SW29 and 18SD27 to 18SD29)
	Groundwater samples were collected from three existing wells (MW-1, MW-02, and MW-14)
Radian (Formerly DEI) Cost & Performance Report April 1999	
1998 Groundwater samples were collected & tested for all remaining monitoring wells and ICT sumps	
Additional Investigations	
Perchlorate Investigation (STEP, 2005)	
Environmental Site Assessment (Plexus, 2005)	
Data Gaps Investigation (Shaw, 2007)	
Final Sumps Evaluation (Shaw, 2008)	
Direct Push Groundwater Sampling at 12 locations (Shaw, 2010)	
Routine Sampling of Existing Groundwater Treatment System (Quarterly Reports, Shaw)	

* From Draft Final Feasibility Study, LHAAP-18/24, Burning Ground No. 3 and Unlined Evaporation Pond, Longhorn Army Ammunition Plant, Karnack, Texas

Table 1-2: Summary of Previous Remedial Actions at LHAAP-18/24*

Date	Remedial Action
1980	The ACD began operation in 1980 burning non-hazardous waste. It operated through 2003, when it was removed.
1984	The burn pits were sampled, and contaminated soil and ash were removed to a permitted facility. The pits were backfilled with clean soil and grassed (TWC, 1988).
1986	8,116 cy of mostly barium and heavy metals sludge from the UEP were stabilized with Portland cement, removed, and sent to a permitted landfill in Carlyss, Louisiana. The pond was then capped (Jacobs, 2001).
1995	Seven monitoring wells were abandoned during the Phase II Remedial Investigation activities (BH-3, BH-4, BH-7, BH-11, BH-22, 124, and MW-15).
1995	Sumps 114, 115, and 116 were removed and disposed off-site as hazardous waste (114) or on-site as non-hazardous waste (115 and 116).
1997	An IRA was implemented. That action consisted of two major elements: • 32,000 cy of source soil were excavated and treated by low temperature thermal desorption, then placed at LHAAP-16 and LHAAP-12 (Jacobs, 2001) • 5,000 linear ft of interception collection trenches were installed with a vertical liner along the northwest and northeast boundaries of LHAAP-18/24, and a GWTP was constructed across the road to the southeast (Jacobs, 2001).
1999	In February 1999, 68 cy (57 tons) of soil were removed around open burning cage LHAAP-22W (Unit No. 6). All open burning cages and pans were also removed at this time.
1998 to Present	The groundwater extraction system is operated to control migration of contaminated groundwater. The GWTP removes contaminants from the extracted groundwater and then releases the treated water either by direct discharge to Harrison Bayou, irrigation at LHAAP-18/24, discharge to a holding pond, or (more recently) injection into the shallow groundwater at LHAAP-18/24. The GWTP is comprised of metals precipitation, air stripping, catalytic oxidation, and a fluidized bed reactor for the treatment of perchlorate which was added in 2002. In July 2007, a six day reinjection test of treated groundwater to ICTs 6 and 9 was conducted and on September 18, 2007, reinjection of treated groundwater into ICTs 6 and 9 was implemented on a long-term basis.

* From Draft Final Feasibility Study, LHAAP-18/24, Burning Ground No. 3 and Unlined Evaporation Pond, Longhorn Army Ammunition Plant, Karnack, Texas

2 INVESTIGATION ACTIVITIES

This section presents the completed investigation scope of work, the sampling and analysis methodology, and deviations from the PSI WP (AECOM, February 2013).

2.1 Data Gaps and Proposed Investigation Scope of Work

The scope of work was divided into five areas to facilitate the identification of data gaps and develop the data collection strategy. These areas are:

- The containment area,
- Southwest of the containment area,
- Southeast of the containment area,
- Northwest of the containment area, and
- Northeast of the containment area.

A summary of data needs and corresponding scope elements as identified in the PSI WP is provided in **Table 2-1**.

2.2 Summary of Site Investigation

The investigation activities completed to collect necessary data to address the data gaps identified in **Table 2-1** are presented below.

2.2.1 Background

The site has undergone numerous investigations to determine the subsurface geology and potential contamination beneath the site from which a CSM was developed. As a result of these investigations several remedial actions have been enacted and are currently in operation. The investigations and remedial actions that have occurred at the site are summarized in **Table 1-1** and **Table 1-2**, respectively.

Until recently, the existing CSM described three ground water zones beneath the site, shallow, intermediate, and deep. The three groundwater zones were described as being separated by non-uniform, non-contiguous clay or silty clay layers; and therefore, was primarily descriptive and defined by the intervals in which groups of monitoring wells have been completed. Based on the previous investigations, AECOM updated the CSM on behalf of USACE on October 18, 2012. The updated CSM describes the presence of two groundwater-bearing units separated by a contiguous clay layer believed to be present beneath the site with the exception of the areas to the west and northwest.

The purpose of this investigation was to develop a more accurate CSM by filling in the data gaps which were not previously addressed in the earlier investigations. The investigation involved the drilling and sampling of 30 soil boring locations using one or more of the following investigative methods: CPT, DPT, HSA, and mud rotary drilling techniques. Of these soil borings 21 were developed into groundwater monitoring wells.

The subsurface field investigation was conducted between February 25 and April 19, 2013 and between May 1 and May 17, 2013. Prior to conducting drilling and other subsurface activities

during this investigation, the Texas One Call System was notified to locate underground utilities. The Texas One Call System was periodically updated during the course of the investigation.

2.2.2 Subsurface Soil Assessment

The subsurface soils in the investigation were assessed by conducting drilling and sampling activities at 30 locations on the site using CPT, DPT, HSA, and mud rotary drilling techniques. Depending on the data requirements for each location and the depth of the borehole, multiple drilling techniques were utilized at each of these locations. The borehole depths ranged from 29 to 102 ft bgs across the site. **Figure 2-1** presents the location of completed boreholes with the exception of shallow zone monitoring well 18WW22 (co-located with C-04), which was drilled and completed without borehole soil sampling or description. Information relating to 18WW22 is included below. The soil boring logs are attached in **Appendix A**.

2.2.2.1 CPT/MIP

The initial portion of the investigation from February 26 to March 6, 2013 involved the use of the CPT/MIP rig to identify the lithology and screen for soil and groundwater sample locations (i.e., to identify locations with VOC impacts). The scope of work followed the scope identified in **Table 2-2** of the PSI WP (AECOM, February 2013) with a few exceptions that will be discussed below.

The CPT rig is a method of providing real-time data for use in the characterization of the subsurface. It uses push technology to advance a tool containing sensors measuring cone-tip pressures and friction down hole to collect data to interpret the lithology. The CPT/MIP was primarily utilized to identify the lithologies in the upper 45 ft of the subsurface (shallow water-bearing zone), with the exception of location 18CPT01 where the CPT was utilized to identify the lithologies to 69 ft bgs. The MIP attached to the probe records the concentration of organic vapor as it is advanced into the subsurface. The detectors used included a flame ionization detector (FID), photoionization detector (PID), and dry electrolytic conductivity detector (DELCD). The MIP results are considered semi-quantitative and are used for screening purposes. Traditional soil sampling and analysis were collected to confirm concentrations. Note that MIP was only collected at 18CPT01 to a depth of 43 feet bgs.

During the course of the investigation 24 boreholes were advanced with the CPT rig across the site. These boreholes were 18CPT01 through 18CPT15 and 18CPT19 through 18CPT27. With the exception of 18CPT15, 18CPT19, 18CPT23, and 18CPT24, and according to the PSI WP, MIP was run simultaneously with the CPT. The methodology used to conduct CPT/MIP drilling activities followed the procedures presented in AECOM SOP 13 presented in the Draft Installation-Wide Work Plan (AECOM, July 2013).

Due to the lack of accessibility CPT/MIP activities could not be conducted at 18CPT16, 18CPT17, and 18CPT18 locations. Instead, DPT methods were employed using a track-mounted Geoprobe™. At these locations the lithologies were described from soil samples. A PID equipped with a 11.2 eV lamp was utilized to screen the soils samples for VOCs. The methodology used to screen and obtain soil samples followed the procedures described in AECOM SOP 01 and SOP 05 presented in the Draft Installation-Wide Work Plan (AECOM, July 2013)..

2.2.2.2 DPT

DPT drilling methods were used from March 7 to April 11, 2013 at 21 drill site locations (18CPT02 through 18CPT10, 18CPT12, 18CPT13, 18CPT17 through 18CPT21, 18CPT25 through 18CPT27, 18SB01-2013, and 18SB02-2013) to identify the lithologies in the subsurface and to confirm the lithologies identified by the CPT rig. In addition, the DPT was used to obtain soil and groundwater samples based on the CPT/MIP data or PID screening, as specified in the PSI WP (AECOM, February 2013). Soil samples collected with the Geoprobe occurred at borings 18CPT02, 18CPT03, 18CPT05, 18CPT09, 18CPT13, 18CPT20, 18CPT21, and 18CPT 25 through 18CPT27. The general procedures used in DPT drilling are described in AECOM SOP 16 presented in the Draft Installation-Wide Work Plan (AECOM, July 2013).

2.2.2.3 HSA

A drill rig equipped with 8 ¼ -inch outer diameter augers was used to drill boreholes and obtain soil samples. A five-ft continuous split barrel sampler was primarily utilized to obtain continuous core samples and to collect soil samples. The soil samples were collected based on the CPT/MIP data at the following locations: 18CPT01, 18CPT06 through 18CPT08, 18CPT10, and 18CPT12.

The larger 10 ¼ - inch outer diameter HSA augers were utilized to install 4-inch diameter monitoring wells in the shallow formation once the borehole was drilled and sampled. Shallow formation wells include: 18CPTMW04, 18CPTMW14, 18CPTMW15, 18CPTMW16, 18CPTMW18, 18CPTMW19, 18CPTMW22, 18CPTMW23, 18CPTMW24, and 18WW22. A summary of this information is provided in **Table 2-2**. **Table 2-2** also provides information linking the boring location nomenclature with the monitoring wells and provides well coordinates, top of casing elevations, and coordinates and vertical datum for CPT/DPT locations.

2.2.2.4 Mud Rotary

Mud rotary drilling was primarily utilized to install only for depths unable to be reached by HSA methods the 10 - inch surface casing and for drilling below the confining layer into the deep water bearing zone (Wilcox Formation) due to the challenging geologic conditions (flowing sands) encountered at those depths. The surface casing was installed using a 14-inch outer diameter mud rotary drill bit. The drill bit was advanced to a confining layer (clayey layer) that was previously identified by CPT, DPT, or HSA drilling methods at the drill site. Once the soil boring, using mud rotary drilling methods, was drilled to the confining layer, the surface casing (10-inch Schedule 40 PVC) was constructed and lowered in the borehole. Approximately one ft of the surface casing was pushed into the confining layer to help form a seal. The surface casing was then grouted into place with Type I/II Portland Cement with 3 to 5% bentonite via tremie pipe.

Surface casing was installed in the following soil borings/ monitoring wells: 18CPTMW01DW, 18CPTMW01SW, 18CPTMW08DW, 18CPTMW08SW, 18CPTMW10DW, 18CPTMW10SW, 18CPTMW12DW, 18CPTMW12SW, 18CPTMW04SW, 18CPTMW06SW, and 18CPTMW07SW. The depths of the surface casing ranged from 28 to 42 ft bgs. A summary of this information is provided in **Table 2-2**. These locations were re-drilled through the surface casing and into the deeper formation, preventing potential cross contamination.

2.2.2.5 Subsurface Soil Samples

Fifty-eight discrete soil samples (compared to up to 80 soil samples specified in the PSI WP) were collected for chemical analyses including perchlorate, VOCs, moisture, and pH during the site investigation. During the investigation the soil samples were obtained using DPT or HSA drilling techniques within the upper 45 ft of the subsurface (shallow groundwater-bearing zone). The soil samples were generally selected based on a combination of elevated MIP results and soil type; however, soil samples were also selected where MIP responses were low in various soil types to confirm non-detect/low concentrations of VOCs. According to the PSI WP, no soil samples were obtained for chemical analysis below 45 ft within the deeper groundwater-bearing zone. The methodology used to obtain subsurface soil samples followed the procedures described in AECOM SOP 05 presented in the Draft Installation-Wide Work Plan (AECOM, July 2013)..

The soil samples were submitted to Microbac Laboratory, a Texas licensed laboratory located in Marietta, Ohio for chemical analyses. The packaging and shipment of soil samples to the laboratory followed the procedures described in AECOM SOP 08 presented in the Draft Installation-Wide Work Plan (AECOM, July 2013)..

Geotechnical soil samples were obtained in the upper 45 ft of the subsurface at select soil borings in accordance with the PSI WP which included 18CPTMW01DW, 18CPTMW08DW, 18CPTMW10DW, and 18CPTMW23. The geotechnical soil samples were submitted to ETTL for testing for porosity by ASTM D2434, grain size distribution by ASTM D422-63, specific gravity by ASTM D854-06, TOC by SM20 5310, and permeability by ASTM D5084-03. No geotechnical soil samples were obtained below 45 ft.

2.2.3 Groundwater Assessment

The AECOM updated CSM for LHAAP-18/24 dated October 18, 2012 identified the presence of two groundwater bearing units beneath the site; a shallow unit up to a depth of approximately 45 ft bgs (shallow zone), and a deeper unit (Wilcox Formation). Both water bearing zones appear to be separated by a contiguous clay layer (confining layer) that is believed to be present beneath the majority of LHAAP-18/24 with the exception of the areas to the north and northwest. To further assess these two water bearing zones a total of twenty-one monitoring wells were installed during this investigation. The methodology utilized to install the monitoring wells varied depending on the depth of the monitoring wells. Monitoring wells completed in the shallow water-bearing zone were drilled and installed using an HAS drill rig. Monitoring wells completed in the deeper water-bearing zone were drilled and installed using mud rotary drilling techniques and were isolated with surface casings tied into the clay layer. The location of the new and existing monitoring wells is presented in **Figure 2-2**.

2.2.3.1 Shallow Water-Bearing Zone

To further assess the shallow zone beneath the site, 10 monitoring wells (18CPTMW04, 18CPTMW14, 18CPTMW15, 18CPTMW16, 18CPTMW18, 18CPTMW19, 18CPTMW22, 18WW22, 18CPTMW23, and 18CPTMW24) were installed with a drill rig equipped with 10.25” diameter HSAs. In some instances, to allow continuous soil sampling, the initial boreholes were drilled with 8.25” HSAs. The larger augers were later used to ream out the smaller borehole to install the monitoring well.

The shallow monitoring wells were constructed of 4-inch diameter schedule 40 PVC casing using 0.01-inch slotted screens. Depending on the lithology, the screens ranged in size from approximately 9.5 to 19.5 ft in length. Silica sand (20/40) was utilized for a filter pack which was placed in the annular space between the borehole wall and the screen to at least two ft above the screen. The well was pre-developed (surged) after the placement of the filter pack using a surge block for approximately 15 minutes. If needed, additional sand was added after surging to keep the top of the filter pack approximately 2 ft above the top of screen. A seal at least 3 ft thick, consisting of bentonite pellets (3/8-inch), was used on top of the sand pack. Grout, consisting of Type I/II Portland Cement with 3 to 5 % bentonite was used to seal up the remaining annular space of the borehole. The grout was delivered via tremie pipe from the bottom of the hole upward.

Upon completion of grouting activities, and allowing for the grout to set up, surface completion activities (well pad, well protector, bollards, labeling and painting) were completed. For additional description of monitoring well construction procedures, please see AECOM SOP 12 presented in the Draft Installation-Wide Work Plan (AECOM, July 2013)..

2.2.3.2 Deep Water-Bearing Zone (Wilcox Formation)

To further investigate the deep water bearing zone, 11 monitoring wells were installed below the clay layer that separates the shallow water-bearing zone from the Wilcox Formation. Four monitoring wells (18CPTMW01DW, 18CPTMW08DW, 18CPTMW10DW, and 18CPTMW12DW) were installed at depths of approximately 100 ft bgs to assess the deeper portions of this water-bearing zone. Seven monitoring wells (18CPTMW01SW, 18CPTMW08SW, 18CPTMW10SW, 18CPTMW12SW, 18CPTMW04SW, 18CPTMW06SW, and 18CPTMW07SW) were installed at depths ranging from 52 ft to 63.9 ft bgs to assess the shallower portions of the deep water-bearing zone.

The wells completed in the deep water bearing zone were installed using mud rotary drilling techniques due to challenging geologic conditions of flowing sands that were encountered at location 18CPT01, 18CPT04, 18CPT06 through 18CPT08, 18CPT10, and 18CPT12. Prior to installing these wells surface casing was installed through the shallow water-bearing zone to remove the potential of groundwater migration between the shallower and deeper water bearing zones through the monitoring well borehole. See the previous section for the description of the installation of the surface casing and AECOM SOP 12 presented in the Draft Installation-Wide Work Plan (AECOM, July 2013)..

The grout surrounding the surface casing was allowed to set a minimum of 24 hours prior to the installation of the monitoring well. Once the grout had set the drilling mud was removed from within the surface casing prior to advancing the borehole. The old drilling mud was removed by either pumping out the mud or replacing the old drilling mud by displacing it with new heavier mud using a tremie pipe placed at the bottom of the hole.

Once the drilling mud had been replaced the drilling and installation of the monitoring well continued. To determine whether or not monitoring wells 18CPTMW01DW, 18CPTMW08DW, 18CPTMW10DW, and 18CPTMW12DW were to be completed in the deeper portion of the deep water bearing zone a discrete groundwater sample (grab sample) was obtained near the deep water-bearing zone surface just below the confining layer. The sample was used to determine whether contamination was present within the upper area of the deep-water bearing zone. If the

groundwater sample indicated the presence of contamination in the shallow area of the deep water-bearing zone, two wells were installed within the deep water-bearing zone, one well near the upper portion at approximately 65 ft bgs top monitor contaminant levels and one at approximately 100 ft bgs to document that contamination is bounded. Since all the samples from the shallow area of the deep water-bearing zone were impacted, deep wells were installed at each these four locations.

To obtain a groundwater sample in the upper portion of the deep water-bearing zone, a CPT rig was used on 18CPTMW01DW, and a DPT rig was used on the remaining three wells. Both drilling methods were used to identify the lithology (base of confining layer). The lithologies were identified with the CPT rig using remote sensors to a depth of 69 ft bgs, while visual observations were made on soil samples obtained from the DPT rig at depths ranging from 64 to 65 ft bgs.

The methodologies to obtain groundwater grab samples varied slightly between each drill rig. In the CPT rig a sealed sampling device with a covered screen was pushed to the desired depth and opened by pulling up the drill pipe allowing water from that depth to enter the sampling device. Dedicated polyethylene tubing with a check valve was lowered into the water through the drill pipe. Water was obtained by moving the tubing up and down allowing the water to move up the tubing to obtain a groundwater sample. For the DPT locations, the sampling tube with an expendable tip was pushed to the desired depth and raised up to 4 ft leaving an open hole with the expendable tip at the bottom. Metal tubing with a screen connected at the bottom was lowered down the hole until the screen entered the open hole below the drill pipe. Dedicated polyethylene tubing, with the upper end closed to keep water in the borehole out, was lowered to the bottom of the pipe into the screen area. Once at the bottom the end of the polyethylene tubing was opened to allow water from the screened area to enter. The water was pulled up through the polyethylene tubing using a peristaltic pump to obtain a water sample.

Upon receiving the analytical results of the groundwater grab samples it was determined that four upper monitoring wells would be drilled and completed to a depth of approximately 65 ft bgs and four lower monitoring wells would be drilled and completed to a depth of approximately 100 ft bgs to assess the deeper portion of the deep water-bearing zone. Mud rotary drilling techniques using an eight inch diameter drill bit, was used to extend the borehole. Grab samples of the soil cuttings were generally taken at approximately 5-ft intervals for lithology description purposes. The monitoring wells were constructed similarly as described for the wells completed in the shallow water-bearing zone. The deeper wells however only had 9.5-ft screens. To center the casing and screen, centralizers were placed at the bottom of the well, above the screen interval and approximately every 30 ft thereafter.

Since mud rotary techniques were utilized to drill the boreholes for the monitoring wells constructed in the deep water-bearing zone, each well was surged with a surge block for 15 minutes following the placement of the filter pack. When required, more sand was added to the filter pack to maintain the sand at least 2 ft above the screen prior to the placement of the bentonite seal. For a more complete description of monitoring well construction see AECOM SOP 12 presented in the Draft Installation-Wide Work Plan (AECOM, July 2013)..

2.2.3.3 Monitoring Well Development

Monitoring wells completed in both the shallow and deep water-bearing zones were developed a minimum of 48 hours after the grout had been placed in the annular space between the well casing and borehole. Well development involved the use of a surge block and/or bailer to surge the well, and periodically pumping out the water. Chemical parameters including temperature, pH, specific conductivity, oxidation reduction potential, and turbidity were monitored during development activities. A minimum of three well volumes of water were removed during development of each well. The general procedures utilized in the development of these monitoring wells are presented in AECOM SOP 03 presented in the Draft Installation-Wide Work Plan (AECOM, July 2013)..

2.2.3.4 Groundwater Sampling Methodology

Prior to sampling groundwater between May 07 and June 04, 2013 each well was purged using low-flow sampling methods (<0.5 liters/minute) with a bladder pump using dedicated polyethylene tubing while measuring general water quality parameters (temperature, specific conductivity, pH, dissolved oxygen, oxidation reduction potential, and turbidity) with a flow-through cell. Upon stabilization of these parameter values, groundwater samples were collected and placed into laboratory-provided containers. The containerized samples were properly labeled, placed in ice-filled coolers, and shipped to the laboratory under chain-of-custody control for analytical testing at Microbac Laboratories. The groundwater samples were analyzed for VOCs, perchlorate, and metals. Monitoring well 125 was not sampled because it was dry.

2.2.4 Field Quality Control Samples

2.2.4.1 Assessment of Field Procedures

As part of the Quality Control/Quality Assurance (QA/QC) procedures utilized during the field investigation, field quality control samples were obtained during sampling activities. The quality control samples included equipment blanks, trip blanks, and temperature blanks.

To assess the adequacy of equipment decontamination procedures, equipment rinsate blanks were collected during sampling activities and submitted for laboratory analysis. One equipment blank was generated per medium per day. The equipment blank was prepared by pouring commercially-purchased distilled water over decontaminated field sampling equipment and collecting the rinsate in laboratory provided containers. The equipment blanks were analyzed for the same parameters as the media being sampled.

For each cooler containing samples for VOC analysis to be transported to the laboratory, a trip blank was included. The trip blank consisted of two laboratory-provided 40-ml VOA vials containing deionized water. This trip blank was used to determine whether the sample shipment may have been contaminated during transit from the field to the laboratory. The trip blanks were analyzed for VOCs.

A temperature blank was included in each cooler shipped to the laboratory. The temperature blank consists of a small laboratory-provided container containing water. It was used by the laboratory to confirm that the cooler arrived at the appropriate temperature.

2.2.4.2 Assessment of Field Variability

To evaluate or determine the source of measurement error arising from cumulative effects of both field and laboratory bias, duplicate samples were collected and submitted to the laboratory for analyses. One field duplicate was collected for approximately every 10 samples collected from each medium. The duplicate samples were analyzed for the same parameters as the media being sampled.

Laboratory control samples such as matrix spike (MS) and matrix spike duplicate (MSD) were collected during the sampling activities. These samples were evaluated by the laboratory to assess contamination introduced during sample preparation activities and/or from instrument contamination. One MS and MSD sample was collected approximately every 20 samples collected from each medium.

2.3 Comparison of Planned and Actual Work Completed

The methods described above to conduct the investigation at the site were completed to address the data gaps identified from the previous investigations and by the comments and evaluations by the regulatory agencies (TCEQ and USEPA). The following section summarizes these data gaps, the proposed work to address them, and the actual work conducted are described below. **Table 2-3** presents a detailed assessment of this information and highlights the deviation from the proposed scope of work.

2.3.1 Within the Containment Area

2.3.1.1 Data Gaps within the Containment Area

- Identify remaining sources of contamination, including possible vadose zone contamination and localized DNAPL to help explain the persistence and fluctuations in CoC concentrations. Better delineation of CoC distribution in both vadose and saturated zones.
- Assess potential vertical and lateral migration of CoCs out of the containment area underneath the ICTs.
- The effects of specific extraction and injection scenarios are difficult to predict prior to implementation, and to evaluate after implementation.

2.3.1.2 Proposed work to address data Gaps

Install nested (or co-located) wells at locations 18CPT01, 18CPT04, 18CPT06 through 18CPT08, 18CPT10, 18CPT12, and 18WW22. Conduct CPT and MIP investigations at up to 27 locations. Collect groundwater samples. Collect geotechnical soil data on select samples.

2.3.1.3 Actual Work Completed

Installed monitoring wells within the deep water-bearing zone (upper and lower portions) at locations 18CPT01, 18CPT08, 18CPT10, and 18CPT12 and within the upper portion of the deep water-bearing zone at 18CPT06 and 18CPT07. Monitoring wells were installed in the shallow and upper portion of the deep water-bearing zone at location 18CPT04. Monitoring well

18WW22 was installed in the shallow water-bearing zone to complement existing deep wells C04 and C04A.

2.3.2 Outside of the Containment Area to the Southwest

2.3.2.1 Data Gaps

- High concentrations of CoCs detected in MW-7, MW-8, and MW-9 [e.g., MC and TCE concentrations in MW-9 were 60,000 micrograms per liter (μg/L) and 53,000 ug/L in 2009/2010 and perchlorate concentration in MW-7 and MW-8 of 49,300 ug/L and 78,000 ug/L in March 2012] could indicate either a potential source outside the containment area or ineffective containment in the shallow zone. An explanation for high CoC concentrations in shallow groundwater is needed.
- The intermediate and deep zones are not monitored in this area.

2.3.2.2 Proposed work to address data Gaps

Conduct CPT/MIP at three 18CPT10 through 18CPT12. Install two Wilcox Formation wells at locations where contamination is identified in the Wilcox Formation.

2.3.2.3 Actual Work Completed

Completed CPT/MIP at four locations and installed upper and lower Wilcox Formation monitoring wells at each of locations 18CPT10 and 18CPT12. Collected soil samples at 18CPT9, 10, and 12.

2.3.3 Outside of the Containment Area to the Southeast

2.3.3.1 Data Gaps

Contaminant levels immediately outside the southeast boundary of the containment area are unknown and migration in that direction cannot currently be monitored.

2.3.3.2 Proposed work to address data Gaps

Conduct CPT/MIP investigation at 18CPT13, 18CPT14, and 18CPT22, install shallow monitoring wells at 18CPT14 and 18CPT22 locations

2.3.3.3 Actual Work Completed

Conducted CPT/MIP investigation at 18CPT13, 18CPT14, 18CPT22, and 18CPT24; installed wells in shallow water-bearing zone at locations 18CPT14, 18CPT22, and 18CPT24.

2.3.4 Outside of the Containment Area to the Northwest toward Harrison Bayou

2.3.4.1 Data Gaps

Perchlorate and TCE have been detected between the containment area and Harrison Bayou. The downgradient extent of that impact and the potential for continued migration in that direction need to be further assessed, including potential migration of perchlorate under the bayou.

2.3.4.2 Proposed work to address data Gaps

CPT investigation and shallow monitoring well on the west side of the bayou. CPT investigation and discrete groundwater sampling at 18CPT15 and 18CPT19 and installation of one shallow monitoring well at 18CPT19.

2.3.4.3 Actual Work Completed

No CPT conducted on the west side of HB at 18CPT16 due to access difficulties. In lieu of CPT, a Geoprobe™ was used to log the soil and a HSA was used to install a shallow well at this location (18CPTMW16). Conducted CPT and completed wells in shallow water-bearing zone at 18CPT15, 18CPT19, and 18CPT23. Obtained hydropunch sample from 18CPT15 (14-18', 25-29', and 38-42') and 18CPT19 (30-34').

2.3.5 Outside of the Containment Area to the Northeast

2.3.5.1 Data Gaps

The TCE and perchlorate plumes extending to the northeast from the containment area have not been fully delineated. The potential for continued migration in that direction also needs to be assessed.

2.3.5.2 Proposed work to address data Gaps

Conduct CPT investigation at 18CPT17 and 18CPT18, hydropunch groundwater sampling at 18CPT18, installation of well in shallow water bearing zone at 18WW22, co-located with C-04, and near 18CPT18.

2.3.5.3 Actual Work Completed

No CPT was completed at 18CPT17 and 18CPT18 due to access difficulties. However, soil descriptions were completed at both locations using a Geoprobe™. Obtained hydropunch samples at 18CPT17 (30-34') and 18CPT18 (31-25' and 45-49'). Installed a well in the shallow water-bearing zone at 18CPT18 (well 18CPTMW18) and 18WW22 (co-located with C-04 and C-04A).

2.3.6 Site-wide Sampling and Natural Attenuation Evaluations

2.3.6.1 Data Gaps

- No recent synoptic data set exists for all CoCs
- MNA has been proposed as a fundamental component of the remedy but there is not enough existing evidence of the natural attenuation of VOCs or perchlorate to support the efficacy of MNA throughout the site and along the outer edges of plumes.

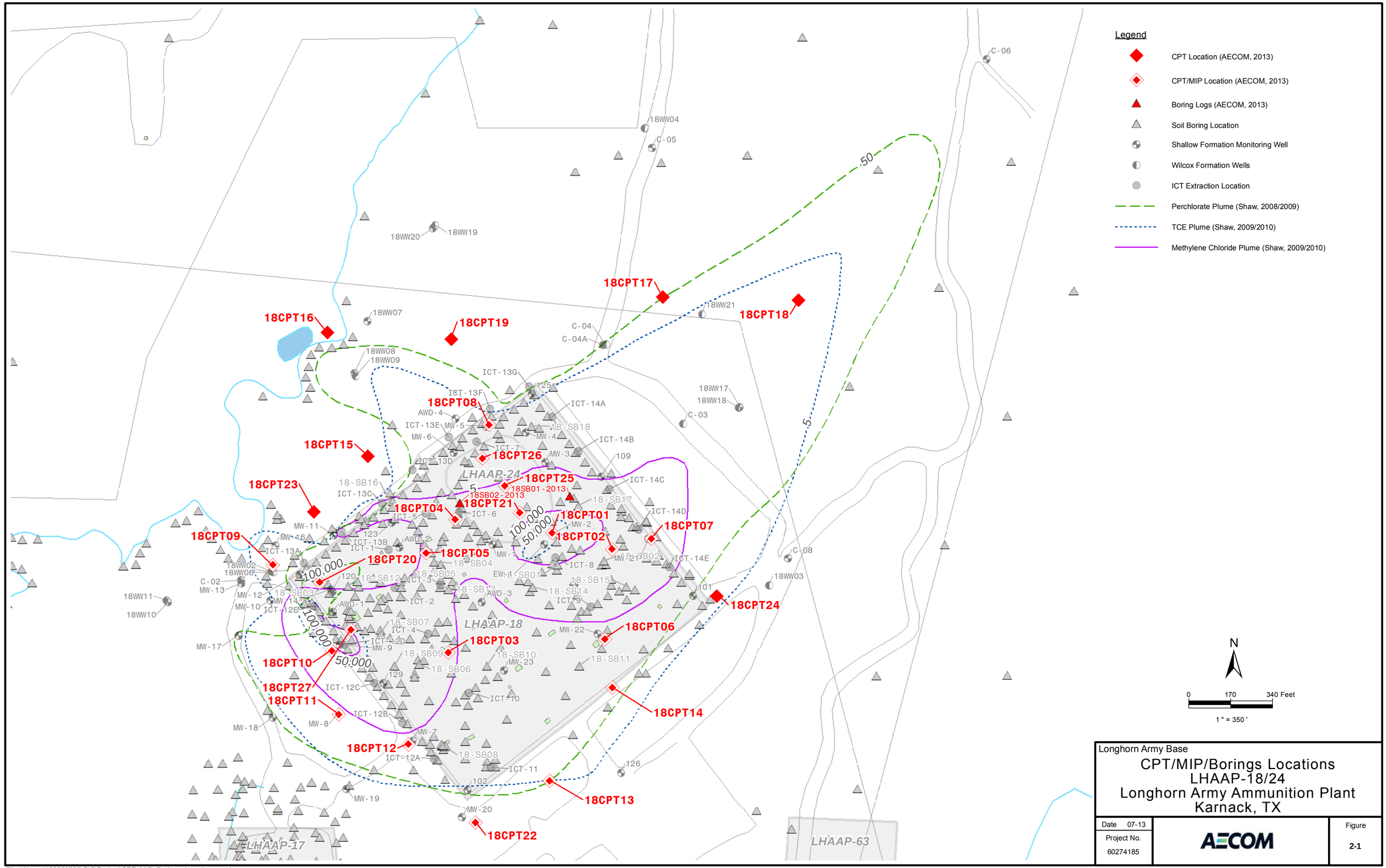
2.3.6.2 Proposed work to address data Gaps

Conduct a groundwater compliance sampling event of existing and new monitoring wells. Conduct sampling for MNA parameters from 18CPT15, and 18CPT16 and from existing wells

such as 18WW17 (northeast of the containment area), 18WW08 (northwest of the containment area), and MW-8.

2.3.6.3 Actual Work Completed

A comprehensive groundwater compliance sampling event was conducted in May and June 2013. MNA parameters were collected from locations 18WW08, MW-8, and 18CPTMW18 and analyzed for dehalococcoides, TCE and vinyl chloride expressive genes, CSIA, chloride, ethane, ethene, and methane gases, ferrous iron, and alkalinity.



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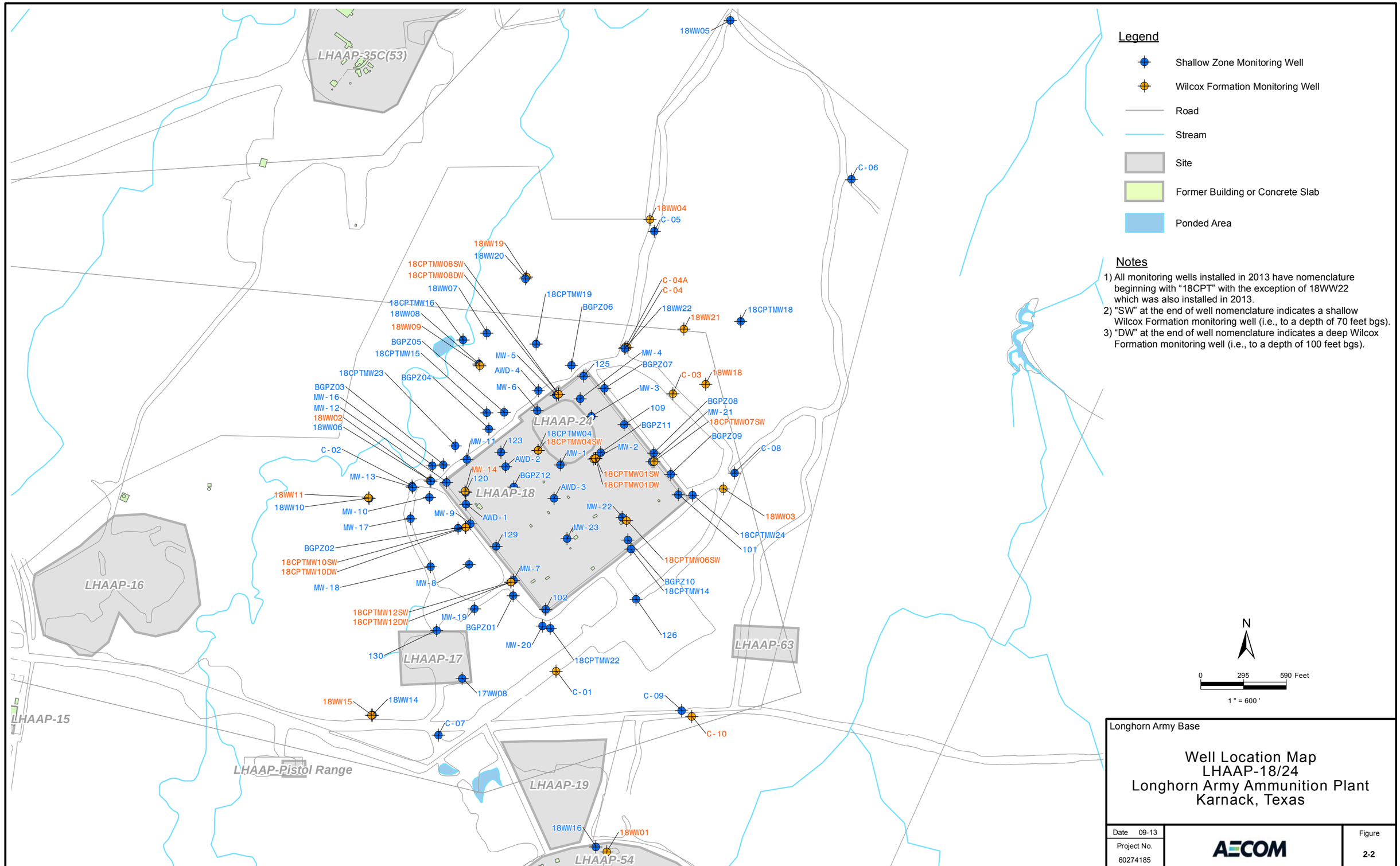

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Table 2-1: Summary of Data Gaps and Proposed Investigation Activities -- LHAAP-18/24

Area	Data Gap	Proposed Work	Work Completed
Within the containment area	1) Potential of vertical groundwater movement under natural conditions (infiltration of rainwater) and conditions induced by reinjection of treated water in ICT-6 and ICT-9 and infiltration of irrigation water, and lack of intermediate and deep wells within the containment area	Install nested (or collocated) wells at locations 18CPT01, 18CPT04, 18CPT06 through 18CPT08, 18CPT10, 18CPT12, and 18WW22	Wells installed in the deep water bearing zone (intermediate & deep) at 18CPT01, 18CPT08, 18CPT10, 18CPT12 and within the upper portion of the deep water bearing zone at 18CPT06 and 18CPT07. Well installed in shallow & deep (intermediate) water-bearing zones at 18CPT04. 18WW22 was installed in shallow water-bearing zone to complement existing deep wells C04 and C04A.
	2) MC, TCE, and perchlorate distribution in intermediate and deep zones (Wilcox Formation)	CPT investigation at 18CPT01 18CPT02, 18CPT03, 18CPT04, 18CPT05, 18CPT07, and 18CPT10	CPT conducted at 18CPT01, 18CPT02, 18CPT03, 18CPT04, 18CPT05, 18CPT07, and 18CPT10 as planned.
	3) Lack of perchlorate data to define its plume shape within the containment area (only one MW and the rest are all from ICTs).	Collection of perchlorate samples from 22 existing wells, AWD-1 through AWD-4, MW-1, MW-4, MW-5, MW-6, MW-9, MW-11, MW-12, MW-14, MW-21, MW-22, MW-23, 101, 102, 120, 123, 124, 125, and 129, soil samples from 18CPT01, 18CPT02, 18CPT05, 18CPT06, and 18CPT08	Collected groundwater samples from all listed wells **with the exception of 125 which was dry**. Soil samples were collected from 18CPT01 (7-8', 15-16', 31-32', and 40-40.5'); 18CPT02 (8-9', 21-22', 29-30', 41-42'); 18CPT05 (15-16', 25-26', 31-32', 39-40'); 18CPT06 (9-10', 19-20', 38-39', and 43-44'); and 18CPT 08 (6-7' and 37.5-38').
	4) Possible contamination in the vadose zone as VOC and perchlorate concentrations seem to increase after rain fall events.	MIP investigation at 18CPT01 through 18CPT09, 18CPT20, and 18CPT21, and soil samples from 18CPT01, 18CPT02, 18CPT05, 18CPT06, 18CPT08, 18CPT09, and 18CPT20	Conducted MIP at 18CPT01 through 18CPT09, 18CPT20, and 18CPT21. Analyzed soil samples from 18CPT01, 18CPT02, 18CPT05, 18CPT06, 18CPT08, 18CPT09 (6-7', 12-13', 16-17', and 21-22'), and 18CPT20 (7-8', 16-17', and 32-33'). **Also completed 18CPT25 (15-16', 21-22', and 31-32'), 18CPT 26 (9-10', and 22-23'), and 18CPT27 (7-8', 17-18', 26-27', and 33-34').**

Area	Data Gap	Proposed Work	Work Completed
	5) Possible NAPL source within the containment area	MIP investigation at 18CPT01 through 18CPT09, 18CPT20, and 18CPT21, and soil samples from 18CPT01, 18CPT02, 18CPT05, 18CPT06, 18CPT08, and 18CPT20	Conducted MIP at 18CPT01 through 18CPT09, 18CPT20, and 18CPT21. Analyzed soil samples from 18CPT01, 18CPT02, 18CPT05, 18CPT06, 18CPT08, **18CPT09**, and 18CPT20.
	6) Potential contaminant bypass of ICT and liner associated with MC plume	MIP investigation at 18CPT09, 18CPT10, 18CPT12, and 18CPT07, and installation of nested wells at 18CPT10, 18CPT07, and 18CPT12.	Conducted MIP at 18CPT09, 18CPT10, 18CPT 12, and 18CPT07, and installed wells in the deep water-bearing zone (intermediate & deep) at 18CPT10, and 18CPT12 and intermediate well at 18CPT07.
	7) Lack of geotechnical data	Geotechnical data may be collected at select locations.	Geotechnical data collected at 18CPT01 (16-17', 37-37.5', and 40.5-41'), 18CPT08 (12.5-13', 22-23', and 32-32.5'), 18CPT10 (16-17' and 18-19'), and 18CPT23 (25-26').
Outside of containment area to the southwest (MW-7 through MW-9)	8) Source of Contamination outside of containment area, and vadose zone contamination in this area	CPT/MIP investigation at 18CPT09, 18CPT10 through 18CPT12, and soil sampling at 18CPT09, 18CPT10 and 18CPT12, and installation of nested wells tentatively at 18CPT10 and 18CPT12	Conducted CPT/MIP at 18CPT09, 18CPT10 through 18CPT12. Conducted soil sampling at 18CPT09, 18CPT10 (17-18', 19-20', 27-27.5, and 28-29'), and 18CPT12 (13-14', 18-19', 22-23', and 28-29'). Installed wells in deep water-bearing zone (intermediate & deep) at 18CPT10 (adjacent to MW-9) and 18CPT12 (adjacent to MW-7)
Outside of containment area to the northwest toward the Bayou	9) Possible extension of perchlorate plume under the bayou	CPT investigation at 18CPT16 on the west side of the bayou, and installation of a Shallow Formation well at this location	**No CPT conducted due to access difficulty**. Completed soil description and installed monitoring well in the shallow water-bearing zone at location 18CPT16 using a direct push method and hollow stem auger.
	10) Perchlorate distribution outside of containment area toward the Bayou	CPT investigation and hydropunch groundwater samples from 18CPT15 and 18CPT19 and installation of a Shallow Formation well at 18CPT19	Conducted CPT and completed wells in shallow water-bearing zone at 18CPT15, 18CPT19, **and 18CPT23**. Obtained hydropunch sample from 18CPT 15 (14-18', 25-29', and 38-42') and 18CPT19 (30-34'). Installed a shallow monitoring well at 18CPT19.

Area	Data Gap	Proposed Work	Work Completed
Outside of containment area to the northeast	11) CoC plume extent along the dominant groundwater flow direction to the northeast	CPT investigation at 18CPT17 and 18CPT18, hydropunch groundwater samples at 18CPT18, installation of Shallow Formation well at 18WW22 to collocate with C-04, and a Shallow Formation well near 18CPT18	**No CPT completed at 18CPT17 and 18CPT18 due to access difficulties.** Completed soil descriptions at both locations. Obtained hydropunch samples at 18CPT17 (30-34') and 18CPT18 (31-25' and 45-49'). Installed well in shallow water-bearing zone at 18CPT18 and 18WW22
In General	12) Lack of evidence of MNA	Sampling for MNA parameters from 18CPT15, and 18CPT16 and from existing wells such as 18WW17 (northeast of the containment area), 18WW08 (northwest of the containment area), and MW-8 (southwest of the containment area)	MNA parameters collected at MW-8, 18WW08, and **18CPTMW18 (instead of 18WW17 which has been converted to an extraction well)**.

Notes:

[1] MNA parameters include DO, ORP, pH, TOC, nitrate, sulfate, ferrous iron, total phosphorous, manganese, methane. CSIA samples are also planned to be collected.

Bolded text indicates deviation from PSI Work Plan (AECOM, March 2013).

Table 2-2: New Monitoring Well Specifications and CPT/DPT Location Data - LHAAP-18/24

Monitoring Well	Boring Location ID	Well Location	Well Diameter (Inches)	Borehole Depth	Casing Depth	Screened Interval	Surface Casing	Well Northing	Well Easting	Top of Casing Elevation (feet amsl)
				(In Feet from Ground Surface)						
18CPTMW01DW	18CPT01	Inside containment	4	102.0	98.0	88.0 - 97.5	41.0	6954009.2	3316919.2	197.92
18CPTMW08DW	18CPT08	Inside containment	4	99.8	99.8	89.8 - 99.3	38.0	6954449.4	3316647.6	196.59
18CPTMW04	18CPT04	Inside containment	4	34.0	34.0	14.0 - 33.5	None	6954068.4	3316510.5	196.6
18CPTMW04SW	18CPT04	Inside containment	4	65.0	63.0	53.0 - 62.5	39.0	6954060.9	3316516.8	196.42
18CPTMW06SW	18CPT06	Inside containment	4	65.0	64.0	54.0 - 63.5	42.0	6953600.5	3317105.6	198.12
18CPTMW01SW	18CPT01	Inside containment	4	63.0	63.0	53.0 - 62.5	41.0	6954015.2	3316915.6	198.2
18CPTMW08SW	18CPT08	Inside containment	4	53.1	53.1	43.1 - 52.6	37.5	6954454.6	3316642.5	196.38
18CPTMW07SW	18CPT07	NE boundary	4	65.0	64.4	54.4 - 63.9	42.0	6954007.2	3317312.6	197.32
18CPTMW18	18CPT18	Outside NE	4	50.0	34.7	24.7 - 34.2	None	6954928.1	3317820.6	194.53
18WW22	No boring	Outside NE	4	42.5	42.0	27.0 - 41.5	None	6954767.4	3317129.6	195.37
18CPTMW19	18CPT19	Outside NW	4	35.0	33.5	23.5 - 33.0	None	6954785.8	3316544.9	193.59
18CPTMW23	18CPT23	Outside NW	4	31.0	31.0	21.0 - 30.5	None	6954108.9	3315907.6	177.47
18CPTMW15	18CPT15	Outside NW	4	36.0	35.8	15.8 - 35.3	None	6954321.8	3316123.9	179.79
18CPTMW16	18CPT16	Outside NW	4	44.0	35.0	15.0 - 34.5	None	6954934.5	3315993.6	175.37
18CPTMW24	18CPT4	Outside SE	4	33.0	32.0	22.0 - 31.5	None	6953749.0	3317538.9	194.89
18CPTMW22	18CPT22	Outside SE	4	29.0	29.0	9.0 - 28.5	None	6952864.6	3316542.7	187.62
18CPTMW14	18CPT14	SE boundary	4	34.0	33.9	23.9 - 33.4	None	6953382.6	3317154.0	196.69
18CPTMW12DW	18CPT12	SW boundary	4	100.0	100.0	90.0 - 99.5	28.0	6953177.7	3316341.4	190.25
18CPTMW10DW	18CPT10	SW boundary	4	101.0	98.8	88.8 - 98.3	28.0	6953519.3	3316020.6	187.38
18CPTMW10SW	18CPT10	SW boundary	4	53.0	53.0	43.0 - 52.5	28.0	6953521.8	3316015.5	186.98
18CPTMW12SW	18CPT12	SW boundary	4	52.5	52.5	42.5 - 52.0	28.0	6953183.4	3316337.8	190.9

CPT/DPT	Boring Location	Northing	Easting	Ground Elevation (feet amsl)
18CPT01	Inside containment	6954012.039	3316919.02	197.92
18CPT02	Inside containment	6953904.445	3317130.74	194.69
18CPT03	Inside containment	6953526.06	3316481.88	196
18CPT04	Inside containment	6954063.014	3316513.88	194.44
18CPT05	Inside containment	6953907.557	3316434.71	189.91
18CPT06	Inside containment	6953605.926	3317106.04	194.87
18CPT07	Inside containment	6953999.283	3317317.97	197.92
18CPT08	Inside containment	6954448.744	3316642.43	193.53
18CPT09	Outside NW	6953875.719	3315781.17	176.35
18CPT10	SW boundary	6953514.197	3316011.34	183.69
18CPT11	Outside SW	6953274.412	3316046	184.85
18CPT12	SW boundary	6953185.157	3316345.27	187.74
18CPT13	Outside SE	6952998.025	3316891.5	197.46
18CPT14	SE boundary	6953384.122	3317156.33	194.08
18CPT15	Outside NW	6954326.645	3316128.85	177.22
18CPT16	Outside NW	6954932.507	3315993.1	172.65
18CPT17	Outside NE	6954926.26	3317409.87	191.66
18CPT18	Outside NE	6954924.848	3317820.46	191.89
18CPT19	Outside NW	6954783.365	3316538.15	190.56
18CPT20	Inside containment	6953813.26	3315989.17	181.37
18CPT21	Inside containment	6954040.52	3316645.86	201.98
18CPT22	Outside South	6952867.493	3316542.43	185.03
18CPT23	Outside NW	6954110.919	3315911.76	174.5
18CPT24	Outside SE	6953746.15	3317535.83	192.36
18CPT25	Inside containment	6954018.969	3316711.53	201.72
18CPT26	Inside containment	6954350.06	3316731.52	200.22
18CPT27	Inside containment	6953685.232	3316083.01	179.02
18SB01-2013	Inside containment	6954248.934	3317041.66	195.64
18SB02-2013	Inside containment	6954132.811	3316535.75	196.06

amsl - above mean sea level

Table 2-3: Summary of Completed Sampling and Analysis Scope by Location - LHAAP-18/24

Boring ID	Depth	Soil Samples for VOCs and perchlorate[1] (8260B and 6850)	Hydropunch Groundwater Samples for VOCs and perchlorate[2,3] (8260B and 6850)	Comments	Scope Completed
18CPT01	To clay layer at base of shallow zone, which occurs at approximately 40 ft bgs	Up to 5	1 (Upper Wilcox)	Install either an Upper Wilcox Formation or a Lower Wilcox Formation well up to a depth of 100 ft bgs to monitor vertical groundwater movement and determine whether contaminants migrated into deeper water-bearing zones. The decision will be based on field screening results of the soil cuttings.	CPT/MIP completed to 43 ft bgs. 4 soil samples and one upper Wilcox water sample collected. 2 Wilcox Formation wells were installed in the Upper (62.5 ft bgs) and Lower (97.5 ft bgs) portions of the aquifer.
18CPT02	Penetrate as deep as 50 ft, and when MIP signal reaches detection limit or clay layer at base of shallow zone is encountered, whichever occurs first	Up to 5 (contingent)	--	Contingent soil samples on CPT/MIP results.	CPT/MIP completed to 45 ft bgs. 4 soil samples collected.
18CPT03	Down to 50 ft, and when MIP signal reaches detection limit or clay layer at base of shallow zone is encountered, whichever occurs first	Up to 5	--	--	CPT/MIP completed to 43 ft bgs. 4 soil samples collected.
18CPT04	Down to 50 ft, and when MIP signal reaches detection limit or clay layer at base of shallow zone is encountered, whichever occurs first	--	--	A well pair screened in the shallow zone and Wilcox Formation will be installed with screen intervals to be determined based on CPT/MIP results for the shallow zone.	CPT/MIP completed to 40 ft bgs. 1 shallow zone well to 33.5 ft bgs and 1 Upper Wilcox well installed to 62.5 ft bgs.
18CPT05	Down to 50 ft, and when MIP signal reaches detection limit or clay layer at base of shallow zone is encountered, whichever occurs first	Up to 5 (contingent)	--	Contingent soil samples on CPT/MIP results.	CPT/MIP completed to 40 ft bgs. 4 soil samples collected.
18CPT06	Down to 50 ft, and when MIP signal reaches detection limit or clay layer at base of shallow zone is encountered, whichever occurs first	Up to 5	--	Install an Upper Wilcox well at this location.	CPT/MIP completed to 49 ft bgs. 4 soil samples collected. Installed an upper Wilcox well to 63.5 ft bgs.
18CPT07	Down to 50 ft, and when MIP signal reaches detection limit or clay layer at base of shallow zone is encountered, whichever occurs first	Up to 5	--	Install an Upper Wilcox well to MW-21.	CPT/MIP completed to 43 ft bgs. 4 soil samples collected. Installed an upper Wilcox well to 63.9 ft bgs.
18CPT08	To clay layer at base of shallow zone, which occurs at approximately 45 ft bgs	Up to 5 (contingent)	1 (Upper Wilcox)	Install either an Upper Wilcox or a Lower Wilcox Formation well up to a depth of 100 ft bgs to monitor vertical groundwater movement and determine whether contaminants migrated into deeper water-bearing zones. The decision will be based on field screening results of the soil cuttings.	CPT/MIP completed to 45 ft bgs. 2 soil samples and one upper Wilcox water sample collected. 2 Wilcox Formation wells were installed in the Upper (52.6 ft bgs) and Lower (99.3 ft bgs) portions of the aquifer.
18CPT09	Penetrate as deep as 50 ft, and when MIP signal reaches detection limit or clay layer at base of shallow zone is encountered, whichever occurs first	Up to 5	--	--	CPT/MIP completed to 47.5 ft bgs. 4 soil samples collected.

Table 2-3: Summary of Completed Sampling and Analysis Scope by Location - LHAAP-18/24

Boring ID	Depth	Soil Samples for VOCs and perchlorate[1] (8260B and 6850)	Hydropunch Groundwater Samples for VOCs and perchlorate[2,3] (8260B and 6850)	Comments	Scope Completed
18CPT10	To clay layer at base of shallow zone, which occurs at approximately 30 ft bgs	Up to 5	1 (Upper Wilcox)	Depending on the results of CPT/MIP, two of these three locations will be converted to an Upper Wilcox Formation or a Lower Wilcox Formation wells up to a depth of 100 ft bgs. The decision will be based on field screening results of the soil cuttings. The tentative two well locations are to the Southwest of MW-9 and downgradient of MW-7.	CPT/MIP completed to 29 ft bgs. 4 soil samples and one upper Wilcox water sample collected. 2 Wilcox Formation wells were installed in the Upper (52.5 ft bgs) and Lower (98.3 ft bgs) portions of the aquifer.
18CPT11	Down to 50 ft, and when MIP signal reaches detection limit or clay layer at base of shallow zone is encountered, whichever occurs first	--	--		CPT/MIP completed to 39 ft bgs.
18CPT12	To clay layer at base of shallow zone, which occurs at approximately 38 ft bgs	Up to 5	1 (Upper Wilcox)		CPT/MIP completed to 30 ft bgs. 4 soil samples and one upper Wilcox water sample collected. 2 Wilcox Formation wells were installed in the Upper (52 ft bgs) and Lower (99.5 ft bgs) portions of the aquifer.
18CPT13	Down to 50 ft, and when MIP signal reaches detection limit or clay layer at base of shallow zone is encountered, whichever occurs first	Up to 5 (contingent)	3	Soil and groundwater samples will be collected to capture perchlorate.	CPT/MIP completed to 49 ft bgs. 4 soil samples collected. 1 groundwater sample collected.
18CPT14	Down to 50 ft, and when MIP signal reaches detection limit or clay layer at base of shallow zone is encountered, whichever occurs first	--	--	Install a shallow zone well with screen intervals to be determined based on CPT/MIP results.	CPT/MIP completed to 43 ft bgs. A shallow zone well installed to 33.4 ft bgs.
18CPT15	To clay layer at base of shallow zone, which occurs at approximately 30 ft bgs	--	3	A shallow zone well will be installed at this location based on results of hydropunch groundwater sample results.	CPT completed to 50 ft bgs. 3 groundwater samples collected. A shallow zone well installed to 35.3 ft bgs.
18CPT16	Down to 60 ft or to clay layer at base of shallow zone	--	3	A shallow zone well will be installed at this location with screen intervals to be determined based on hydropunch groundwater samples.	No CPT completed due to access difficulties. A borehole driven to 44 ft bgs. A shallow zone well installed to 34.5 ft bgs. No groundwater samples collected.
18CPT17	Down to clay layer at base of shallow zone, which occurs at approximately 60 ft bgs	--	3	--	No CPT completed due to access difficulties. A borehole driven to 50 ft bgs. 1 groundwater sample collected.
18CPT18	Down to clay layer at base of shallow zone, which occurs at approximately 60 ft bgs	--	3	A shallow zone well will be installed at this location with screen intervals to be determined based on hydropunch groundwater samples.	No CPT completed due to access difficulties. A borehole driven to 50 ft bgs. 3 groundwater samples collected. A shallow zone well installed to 34.2 ft bgs.
18CPT19	Down to 60 ft or to clay layer at base of shallow zone	--	3	A shallow zone well will be installed at this location with screen intervals to be determined based on hydropunch groundwater samples.	CPT completed to 39.5 ft bgs. 1 groundwater sample collected. A shallow zone well installed to 33 ft bgs.
18CPT20	Down to 50 ft, and when MIP signal reaches detection limit or clay layer at base of shallow zone is encountered, whichever occurs first	Up to 5 (contingent)	--	Contingent soil samples on CPT/MIP results.	CPT/MIP completed to 49 ft bgs. 3 soil samples collected.
18CPT21	Down to 60 ft, and when MIP signal reaches detection limit or clay layer at base of shallow zone is encountered, whichever occurs first	Up to 5 (contingent)	3	Contingent soil samples on CPT/MIP results.	CPT/MIP completed to 51 ft bgs. 3 soil samples collected. 1 groundwater sample collected.

Table 2-3: Summary of Completed Sampling and Analysis Scope by Location - LHAAP-18/24

Boring ID	Depth	Soil Samples for VOCs and perchlorate[1] (8260B and 6850)	Hydropunch Groundwater Samples for VOCs and perchlorate[2,3] (8260B and 6850)	Comments	Scope Completed
18CPT22	Down to 60 ft or to clay layer at base of shallow zone	--	--	A shallow zone well will be installed at this location.	CPT/MIP completed to 53 ft bgs. A shallow zone well installed to 28.5 ft bgs.
18CPT23	Down to 60 ft or to clay layer at base of shallow zone	--	--	A shallow zone well will be installed at this location.	CPT completed to 50.5 ft bgs. A shallow zone well installed to 30.5 ft bgs.
18CPT24	Down to 60 ft or to clay layer at base of shallow zone	--	--	A shallow zone well will be installed at this location.	CPT completed to 45 ft bgs. A shallow zone well installed to 31.5 ft bgs.
18CPT25	Down to 60 ft, and when MIP signal reaches detection limit or clay layer at base of shallow zone is encountered, whichever occurs first	Up to 5 (contingent)	3	Contingent soil samples on CPT/MIP results.	CPT/MIP completed to 49 ft bgs. 3 soil samples collected. 1 groundwater sample collected.
18CPT26	Down to 60 ft, and when MIP signal reaches detection limit or clay layer at base of shallow zone is encountered, whichever occurs first	Up to 5 (contingent)	3	Contingent soil samples on CPT/MIP results.	CPT/MIP completed to 45 ft bgs. 2 soil samples collected. No groundwater samples collected.
18CPT27	Down to 60 ft, and when MIP signal reaches detection limit or clay layer at base of shallow zone is encountered, whichever occurs first	Up to 5 (contingent)	--	Contingent soil samples on CPT/MIP results.	CPT/MIP completed to 44 ft bgs. 4 soil samples collected.
18SB012013	Down to 60 ft or to clay layer at base of shallow zone	Up to 5	--	--	Boring drilled using a GeoprobeTM to a depth of 45 ft bgs. No sampled collected.
18SB032013	Not proposed	Not proposed	Not proposed	Not proposed	Boring drilled using a GeoprobeTM to a depth of 50 ft bgs.
18WW22	Down to clay layer at base of shallow zone, which occurs at 55 ft bgs	--	--	A shallow zone well will be installed at this location with screen interval determined by existing lithologic log for C04.	A shallow well installed to 41.5 ft bgs.
Proposed		Up to 80	27	--	--

NOTES/EXPLANATIONS/ABBREVIATIONS:

[1] Soil samples will be collected during well installation, with sampling depth to be guided by high MIP readings.

[2] Up to three discrete groundwater samples will be collected from each location at various saturated zones.

[3] Groundwater samples will be collected by hydropunch following DPT rig. Samples from existing and new wells will be conducted under a comprehensive groundwater sampling program.

bgs - below ground surface

CPT - cone-penetrometer testing

ft - feet

MIP - membrane interface probe

VOC - volatile organic compound

3 INVESTIGATION FINDINGS

The sections that follow present the data collected throughout this investigation in the context of closing any identified data gaps. The importance of this additional information it to improve the overall site conceptual model associated with hydrogeology, contaminant sources, and contaminant distribution, and to allow better understanding of the potential vertical and horizontal migration of CoCs.

3.1 Hydrogeology

The subsurface investigation was conducted to confirm and supplement the hydrogeology at the site as presented in the PSI WP (AECOM, February 2013) and summarized in **Section 1.2.2**. Data was collected using CPT/MIP, Geoprobe™, HSA, and mud rotary investigations. Discrete soil and groundwater samples were collected and tested for contaminant concentrations. Monitoring wells were installed in the shallow and Wilcox Formation and groundwater concentrations data were collected. Finally, geotechnical soil data was collected from the shallow zone soils.

3.1.1 CPT/MIP/DPT

CPT was driven at 24 locations (18CPT01 through 18CPT15 and 18CPT19 through 18CPT27) to collect lithology data from information provided by the CPT tip stress (cone resistance) in tons per square foot (TSF), sleeve friction in TSF, pour water pressure in TSF, and pressure ratio of sleeve friction to tip resistance in percentage. CPT was driven with the goal of understanding the complex lithology of the shallow zone, to identify the presence and depth, where present, of the clay layer separating the shallow zone from the Wilcox Formation (Wilcox clay), and determine locations where the Wilcox clay is absent. CPT results also provided insight as to where to install the screen intervals for the shallow monitoring wells. The depth of CPT penetration was estimated from the updated CSM using existing site lithology data; however, the actual depth was determined in the field (values presented in **Table 2-3**). The goal for the vertical extent of CPT was to reach the Wilcox clay but not penetrate through it. Typically, the CPT penetration identified the Wilcox clay, where present. CPT was not completed at locations 18CPT16, 18CPT17, and 18CPT18 due to access difficulties. Instead of CPT, a Geopobe™ or DPT was used to log the boreholes and to collect required data.

The CPT/MIP logs are presented in **Appendix A**. The data as interpreted by the operator of the CPT (Fugro consultants) provided 12 soil classifications from fine-grained to coarse grained soils. The data from CPT classification were compared to soil data logged by a field geologist from specific boreholes drilled adjacent to CPT locations (e.g., to collect discrete soil samples or to install monitoring well). The boring logs are presented in **Appendix A**. Section 3.1.2.2 provides a comparative analysis between CPT logs and geologist descriptions.

MIP data was collected from 20 locations (18CPT01 through 18CPT14, 18CPT20 through 18CPT22, and 18CPT25 through 18CPT27) to collect data that present the relative concentrations of VOCs in the subsurface soil. The tool heats up the soil using a heating element in the sleeve to enhance volatilization of VOCs. The volatilized VOCs are then captured with a carrier gas that transports the VOCs to the ground surface where they are analyzed by several detectors including a FID, PID, and DELCD. PID detectors are best used for detecting aromatic compounds, such as BTEX (benzene, toluene, ethylbenzene, and xylene isomers). FID detectors

are used to detect petroleum hydrocarbons (straight and branched chain alkanes). DELCD detectors are used to identify chlorinated hydrocarbons (e.g., perchloroethylene, TCE, dichloroethylene, carbon tetrachloride). The electric signals from these detectors measured in microvolts (uV) provides an indication of the relative level/concentration of VOCs in the soil. The detector and carrier tubing can become saturated when driving the probe through a NAPL zone. This phenomenon requires that the tubing be cleared before containing to collect data, otherwise carryover of vapors will mask additional probe readings that could create false positives. For LHAAP-18/24 saturation of the tubing was observed in a few locations and depths as shown in the MIP results presented in **Appendix A** and discussed below. Carry over due to the presence of high concentrations can be observed if the signal stays flat for some distance or vanishes slowly in a nearly straight line. Signal carry over and decay was observed primarily for DELCD at the following locations: 18CPT03 below 38 ft bgs (within the clay zone), 18CPT04 below 25 ft bgs (within the fine-grained soil); 18CPT06 below 42 ft bgs (within clay zone), 18CPT08 for the entire boring length (likely flushing of the tubing occurred throughout the CPT interval, which is an indication that the soil at this location is unimpacted); 18CPT11 below 22 ft bgs (within clay zone); 18CPT20 below 36 ft bgs (within a clay stringer in the Wilcox Formation and below); 18CPT21 between 32 and 46 ft bgs (within shallow sand and Wilcox Clay); 18CPT25 below 32 ft bgs (within shallow sand and Wilcox Clay); and 18CPT27 below 38 ft bgs (below the clay layer). These decaying signals were interpreted as occurring in unimpacted intervals (e.g., absence of signal spikes indicates absence of a localized source). These conditions for the most part were confirmed by discrete soil data.

The relative concentrations of VOCs present at various depths and CPT locations can be estimated by determining the ratios of detector signals reported at these depths and locations. This can be performed for each detector. However, the best value for MIP is to determine the presence of source areas in the unsaturated zone and relative distribution of VOCs in the subsurface. MIP output was also important in the field for determining where to collect discrete soil and groundwater samples.

Although the MIP signal provides only an approximation of concentration of VOCs at a certain depth, a correlation between MIP signals (DELCD only) and VOC concentrations determined from discrete soil samples was generated. This information is important to clearly link the MIP signal strength with VOC concentration (i.e., higher MIP signal is observed for higher VOC concentrations). This information is discussed in **Section 3.2.1**.

Where CPT was not used due to access difficulty at locations 18CPT16 through 18CPT18, a Geoprobe™ was used to describe the soil and collect soil samples.

3.1.2 Hydrogeologic CSM

3.1.2.1 Site Geology

Geologic maps compiled by Virgil Barnes of the (Texas Bureau of Economic Geology, 1992) show that the footprint of the LHAAP-18/24 site falls completely within the area mapped as undifferentiated Quaternary alluvium. Site stratigraphy consists of a relatively thin (10 to ~45 ft) cover of unconsolidated Quaternary alluvium atop semi-consolidated sandstones (sands) and shales (clays and silts) of the Eocene Wilcox formation. The Wilcox formation is known to be at least 34 Million Years old and the Quaternary Alluvium is locally younger than 15,000 years old (USACE, 1993). The contact between these two units represents a significant hiatus or erosional

unconformity in the local geologic record. The significance of this is that because of its erosional nature, the contact between Wilcox Formation and Quaternary alluvium is likely irregular in elevation. Additionally, the lithologies in contact with one another at the interface will vary, making this a geologically complex stratigraphic horizon.

The site is located on the northwest edge of the Sabine uplift, a roughly circular dome-like geologic structure. Due to this feature, the Wilcox formation locally dips gently toward the northwest and not to the southeast as it does in much of the Texas coastal plain.

There are two basic generations of alluvium that comprise the shallow alluvial cover at the site. The majority of the Quaternary alluvium originated from the Big Cypress Bayou, which feeds Caddo Lake directly to the north of the site. Alluvium associated with the Big Cypress Bayou ranges in thickness from 20 to 50 ft (USACE, 1993). In general, Big Cypress alluvium thins toward the west, away from Caddo Lake and the modern alluvial valley. A smaller portion of the alluvium at the site owes its origins to the Harrison Bayou which also feeds into Caddo Lake. The Harrison Bayou locally incises into the older portions of the undifferentiated Quaternary alluvium and likely into any exposed or thinly covered Wilcox sands upstream. The Harrison Bayou occupies a small valley on the immediate northwestern border of the site.

In general, alluvium deposited by fluvial systems such as the Big Cypress and Harrison Bayous is characterized by laterally heterogeneous deposits of clays, silts, and sands. The following points apply:

- Characterized by isolated sandy zones of higher permeability (typically preserved relict channels, point bars, or levees) are surrounded by the silts and clays of the relict flood plain.
- Identifiable in borehole logs using grain size and lithologic descriptors. Because the preserved channel or point bar sediments reflect the history of waning energy that occurs when a portion of a stream or river is abandoned, they can be identified by fining upward grain size pattern (or sequences) of sediments ranging in size from gravel at the base to clays and silts at the top.
- The fluvial sediments of the site alluvium are described in the boring logs as ranging in size from sand, silty sands, silts, and clays with colors that are generally orange, light brown/grey, yellow and light brown.

The larger scale and larger watershed associated with the Big Cypress Bayou give its alluvium a wider range of grain sizes and lithologic descriptions than the Harrison Bayou sediments. Harrison Bayou alluvium tends to be silty fine sands, similar in appearance to the underlying Wilcox, because the Wilcox is a local source of sediment.

The underlying Wilcox Formation consists of semi-consolidated sands and clays deposited in a larger scale fluvial-deltaic setting. The following descriptive points apply:

- The sands are broadly lenticular in morphology and the sands are more massive and homogeneous than the overlying alluvium.
- The sands tend to be grey, greenish grey fine sands, though they weather to a variety of colors including red, yellow and brown (Texas Bureau of Economic Geology, 1975).
- Lignite(black carbonaceous seams) are common throughout.

- Locally the top of the Wilcox formation was identified as a dark grey or blue grey clay (USACE, 1993).

The upper Wilcox sands were deposited in a transgressive setting (Xue, 1997). In the case of a "fluvial-deltaic" depositional environment, this means that rising local sea level would have altered delta position over time (locally deepening water) and/or would have raised base level (the elevation to a river system flows). The result is that in the case of fluvial or distributary channels, back filling and infilling with sediment (a process called aggradation) would have occurred. In the case of broader deltaic sand bodies, an upward trend towards finer sediment grain size would occur.

3.1.2.2 Stratigraphic Analysis

3.1.2.2.1 Sequence Stratigraphic Approach

Site boring logs (existing and newly collected data) were revisited to construct "Graphic Grain Size Logs" for use in constructing ESS cross sections (**Appendix C**). Sequence stratigraphy is a methodology that emphasizes the correlation of sediments from depositional systems that exist at the same point in geologic time. Hence, the method relies on the identification of similar vertical grain size trends associated with the energy of a depositional system, and depositional analogues (observed distributions of grain size from modern depositional systems). This differs from a lithostratigraphic interpretation which simply connects similar sediments with one another, sometimes regardless of the geologic plausibility. When used iteratively with hydrogeologic and chemistry data, ESS yields a best-fit integration of available datasets to define the hydrostratigraphic framework underlying the site.

In order to develop graphic grain size logs lithologic descriptions are converted to a numeric grain size value based on the grain size description. For example, clay = 1, silt=2, etc. The values are then plotted in a depth series for each borehole location. Larger grain size plots farther from the axis. In this way the overall vertical trends in grain size that are diagnostic of different depositional environments can be identified and used in conjunction with any other available lithologic descriptors (notes on organic debris, fossil material, bedding, color, etc.) to facilitate a geologically accurate correlation. The cross sections presented in **Appendix C** have a clear key of represented grain sizes.

3.1.2.2.2 CPT

CPT logs were also used as lithology data for the stratigraphic analysis to correlate with borehole log data. The CPT tool was specifically chosen for the PSI data collection because it is a very reliable representation of lithology data for the types of sediments encountered beneath the site (interlayered sands, silts, and clays). The CPT tip resistance log is continuous and representative of vertical grain size distribution. In general CPT data consistently shows a representative depiction of the lithology that is described in nearby boring logs. As with any variation in data collection, there is not always a perfect foot-by-foot match between the CPT log and a geologist borehole log description. But, as noted below for this site, it is a representative depiction of the lithology, particularly the relative vertical grain size patterns (fining upward vs. coarsening upward).

Comparison of the CPT logs to geologist's logs and grain size analysis was conducted for locations throughout the stratigraphic correlation. The following summarizes the results of the comparison.

- CPT logs compared to geologist logs
  - Favorable comparison, generally good agreement
  - Cases where there was poor agreement were when fine scale silty or sandy interbeds were present in clays. Geologist might note "sandy interbeds" but classify interval as clay. If no depth interval was provided for this specific zone it could not be portrayed on Graphic Grain Size log.
- CPT Logs to Grain Size Analysis
  - Compared nine sample intervals
  - Excellent correlation was observed in eight intervals
  - One exception for soil interval at 18CPTMW10 (16 to 17 ft bgs) was observed
    - CPT log indicated coarse-grained material is predominant
    - Grain size distribution identified more fine grained soil is predominant (confirmed by geologist log)

3.1.2.2.3 Stratigraphy Summarized

Cross sections A-I (Appendix C), show the correlations developed for the LHAAP-18/24 site. A description of section findings and contents follows below (**Appendix C**).

3.1.2.2.4 Shallow Alluvium

As shown in the sections the site stratigraphy is very heterogeneous with a shallow alluvial zone consisting of discrete sand channels encapsulated in lower permeability silt/clay floodplain sediments. The thickness of the shallow alluvium is variable, because of the irregular contact with underlying Wilcox. Thickness ranges from 10 to 40 ft. The zone is characterized by potentially complex flow paths, gradients depending on where sandy channel deposits intersect and/or diverge. In general the axes of channel deposits trend toward the north and northeast.

The permeable intervals (sands, silty sands) associated with individual channel fill or point bar sediment packages range in thickness from 10 to 20 ft thick generally. Sands are typically fine to medium grained. Many of the channel fill sand bodies include a percentage of silt. Levee or overbank sand bodies were identified where possible. Typically the fine levee sands display an abrupt coarsening upward grain size trend, are 5 to 10 ft in thickness, and may have some evidence of root or soil formation in the form of noted "mottling: of the sediments.

When possible, the two generations of alluvial cover discussed previously are separated by a green dashed line on the cross sections. Alluvial area 1, alluvium associated with the Harrison Bayou, is identified on the western portion of sections A, C, H and on the northern end of section D. Alluvial Area 2 is all other alluvium south and east of the Harrison Bayou alluvium.

3.1.2.2.5 Wilcox Formation

A clay unit separating the shallow alluvium from the Wilcox sands occurs at the top of the Wilcox formation throughout most of the site. However, this clay is missing in the northwestern corner of the site. Sections A, B, C, H, and J clearly show this (near MW-18, 18WW02, 18WW11, 18WW10, and 18CPT09). The clay is missing where fluvial incision has occurred during both the deposition of the shallow Wilcox (incision indicated by a well defined gravel lag deposit at 18WW06, cross section A) as well as well as later incision by the Harrison Bayou (cross section C). Sections J and D show the variability in the thickness and extent of the "Wilcox Clay" layer as well. This clay varies in thickness from 0 to 20 ft and may be in contact with overlying floodplain silts and clays or incised by overlying channel sands. In some areas isolated thin beds of silty sand are contained within the clay (18CPT-21, 18CPT-25, and MW-3, section F).

The sands of the Wilcox vary in grain size from medium to fine silty sands. The more homogenous nature (both vertically and horizontally) of the unit is visible on all sections. While fewer borings penetrate the deeper sands of the Wilcox, the borings that do penetrate tend to record a vertical succession of sands and silty sands with few clay intervals occurring underneath the upper clay. Section J shows provides an effective example of the sandy nature of the Wilcox. (18WW02, 18CPT10, 18CPT02 and 18CPT22). Section A, on its eastern end at C-04, shows one of the few locations of interbedded sands and clay within the Wilcox in the study area.

3.1.3 Groundwater Elevation and Vertical Gradients

A groundwater gauging event was conducted in May 2013 to determine the depth to groundwater across the site in the shallow zone and Wilcox Formation, estimate the horizontal gradients and groundwater flow directions, and determine the vertical gradient among nested wells within and outside the containment. The field sampling logs are provided in **Appendix D**. A list of nested wells within and outside the containment area is presented in **Table 3-1** along with their screened intervals. Synoptic elevation maps from the May 2013 gauging event for the shallow zone and Wilcox Formation wells are presented in **Figures 3-1 and 3-2**. The potentiometric maps continue to indicate high groundwater in the north central area of the site with horizontal gradients occurring outwardly in all directions within the shallow zone. During the gauging events, groundwater elevation data reflect groundwater extraction conditions where re-injection of groundwater was not occurring but discharge to Harrison Bayou was occurring. The historical highest groundwater elevation occurred in monitoring well 123. However, a new high was observed in monitoring well 18CPTMW04 at an elevation of 173.60 ft above mean sea level (amsl), which is 0.61 ft higher than the elevation observed in monitoring well 123.

The potentiometric maps in the shallow saturated zone reflect influence from groundwater extraction, as depicted by the shape of the 169 ft potentiometric elevation, which runs almost along the northwesterly and southwesterly site boundaries, irrespective of groundwater elevation within the locations of water highs. The groundwater elevation observed in the northeasterly boundary was approximately 168 ft amsl, which is one ft lower than the other two boundary lines, indicating a greater drawdown in this of the site from ICT extraction. The horizontal gradients within the containment to the southwesterly, northwesterly, and northeasterly directions are steeper than the gradient to the southeasterly direction, a reflection of effect of ICT extraction on drawdown and steepening of horizontal gradients towards the extraction points.

Flattening or even reversal of gradients outside the containment is also observed in the southwesterly, northwesterly, and southeasterly direction due to influence of extraction, although the potentiometric lines outside the containment area aren't as uniformly defined.

The influence of groundwater extraction is observed to the northeast outside the containment area by the slight reversal of gradient in that area of the site. For example, in the southern area of the northeastern boundary, groundwater elevation in C-08, located downgradient from site boundary, of 168.60 ft amsl is higher than the groundwater elevation observed in 18CPTMW24, located near the site boundary, at an elevation of 167.61 ft amsl. Similarly, in the center of the northeastern boundary, monitoring well 109 at the site boundary had an elevation of 166.82 ft amsl, lower than the "downgradient" monitoring well 18CPTMW18 at an elevation of 167.15 ft amsl. Finally, in the northern area of the northeastern boundary, monitoring well 18WW22, located downgradient from site boundary, had an elevation of 167.88 ft amsl, higher than elevation at the site boundary measured in BGPZ07 of 167.82 ft amsl. Similar observation in the southwest and northwest could not be made as succinctly (although an appearance of reversal of gradient might be established at certain locales such as between MW-18 and MW-8), generally due to the presence of ICT liners preventing free communication between the on-site extraction and off-site groundwater.

A similar high in the western area of the site can be observed in the Wilcox Formation. Likely these high are due to influence of Harrison and Goose Prairie Bayous on site hydrology.

Several Wilcox Formation wells were gauged in May 2013. Wilcox Formation wells correspond generally with those wells previously identified as "Intermediate" and "Deep" wells. "Intermediate" wells are designated as upper Wilcox Formation wells and "Deep" wells are designated as lower Wilcox Formation wells. Generally, the Upper and Lower Wilcox Formation wells are in communication and can be mapped as a single formation. **Figure 3-2** presents the Wilcox Formation monitoring wells depicting potentiometric lines for the May 2013 gauging event. Generally, the Wilcox aquifer groundwater appears to have similar flow characteristics as the shallow zone with a high near the northwestern portion of the site and radial flow to the northeast, northwest, and southwest. These flow directions appear to be influenced by site setting located between Harrison Bayou, Saunders Branch, and Caddo Lake. Three lower Wilcox Formation wells were not used for mapping the potentiometric surface of the Wilcox Formation: 18CPTMW01DW, 18CPTMW08DW, C-04A due to the discrepancy of groundwater level between these wells and co-located upper Wilcox wells (18CPTMW01SW, 18CPTMW08SW, and C-04). In particular, the difference in groundwater elevations between 18CPTMW01SW and 18CPTMW01DW was over 27 ft. The depth to groundwater in 18CPTMW01DW will be measured in future gauging events and the cause of this discrepancy if persisted will be investigated and addressed.

Absolute elevations of groundwater were mapped for co-located wells. Therefore, the important determination of the vertical gradients between the shallow zone and Wilcox Formation were discerned. A summary of the elevation data from the May 2013 gauging event is presented in **Table 3-2**.

The data in general indicates an upward gradient between upper Wilcox and the shallow zone within the containment with the exception of areas of MW-5 and 18CPTMW04. The area of MW-5 indicates a downward gradient between the shallow zone and the upper Wilcox Formation but the opposite occurs between the shallow zone and the lower Wilcox Formation

and between the upper Wilcox and lower Wilcox. The relationship with the lower Wilcox will have to be confirmed by future gauging events as the current data represent a single data point. However, MW-5 is nearest to ICT 13F and ICT 13G. ICT 13F does not extract significant amounts of groundwater due to the low level of groundwater in that area of the site and ICT 13G continues to be non-operational, based on a decision that was made several years ago as a result of poor extraction quantities of groundwater from that area of the site. Therefore, due to lack of groundwater extraction in this area of the site, the vertical gradient continues to be downwardly between the shallow zone and the upper Wilcox Formation.

The other area within the containment with a downward vertical gradient between the shallow zone and Wilcox Formation is at 18CPTMW04 which is the area adjacent to ICT-6. ICT-6 was used as a re-injection trench between 2007 and 2012. Historical data from MW-1 located just to the south of ICT-6 indicated that the influence of re-injection was a significant increase in groundwater level in the shallow zone. While water re-injection has ceased since June 2012, the vertical gradient continues to be in a downward direction with nearly 4 ft of head.

The upward gradients observed in the other areas of the site reflect the effect of ICT extraction on reversing the gradient between the shallow zone and the Wilcox Formation. The areas near MW-2 and MW-22 are influenced by extraction in ICT 8 which has one of the highest extraction quantities and a large area of influence, the area near MW-21 is influenced by extraction in ICT 14D and ICT 14E, and the area near monitoring well 120/MW-14 is influenced by extraction in ICT 12E and ICT 13A.

Outside the containment area, the majority of well pairs indicate a downward vertical gradient between the shallow zone and the upper Wilcox Formation with the exception of wells pairs 18WW08/18WW09 and 18WW10/18WW11. The downward gradient reflects natural groundwater vertical gradient not influenced by groundwater extraction. The upward gradient is observed in the two well pairs closest to Harrison Bayou. It is possible that the dry conditions and drainage of the shallow zone into Harrison Bayou under these conditions (i.e., Harrison Bayou creates a hydraulic boundary) would result in depletion of groundwater head in the shallow zone in these areas of the site that could result in an appearance of an upward groundwater vertical gradient.

3.2 Contaminant Distribution

To address several data gaps in the CSM including the presence and distribution of contaminants primarily within the Wilcox Formation inside the containment area and within the shallow zone outside the containment area, several investigative methods were completed as identified above.

3.2.1 Discrete Soil/GW Data

Discrete soil and groundwater samples were collected from the shallow zone to determine the presence of contaminants at intervals within the vadose or unsaturated zone (potential source areas) and the shallow saturated zone (to determine where contamination is present and at what depths bgs). The results for these discrete soil and groundwater samples are presented in **Tables 3-3 and 3-4, respectively**. These results are analyzed within the context of MIP data output. Quality control summary is presented in **Appendix D**. Laboratory analytical reports are provided on a compact disc.

Generally, DELCD results were the main MIP output that is most relevant to the detection of chlorinated VOCs. Therefore, correlation of DELCD output with discrete soil sample concentrations of VOCs was reviewed. DELCD output generally has a baseline signal of 0.25 E5 uV. Therefore, all DELCD signals were corrected for this baseline signal. Plotting corrected DELCD response with total VOC concentrations for all soil samples produces **Figure 3-3**. The figure indicates that a near linear correlation is present at lower concentrations, but at higher concentrations (e.g., a DELCD signal at or above 1.00 E06 uV), the correlation deviates from linearity. **Figure 3-4** captures the correlation between corrected DELCD signal up to 1.00 E06 uV and VOC concentrations up to 5,000 ug/kg. A reasonable correlation was identified between corrected DELCD response and VOC concentrations with a correlation coefficient just over 50%. However, in general, corrected DELCD response signal is more sensitive at lower concentrations than analytical data due to reporting limits associated with analytical data. Only on one occasion where the corrected DELCD signal was zero (i.e., no response) for a VOC concentration of 2.3 ug/kg ("J"-flagged) for TCE. Therefore, it was determined that the DELCD MIP signal provides accurate representation of presence and relative magnitude of VOCs in subsurface soils.

3.2.2 MC and TCE Distribution in the Shallow Zone and Wilcox Formation

Investigations at locations 18CPT01 through 18CPT10 were conducted to assess the presence of CoCs and to assist in understanding distribution of CoCs (particularly methylene chloride) within the containment area of the site. Additional investigation locations were also included based on field conditions included 18CPT20, 18CPT21, and 18CPT25 through 18CPT27. The discussion of results for the discrete soil and groundwater samples are included in subsequent sections. In this section and in **section 3.2.3**, the discussion is focused on the analytical results and CoC distribution in the two identified groundwater zones at the site. Quality control summary is presented in **Appendix D**. Laboratory analytical reports are provided on a compact disc.

The distribution of MC and TCE in the shallow and Wilcox water-bearing zones are presented in **Figures 3-5 and 3-6 for MC and Figures 3-6 and 3-7 for TCE**. A summary of the analytical results for the monitoring wells is presented in **Table 3-5**.

MC distribution in the shallow zone continues to reflect the same trend as historical distribution data with a very high concentration (1,050,000 ug/L) identified in MW-2 but none is reported in adjacent wells. The area in the vicinity of MW-2 is sourced from the former UEP operations. Another area of detection of MC but at much lower concentrations occurs in the western corner of the site with the highest concentration reported in monitoring well 120 at 160 ug/L (170 ug/L in duplicate sample). The area in the vicinity of 120 is sourced from the former ACD operations. The distribution of MC in the shallow zone is well defined in all directions.

Two discrete groundwater samples were collected from within the former UEP: 18CPT21 (24 to 28 ft bgs) and 18CPT25 (28 to 32 ft bgs). The concentration of MC in 18CPT21 (24 to 28 ft bgs) was 7,270 ug/L and in 18CPT25 (28 to 32 ft bgs), MC was < 1.67 ug/L. These concentrations fit well with the presence of a high MC concentration at MW-2 with decreasing concentrations away from this location. The presence of much lower concentrations of MC in groundwater in close proximity to MW-2 indicates that the MC plume is very well contained in the shallow zone.

Additionally, a discrete groundwater sample was collected from 18CPT13 (35 to 36 ft bgs). The concentration of MC in this sample was < 0.5 ug/L (**Table 3-4**), which falls within the samples collected from adjacent monitoring wells such as 18CPTMW14 and 18CPTMW22. Three discrete groundwater samples were collected from 18CPT15 at depths of 14 to 18 ft bgs, 25 to 29 ft bgs, and 38 to 42 ft bgs. The concentration of MC in these groundwater samples were < 0.5 ug/L. The concentration of MC in 18CPTMW15 was < 0.5 ug/L, which matches the concentration in the groundwater samples, **indicating that MC is not migrating to this area of the site** within the shallow zone.

MC was detected in several Wilcox Formation wells. The distribution of MC in the Wilcox Formation is presented in **Figure 3-6**. The isopleth map depicts primarily the concentrations in the upper Wilcox Formation. A concentration of 2,630 ug/L was reported in 18CPTMW01SW, indicating a downward migration has occurred (or is occurring), although the vertical gradient at this location indicates an upward trend. MC concentration in the upper Wilcox Formation is likely reflecting migration that occurred historically prior to installation of the ICTs and EW01. Particularly, several historical wells with BH- series were installed in the late 1980's in and around the UEP appear to have penetrated the Wilcox clay. These wells which reported very high concentrations of CoCs were plugged in the early 1990's due to concerns about their construction (Kindle, Stone & Associates, Inc. 1984). The discrete groundwater sample collected at 18CPT01 (69.5 to 70.5 ft bgs) indicated the presence of 182 ug/L MC, which is an order of magnitude smaller than the concentration of MC in 18CPTMW01SW.

MC migration to 18CPTMW06SW (upper Wilcox), which is adjacent to MW-22, has occurred. MC concentration in 18CPTMW06SW was reported at 597 ug/L. This concentration is two orders of magnitude greater than the MC concentration reported in MW-22 (0.531 ug/L ("J"-flagged)). Therefore, it appears that vertical migration of MC at this location is not the cause of the high concentration of MC in the upper Wilcox Formation. Rather, it is possible that MC has migrated from the vicinity of 18CPTMW01SW, south of the former UEP, in the direction of the groundwater gradient in the upper Wilcox Formation. An alternative hypothesis is that MC in 18CPTMW06SW occurred historically but because of treated water re-injection in ICT-9 for several years, the concentration of MC in the shallow zone reflects current "flushed" conditions and not historical impacts. Review of MW-22 concentrations trend indicates that MC concentration in this well was 3,880 ug/L in December 1996 and decreased to near non-detection due to groundwater extraction. Re-injection of groundwater resulted in a slight increase in MC concentration to 12 ug/L in November 2009 but was reduced again to non-detect in September 2011 and thereafter.

TCE in the shallow zone continues to reflect the same general distribution as historical distribution data with high concentrations (68,400 ug/L and 24,500 ug/L) identified in MW-2 and 120, respectively (**Figure 3-7**). The area in the vicinity of MW-2 is sourced from the former UEP operations and the area in the vicinity of 120 is sourced from the former ACD operations. Generally, TCE concentration decreases in adjacent wells by an order of magnitude with additional decrease occurring away from these two wells.

Two discrete groundwater samples were collected from within the former UEP: 18CPT21 (24 to 28 ft bgs) and 18CPT25 (28 to 32 ft bgs). The concentration of TCE in 18CPT21 (24 to 28 ft bgs) was 11,700 ug/L and in 18CPT25 (28 to 32 ft bgs), TCE was 77.6 ug/L. These

concentrations fit well with the presence of a high TCE concentration at MW-2 with decreasing concentrations away from this location.

The distribution of TCE in the shallow zone is well defined in all directions with the exception to the southeast. In the southeast boundary of the site, three new shallow wells were installed. These wells contained TCE at 66.4 ug/L in 18CPTMW22, 413 ug/L in 18CPTMW14, and 68.8 ug/L in 18CPTMW24. Additionally, a discrete groundwater sample was collected from 18CPT13 (35 to 36 ft bgs). The concentration of TCE in this sample was 22.8 ug/L (**Table 3-4**), which falls well within the 5 and 100 ug/L isopleth contour lines as depicted in **Figure 3-7**. Three discrete groundwater samples were collected from 18CPT15 at depths of 14 to 18 ft bgs, 25 to 29 ft bgs, and 38 to 42 ft bgs. The concentration of TCE in these groundwater samples were 3.53 ug/L, < 0.5 ug/L, and < 0.5 ug/L, respectively. The concentration of TCE in 18CPTMW15 was 3.58 ug/L, which matches the concentration in the shallow groundwater sample (14 to 18 ft bgs), **indicating that TCE migration is occurring in the upper portion of the groundwater in this area of the site** or, specifically, within the shallow zone. Note 18CPTMW15 is screened between 15.8 and 35.3 ft bgs and straddles the shallow zone and the Wilcox Formation. The Wilcox clay is not identified in this area of the site and both units are in communication.

Delineation of the extent of TCE in this area of the site would occur if the sampling program included monitoring wells 126, C-09, and 17WW08. Since monitoring well 17WW08 is associated with LHAPP-17, the detection of TCE in 17WW08 might require further assessment to determine the source of TCE in this area.

TCE was detected in several Wilcox Formation wells. The distribution of TCE in the Wilcox Formation is presented in **Figure 3-8**. The isopleth map depicts primarily the concentrations in the upper Wilcox Formation, although low concentrations were observed in the lower Wilcox (highest concentration observed in 18CPTMW10DW at 7.56 ug/L). The highest TCE concentration of 91.4 ug/L was reported in 18CPTMW01SW, indicating a downward migration from the shallow zone has occurred (or is occurring), although the vertical gradient at this location indicates an upward trend. TCE concentration in the upper Wilcox Formation is likely reflecting migration that occurred historically prior to installation of the ICTs and EW01. Particularly, several historical wells with BH- series were installed in the late 1980's that appear to have penetrated the Wilcox clay. These wells, which reported very high concentrations of CoCs, were plugged in the early 1990's due to concerns about their construction (Kindle, Stone & Associates, Inc. 1984). The discrete groundwater sample collected at 18CPT01 (69.5 to 70.5 ft bgs) indicated the presence of 2.42 ug/L TCE, which is nearly an order of magnitude smaller than the concentration of TCE in 18CPTMW01SW.

TCE migration to 18CPTMW06SW (upper Wilcox), which is adjacent to MW-22, has occurred. TCE concentration in 18CPTMW06SW was reported at 30.9 ug/L. This concentration is one order of magnitude lower than the TCE concentration reported in MW-22 (213 ug/L ("J"-flagged)) and could be sourced from the shallow zone prior to installation of ICT extraction system. Historical concentrations of TCE indicates a concentration of 3,020 ug/L in MW-22 in December 1996 prior to ICT extraction occurred. Groundwater extraction didn't appear to reduce the concentration for TCE in MW-22 which peaked at a concentration of 3,180 ug/L in May 2006. TCE concentration decreased steadily due to the "flushing" effect of re-injection in ICT9

to current concentrations. Therefore, it appears that vertical migration of TCE at this location is the likely cause of the presence of TCE in the upper Wilcox Formation.

Another area of presence of TCE in the Wilcox Formation is in the vicinity of MW-5 to the north of the former UEP. The concentration in the upper Wilcox well 18CPTMW08SW is 58.3 ug/L. The concentration in co-located shallow zone well, MW-5 is 45.7 ug/L. While the gradient in the vicinity of MW-5 is downward, the low concentration in MW-5 (including historical concentrations with a maximum concentration of 220 ug/L occurring in September 1999) precludes a vertical downward migration as the source of impact in the upper Wilcox at this location. Rather, TCE concentration in the upper Wilcox Formation is likely reflecting migration that occurred historically associated with the installation in the late 1980's of several historical wells with BH- series that appear to have penetrated the Wilcox clay. These wells, which reported very high concentrations of CoCs, were plugged in the early 1990's due to concerns about their construction (Kindle, Stone & Associates, Inc. 1984). The discrete groundwater sample collected at 18CPT08 (64 ft bgs) indicated the presence of 29.1 ug/L TCE, which is approximately 50% of the concentration of TCE in 18CPTMW08SW.

A third area where TCE is present in the Wilcox Formation is in the vicinity of MW-9 to the west of the former ACD. The concentration in the upper Wilcox well 18CPTMW10SW is 23.9 ug/L. The concentration in co-located shallow zone well, MW-9 is 2,400 ug/L. The vertical gradient in the vicinity of MW-9 is downward and the concentration in the upper Wilcox is likely sourced from the shallow zone. Elevated historical concentrations of TCE in MW-9 (e.g., 11,000 ug/L in September 1988) also support this hypothesis. The discrete groundwater sample collected at 18CPT10 (63 to 64 ft bgs) indicated the presence of 33.1 ug/L TCE, which is similar to the concentration of TCE in 18CPTMW10SW. Collection of groundwater samples from monitoring wells MW-14 and 18WW02 will be included in future sampling events to determine the extent of TCE in the Wilcox Formation to the north of 18CPTMW10SW.

3.2.3 Perchlorate Distribution in the Shallow Zone and Wilcox Formation

Data collected from new groundwater monitoring wells for perchlorate expanded the understanding of perchlorate presence and distribution within and outside the containment area in the shallow zone and Wilcox Formation. The distribution of perchlorate in these water-bearing zones are presented in **Figures 3-9 and 3-10**. A quality control summary is presented in **Appendix D**. Laboratory analytical reports are provided on a compact disc.

Perchlorate in the shallow zone continues to reflect the same general distribution as historical distribution data with high concentrations present at several locations of the site and newly identified high concentrations. Existing high perchlorate concentrations in the shallow zone include monitoring well 109 (50,400 ug/L), MW-21 (43,700 ug/L), MW-5 (27, 600 ug/L), MW-23 (55,600 ug/L), MW-8 (72,000 ug/L), and 120 (95,000 ug/L and 81,500 ug/L in the duplicate). Newly discovered high perchlorate concentration was identified in 18CPTMW22 at a concentration of 118,000 ug/L (**Figure 3-9**). Perchlorate distribution identifies three areas with high perchlorate concentrations. These areas include the area to the east of the former UEP, in the vicinity of the former ACD, and an area to the southwest of the site were a washing sump was operated and drainage from the sump migrated to the west and south. The distribution pattern of perchlorate is generally similar to TCE but the local areas of high concentrations

(potential source areas) are different with more numerous locations for perchlorate with higher concentrations with the exception of the area of MW-2 to the south of the former UEP.

Two discrete groundwater samples were collected from within the former UEP: 18CPT21 (24 to 28 ft bgs) and 18CPT25 (28 to 32 ft bgs). The concentration of perchlorate in 18CPT21 (24 to 28 ft bgs) was 4.72 ug/L and no analysis was completed from 18CPT25 (28 to 32 ft bgs) for perchlorate due to insufficient volume of water. The low concentration of perchlorate within the UEP doesn't fit the data from adjoining wells to the south and east such as MW-2, MW-3, and MW-5 but fits well with the concentration of perchlorate measured in 18CPTMW04 to the west of the UEP with a concentration of 6.48 ug/L.

The distribution of perchlorate in the shallow zone is well defined in all directions with the exception to the southeast and northwest. In the southeast boundary of the site, three new shallow wells were installed. These wells contained perchlorate at 118,000 ug/L in 18CPTMW22, 1,560 ug/L in 18CPTMW14, and 710 ug/L in 18CPTMW24. Additionally, a discrete groundwater sample was collected from 18CPT13 (35 to 36 ft bgs). The concentration of perchlorate in this sample was 41,600 ug/L (**Table 3-4**), which falls well within the 50,000 and 10,000 ug/L isopleth contour lines as depicted in **Figure 3-9**. **Delineation of the extent of perchlorate in this area of the site would occur if the future sampling program included monitoring wells 126, C-10, C-09, and C-01.**

To the northwest, high perchlorate concentrations in 18CPTMW23 and 18CPTMW15 were reported with no delineation towards Harrison Bayou. Three discrete groundwater samples were collected from 18CPT15 at depths of 14 to 18 ft bgs, 25 to 29 ft bgs, and 38 to 42 ft bgs. The concentration of perchlorate in these groundwater samples were 2,620 ug/L, 87.5 ug/L, and 6.16 ug/L, respectively. The concentration of perchlorate in 18CPTMW15 was 825 ug/L, which reflects the concentration in the shallow groundwater sample (14 to 18 ft bgs), **indicating that perchlorate migration is occurring in the upper portion of the groundwater in this area of the site** or, specifically, within the shallow zone. Note 18CPTMW15 is screened between 15.8 and 35.3 ft bgs and straddles the shallow zone and the Wilcox Formation. The Wilcox clay is not identified in this area of the site and both units are in communication.

18CPTMW23 is screened between 21 and 30.5 ft bgs, which is entirely within the Wilcox Formation. However, because of lack of a Wilcox clay layer in this area of the site and based on results from discrete groundwater samples from 18CPT15, which is located in the same area of the site, it is believed that perchlorate migration to 18CPTMW23 is occurring in the shallow zone but migrates vertically downward when Wilcox clay becomes absent and vertical communication between the shallow and Wilcox formations occurs unimpeded.

To delineate the extent of perchlorate in this area of the site, a monitoring well to the north of 18CPTMW23 within the shallow zone/Wilcox Formation is recommended. A deeper monitoring well (~ 55 to 65 ft bgs) adjacent to 18CPTMW23 is also recommended.

Perchlorate was detected in several Wilcox Formation wells. The distribution of perchlorate in the Wilcox Formation is presented in **Figure 3-10**. The isopleth map depicts primarily the concentrations in the upper Wilcox Formation, although low concentrations were observed in the lower Wilcox (highest concentration observed in 18CPTMW08DW at 0.468 ug/L). The highest perchlorate concentration of 39,100 ug/L was reported in 18CPTMW08SW, indicating a downward migration from the shallow zone has occurred (or is occurring); although the

concentration reported in 18CPTMW08SW is greater than the concentration in MW-5 at 27,600 ug/L and is higher than the highest historical concentration in MW-5 of 32,200 ug/L in May 2003. The presence of historical wells with BH- series installed in the late 1980's that might have penetrated the Wilcox clay may have resulted in release of perchlorate to the upper Wilcox Formation. These wells, which reported very high concentrations of CoCs, were plugged in the early 1990's due to concerns about their construction (Kindle, Stone & Associates, Inc. 1984). The discrete groundwater sample collected at 18CPT08 (64 ft bgs) indicated the presence of 66,000 ug/L perchlorate, which is similar to the concentration of perchlorate in 18CPTMW08SW.

The second highest perchlorate concentration was reported in 18CPTMW01SW at 38.3 ug/L and the third highest concentration occurred in 18CPTMW10SW at 16.6 ug/L. The discrete groundwater sample at 18CPT01 (69.5 to 70.5 ft bgs) reported a perchlorate of 21.3 ug/L, in line with the well sample. However, the discrete groundwater sample from 18CPT10 (63 to 64 ft bgs) had a perchlorate concentration of 13,800 ug/L, which is three orders of magnitude higher than reported in the upper Wilcox well at that location. This high concentration in the discrete groundwater sample cannot be explained by potential seepage of shallow groundwater since the concentration of perchlorate in MW-9 is 320 ug/L. This discrepancy could not be explained. A similar discrepancy was also observed between perchlorate concentration in 18CPTMW12SW at < 0.2 ug/L and the concentration in the discrete groundwater sample at 18CPT12 (64 ft bgs) of 1,470 ug/L, although at this location the perchlorate concentration in MW-7 (shallow well co-located with 18CPTMW12SW) was 37,500 ug/L, which could imply cross-contamination may have occurred at this location during extraction of the discrete groundwater sample.

3.2.4 Source of Contaminants in the Vadose Zone

MIP data and discrete soil data collected at locations 18CPT01, through 18CPT09, 18CPT20, 18CPT21, 18CPT25, 18CPT26, and 18CPT27 allow collection of additional vadose soil data to supplement existing historical information. MIP results are presented in **Appendix A**. Discrete soil data are presented in **Table 3-3** (see **Section 3.2.1**). MIP signals and discrete sample concentrations were reviewed in the context of identifying vadose zone sources and a summary of the data is presented in **Table 3-6**. The table provides the general depth to groundwater which identifies the depth to the saturated interval. MIP and soil data beneath this depth are considered within the saturated zone. Data collected from shallower soil is considered in the vadose zone and depending on concentration levels could constitute a source zone, noting however that groundwater fluctuations and the presence of a capillary fringe makes the saturated zone shallower than indicated by depth groundwater in monitoring wells. The information is discussed briefly below for each location.

3.2.4.1 18CPT01 Location

Saturation at this location occurs at a depth of approximately 24 ft bgs based on water level at MW-2. Two soil samples were collected from 7 to 8 and 15 to 16 ft bgs. The concentrations in these samples indicate the presence of low concentrations of VOCs but much lower than the concentration observed at a depth of 40-40.5 ft bgs. Additionally, MIP response in the vadose zone indicated the presence of low responses beginning at 7 ft bgs but not showing a significant increase until a depth of 30 ft bgs (i.e., within the saturated zone). This distribution correlates well with analytical results of the four discrete soil samples. A similar observation was recorded

by the PID readings of the soil samples collected by the geologist from this boring. PID (with 11.7 eV lamp) was very low in the vadose zone soil and increased significantly in the saturated interval (see Appendix A for boring logs). These results indicate the source of contamination in this area is from within the saturated zone.

Using soil porosity of 0.40, a bulk density of 1.951 kg/L, and organic carbon content of 0.1761% (based on 9 soil samples collected from various locations and soil types), and assuming water saturation (i.e., no void space), using soil saturation equation (Appendix F) published in the TCEQ risk reduction program allows determination of soil concentration implying presence of DNAPL for TCE and MC. The calculations indicate that a concentration between 404,000 ug/kg and 414,000 ug/kg in soil for TCE and between 3,305,000 ug/kg and 3,590,000 ug/kg in soil for MC imply DNAPL presence.

3.2.4.2 18CPT02 Location

Saturation at this location occurs at a depth of approximately 24 ft bgs. Two soil samples were collected above this depth and some VOCs were detected with TCE concentration increasing significantly at a sample depth of 21 to 22 ft bgs which was collected based on MIP signal output. The MIP signal indicated the presence of contamination beginning at 21 ft bgs to terminus at 45 ft bgs. Concentration of soil sample at 41 to 42 ft bgs was lower than shallower soil for TCE (**Table 3-6**) but much higher for MC (**Table 3-6**). The interval at 41 to 42 ft bgs had near the highest MIP response as well. PID results of soil samples collected by the field geologist from this boring also indicated a low response at 29 to 30 ft bgs (PID = 3.4 part per million by volume [ppmv]) and a higher response at a depth of 41 to 42 ft bgs (PID = 54.2 ppmv). The results from this boring indicates the presence of contamination in the saturated zone and in the lower portions of the vadose zone within the smear zone of groundwater fluctuations/and or the capillary fringe. Since no contamination was detected in soil shallower than 21 ft bgs, the source of contamination in this area appears to be from within the saturated zone.

3.2.4.3 18CPT03 Location

Saturation occurs at a depth of approximately 25 ft bgs. Four discrete soil samples were collected from this location. The two samples within the vadose zone are fairly unimpacted with the concentrations in the samples within the saturated zone indicating the presence of impact increasing with depth. MIP results substantiate these observations with no MIP signal occurring until 18 ft bgs. The sample collected at 21 to 22 ft bgs showed low concentrations of TCE (22.7 ug/ kg), 2 orders of magnitude smaller than the sample collected in the saturated zone at 34 to 35 ft bgs (2,320 ug/ kg TCE). PID readings also indicate no instrument response until a depth of 34 to 35 ft bgs (14.1 ppmv). Therefore, these results indicate the source of contamination in this area is from within the saturated zone.

3.2.4.4 18CPT04 Location

The depth to water from the shallow zone well installed at this location (18CPTMW04) is approximately 23 ft below top of casing (btoc), which is approximately 20 ft bgs. No soil samples were collected from this location. However MIP results indicated the presence of contamination at a depth between 13 and 20 ft bgs (DELCD response). MIP PID response indicated the presence of contamination between 22 and 24 ft bgs. Field PID response from soil samples collected by the geologist up to 40 ft bgs ranged between 0 and 0.5 ppmv (i.e.,

background levels). These data indicate the presence of a localized vadose zone and groundwater smear zone VOCs between 13 and 22 ft.

Perchlorate in shallow zone groundwater was reported at 6.48 ug/L, TCE at 86.6 ug/L, MC at < 0.5 ug/L, and cis-1,2-dichloroethene at 49.5 ug/L. Other VOCs were reported at lower concentrations. Although this location is immediately adjacent to the former UEP to the west, the groundwater results indicate very low concentrations of CoCs. In the upper Wilcox Formation well (18CPTMW04SW), perchlorate was reported at 0.453 ug/L, carbon disulfide was reported at 2.47 ug/L, and MC at 0.785 ug/L ("J"-flagged). The presence of carbon disulfide and MC in the upper Wilcox Formation well is not related to vertical migration of CoCs at this location due to their absence from the shallow zone well (18CPTMW04). MC and carbon disulfide are laboratory contaminants with MC being most common. Traces of carbon disulfide may occur inadvertently from handling in the laboratory but also as a degradation by-product from certain contaminants and probably naturally occurring compounds (Korte, 1999).

3.2.4.5 18CPT05 Location

Saturation occurs at a depth of approximately 17 ft bgs as determined from surveyed ground elevation and depth to water from shallow zone potentiometric map for May 2013 (Figure 3-1). Depth to water in the adjacent AWD-2 monitoring well is 14 ft btoc or approximately 11 ft bgs. Wilcox clay is observed at 35 ft bgs to 40.5 ft bgs (boring terminus). Four discrete soil samples were collected from this location. One sample from 15 to 16 ft bgs was from within the groundwater smear zone or capillary fringe, the other three samples are from within the saturated zone. While impact was observed at the 15 to 16 ft bgs sample (8,530 ug/ kg TCE and < 222 ug/ kg MC for example), a significant increase in concentration of VOCs and perchlorate was observed at 25 to 26 ft interval bgs 161,000 ug/ kg TCE and 369,000 ug/ kg MC) and deeper. MIP results corroborate these observations with MIP signal increase occurring at 15 ft bgs and a significant increase occurring at 25 ft bgs and deeper intervals. PID readings at 15 to 16 ft bgs (20.7 ppmv) and deeper soil intervals (maximum of 1,080 ppmv at a depth of 25 to 26 ft bgs) also substantiated these observations with an increasing PID response below 15 ft bgs. The sample at 39 to 40 ft bgs showed a decrease in MIP response, decrease in analyzed VOC (and perchlorate) concentrations, and lower PID readings (196 ppmv at 39 to 40 ft bgs) than shallower soil. This sample was collected from within the Wilcox clay layer separating the shallow zone from the Wilcox Formation. These results indicate the source of contamination in this area is from the saturated zone.

3.2.4.6 18CPT06 Location

Saturation occurs at a depth of approximately 25.5 ft bgs based on depth to water of 28.5 ft btoc in MW-22. Wilcox clay is observed at 40 ft bgs to 49.5 ft bgs (boring terminus). Four discrete soil samples were collected from this location. The results indicated the presence of low level of contamination of VOCs and perchlorate in the unsaturated zone, particularly in the 19 to 20 ft bgs sample interval (106 ug/kg TCE and 331 ug/kg perchlorate) with increasing concentrations within the saturated zone at 38 to 39 ft bgs. The concentration decreases at 43 to 44 ft bgs within the Wilcox clay layer separating the shallow zone from the Wilcox Formation. MIP results show a low signal at 9-10 ft and between 14 and 24 ft bgs. Another signal peak occurred at 38 to 39 ft bgs with decreasing concentrations at deeper intervals. PID readings of the soil showed insignificant response with a maximum value of 3.7 ppmv at a depth of 22 to 23 ft bgs. With the

highest concentrations occurring in the saturated zone, any contribution from the unsaturated zone is not considered significant, noting that concentrations in the unsaturated zone soil is low as discussed above. Additionally, the concentrations at 19 ft bgs may be associated with the smear zone introduced when ICT 9 was used as an injection trench between September 2007 and May 2012. The increase in groundwater level in MW-22 was estimated at 8 ft which would elevate the groundwater to a depth of 17.5 ft bgs, smearing the sampled unsaturated zone depth interval of 19 to 20 ft bgs. These results indicate the source of contamination in this area is from the saturated zone.

3.2.4.7 18CPT07 Location

Saturation occurs at a depth of approximately 29 ft bgs based on results of shallow well MW-21. Wilcox clay is observed at 40 ft bgs to 44 ft bgs (boring terminus). Four discrete soil samples were collected from this location. The results indicate the presence of low level of CoCs increasing with depth but primarily reflecting a source at or within the saturated zone (bottom two sampled intervals at 29 to 30 and 37 to 38 ft bgs). The MIP signals also show a low response at 16 ft bgs that fluctuated slightly until a depth of 29 to 30 ft where the signal increased significantly. This is the beginning of the saturated zone. PID for soil headspace did not reveal the presence of contamination of VOCs with highest response of 1.4 ppmv at a depth of 29 to 30 ft bgs. **These results indicate the source of contamination in this area is from the saturated zone.**

3.2.4.8 18CPT08 Location

Saturation occurs at a depth of approximately 24 ft bgs based on results of shallow well MW-5 at this location. Wilcox clay is observed at 37 ft bgs to 45.5 ft bgs (boring terminus). Two discrete soil samples were collected from this location. The unsaturated sample at a depth of 6 to 7 ft bgs was unimpacted. The sample from within the saturated zone at a depth of 37.5 to 38 ft bgs indicate the presence of low level TCE (11.8 ug/kg) and high concentration of perchlorate (7,060 ug/kg). The DELCD signal showed the highest level near ground surface and decreased steadily throughout the boring depth with localized fluctuations. This behavior appears to reflect carrier tubing saturation at the beginning and tubing gases flushing through the CPT boring depth. MIP FID signals indicated the presence of localized and narrow sources of contamination at 37 to 39 ft bgs. PID readings of samples collected from the boring indicated a PID of 6.8 ppmv at a depth of 6 to 7 ft bgs and zero response at 37.5 to 40 ft bgs. **In general, at this location, there doesn't appear to be unsaturated soil sources for VOCs or perchlorate and the presence of perchlorate occurs only within the saturated zone.**

3.2.4.9 18CPT09 Location

Saturation occurs at a depth of approximately 8.5 ft bgs based on gauging data for 18WW06 in May 2013. Wilcox clay is absent from this area of the site and the soil is mostly coarse-grained below 13 ft bgs. Four discrete soil samples were collected from this location. The unsaturated soil sample at 6 to 7 ft bgs indicated the presence of high perchlorate (2,500 ug/kg) and low VOCs (425 ug/kg "J"-flagged for TCE). Higher VOC but lower perchlorate concentrations were observed within the saturated soil (12 to 13 and 16 to 17 ft bgs). VOC and perchlorate concentrations decreased significantly at 21 to 22 ft bgs to 6.21 ug/kg TCE and 51.3 ug/kg perchlorate. DELCD response occurred in the unsaturated soil at 6 ft bgs, peaked at 12 ft bgs and

began to taper off below 18 ft bgs. No field measured PID from soil samples was recorded above zero in this soil boring. The groundwater table in this area of the site could reach the ground level. Therefore, it is believed that a wide smear zone exists contributing to the presence of lower concentration of VOCs in the shallow unsaturated soil. **However, perchlorate may have been sourced from the ground surface in this area of the site.**

3.2.4.10 18CPT20 Location

Saturation occurs at a depth of approximately 6.8 ft bgs based on gauging data from adjacent well MW-12. No discernible clay layer exists in this area of the site. Three discrete soil samples were collected from this location. The first soil sample at 7 to 8 ft bgs, which is within the water table at this location, indicated the presence of low perchlorate (16 ug/kg) and relatively high VOCs (6,230 ug/kg TCE). Higher VOC (14,400 ug/kg TCE) and perchlorate (9,000 ug/kg) concentrations were observed within deeper intervals of the saturated soil (16 to 17 ft bgs) but VOC concentrations (1,550 ug/kg TCE) decreased at 32 to 33 ft bgs, while perchlorate concentration increased to 19,000 ug/kg. DELCD response occurred in the saturated soil at 7 ft bgs and began to taper off below 38 ft bgs. FID and PID signal peaks were observed between 16 and 20 ft bgs which is within the saturated zone and also tapered off below 38 ft bgs. Tapering off these signals indicate little to no VOCs migrating vertically downward at this location, although clay is absent. Control on migration of CoCs vertically downward is related to the presence of an upward vertical gradient at this location of the site due to ICT extractions.

PID readings recorded by the geologist from field soil samples were 13.4 ppmv at 7 to 8 ft bgs and 18.1 ppmv at 16 to 17 ft bgs. The groundwater table in this area of the site could reach near ground level. Therefore, it is believed that a wide smear zone exists contributing to the presence of lower concentrations of VOCs and perchlorate in the shallow unsaturated soil. **These results indicate the source of contamination in this area is from the saturated zone.**

3.2.4.11 18CPT21 Location

Saturation occurs at a depth of approximately 30.5 ft bgs based on gauging results for MW-1 in May 2013 corrected for difference in ground elevation between MW-1 and 18CPT21 of approximately 6.5 feet. Wilcox clay is observed at 25 ft bgs to 45 ft bgs (boring terminus) with observed silty sand stringers. Three discrete soil samples were collected from this location. The unsaturated soil sample at 16 to 17 ft bgs indicated the presence of low perchlorate (8.4 ug/kg) and relatively high VOCs (11,600 ug/kg TCE). Higher VOC concentrations were observed within the smear zone soil (27 to 28 ft bgs with increasing concentrations to 49 ft bgs). A discrete groundwater sample between 24 and 28 ft bgs was collected and 11,700 ug/L TCE, 7,270 ug/L MC, 18.8 ug/L vinyl chloride, and 4.72 ug/L perchlorate were measured, in line with soil results at this depth. Low DELCD response occurred in the unsaturated soil at 16 ft bgs but increased further at 23 ft bgs to 30 ft bgs at which time it began to taper off to background levels until another distinct peak was observed between 47 and 51 ft bgs, which is within the Wilcox clay. This is where the highest VOC concentrations were observed. Geologist PID readings recorded 103 ppmv at 16 to 17 ft bgs, 602 ppmv at 27 to 28 ft bgs, and 1,540 ppmv at 48 to 49 ft bgs. The highest impact in this area is within the saturated zone. The clean interval present between the saturated impacted zones between 24 and 28 ft bgs and between 47 and 51 bgs might be related to the presence of two sources of contamination at this location. The shallow impact is associated with the former UEP source from the surface impoundment which was not

removed when the impoundment was closed and the second deeper impacted zone is associated with groundwater contamination. The shallow impacted soil appears to remain confined within a narrow interval and not migrating vertically (this is due to lack of infiltration associated with the UEP cap). **These results indicate the source of contamination in this area is from the saturated zone (i.e., removal of sediments from UEP removed the primary source and the construction of a confining cap reduced infiltration and migration potential).**

Concentrations of TCE and MC exceeded the theoretical threshold for presence of implied DNAPL at this location. TCE DNAPL is indicated to be present between 48 and 51 feet bgs in a silty clayey sand to silty clay zone (Wilcox clay). MIP results indicate no impact above this depth, therefore, this impact is confined to this depth and is likely sourced from groundwater impacts. Since this DNAPL is present on top and has penetrated into the confining layer, it is possible for DNAPL to migrate on top of the confining layer along the slope of the confining clay layer. Section F-F' depicts this area and indicates that DNAPL has the possibility to migrate to the north towards 18CPT25 to the north but does not have the potential to migrate to 18CPT04 to the west or MW-3 to the east because the clay layer is present at higher elevations (Section F-F'). The confining clay layer at 18CPT21 is at approximately 155 feet amsl. To the north towards the site boundary (e.g., towards MW-5 and ICT-13F) the clay layer is at a depth of 160 feet amsl. Therefore, it is not possible for DNAPL, if it contains sufficient mass, to migrate towards that direction. The Wilcox clay is located at a depth of approximately 157 feet bgs near MW-2 to the south of 18CPT21, which is a slightly higher elevation than at 18CPT21. Therefore, the DNAPL at 18CPT21 will not migrate to the south. In summary, DNAPL at 18CPT21 will remain confined primarily beneath the former UEP.

3.2.4.12 18CPT25 Location

Saturation occurs at a depth of approximately 28.2 ft bgs based on nearby gauging data for MW-2 in May 2013 corrected for difference in ground elevation between MW-2 and 18CPT25 of approximately 3.7 feet. Wilcox clay is observed at 25 ft bgs to 45 ft bgs (boring terminus) with observed silty sand stringers. Three discrete soil samples were collected from this location. The unsaturated soil samples at 15 to 16 ft bgs and 21 to 22 ft bgs indicated the presence of low perchlorate (4.9 and 7 ug/kg, respectively) and relatively high TCE (7,960 and 7,670 ug/kg, respectively). Higher VOC concentrations were observed within the saturated soil (13,000 ug/kg TCE at 31 to 32 ft bgs). A discrete groundwater sample between 28 and 32 ft bgs was collected and 77.6 ug/L TCE and < 1.67 ug/L MC (no perchlorate sample was collected due to insufficient volume of water) were measured. These concentrations are lower than the soil results at this depth. DELCD response appeared to be steady and very low with a taper down at deeper intervals from about 30 ft bgs. However, no unique peaks were observed. Field PID readings recorded 17.7 ppmv at 15 to 16 ft bgs and 26.3 ppmv at 21 to 22 ft bgs. While MIP did not identify specific impacted depths, the three soil results indicated the presence of TCE in the unsaturated and saturated zones but at much lower concentrations than observed in the saturated zone of 18CPT21. No discernible source is identified in this soil boring. **A similar conclusion can be drawn at this location as 18CPT21.** The shallow impact is associated with the former UEP source from the surface impoundment which was not removed when the impoundment was closed and the second deeper impacted zone is associated with groundwater contamination. The presence of the UEP cap reduces any potential migration of CoCs from the unsaturated zone to the shallow groundwater.

3.2.4.13 18CPT26 Location

Saturation occurs at a depth of approximately 27 ft bgs based on gauging data from MW-6 in May 2013 corrected for difference in ground elevation between MW-6 and 18CPT26 of approximately 6.5 feet. Wilcox clay is observed at 41 ft bgs to 46 ft bgs (boring terminus). Two discrete soil samples were collected from this location. The unsaturated soil sample at 9 to 10 ft bgs indicated the presence of low perchlorate and no VOCs. However, the sample closer to the water table within the smear zone (22 to 23 ft bgs) indicated the presence of very high perchlorate (100,000 ug/kg) and no VOCs. No DELCD response occurred in the unsaturated soil until about 14 ft bgs with a very slight increase occurring thereafter. No discernible source can be identified with this pattern. FID peaks were observed between 8 and 19 ft bgs that was not confirmed by the analytical results from the 9 to 10 ft bgs soil sample. Field PID reading recorded 2 ppmv at 9 to 10 ft bgs and 2.2 ppmv at 22 to 23 ft bgs. **These results indicate there is no source of contamination in this area.** Although the shallow soil sample did not contain CoCs, a similar conclusion can be drawn at this location as 18CPT21. The shallow impact (as depicted by MIP FID) is associated with the former UEP source from the surface impoundment which was not removed when the impoundment was closed and the second deeper impacted zone is associated with groundwater contamination. The presence of the UEP cap reduces any potential migration of CoCs from the unsaturated zone to the shallow groundwater. The high perchlorate in the unsaturated soil sample at 100,000 ug/kg is in line with the high dissolved perchlorate in MW-5 measured at 27,600 ug/L in May 2013.

3.2.4.14 18CPT27 Location

Saturation occurs at a depth of approximately 12.5 ft bgs according to depth to water in MW-9 in May 2013. Wilcox clay is observed at 17 ft bgs to 34 ft bgs. Four discrete soil samples were collected from this location. The unsaturated soil sample at 7 to 8 ft bgs indicated the presence of low perchlorate (5.7 ug/kg) and relatively high VOCs (28,200 ug/kg TCE). Higher VOC concentrations were observed within the saturated soil (17 to 18 ft bgs with increasing concentrations for deeper soils – maximum concentration at a depth of 26 to 27 ft bgs with 2,830,000 ug/kg TCE, 4,950,000 MC, and 17,000 ug/kg perchlorate). Low DELCD response occurred in the unsaturated soil with a small peak occurring at 7 to 8 ft bgs but no discernible increase in concentration until approximately 17 ft bgs (i.e., within groundwater). The DELCD signal begins to taper off after 36 ft bgs. Field PID reading recorded 72.3 ppmv at 7 to 8 ft bgs, 1,030 ppmv at 17 to 18 ft bgs, 1,210 ppmv at 26 to 27 ft bgs, and 1,310 at 33 to 34 ft bgs. The highest impact in this area is within the saturated zone. The shallow impacted soil appears to remain confined within a narrow interval (per MIP response) between 7 and 8 ft bgs. Additionally, the concentration in this soil interval is much smaller than observed in the saturated soil. **These results indicate the source of contamination in this area is from the saturated zone and historical releases that have been excavated during IRA in 1997, for example, up to 16 ft bgs.**

Concentrations of TCE and MC exceed the theoretical threshold for presence of implied DNAPL at this location. This location will continue to contribute contamination to groundwater for the foreseeable future.

TCE DNAPL is indicated to be present between 26 and 34 feet bgs. ICT 12D downgradient from 18CPT27 is 33.75 feet bgs and ties into the Wilcox clay. Wilcox clay at 18CPT27 is present

between a depth of 23.5 and a depth of 34.5 feet bgs as indicated by both the CPT and geologist logs. Therefore, the presence of DNAPL at this location is associated with mostly clay and silty clay soil. The soil was described as stiff to very stiff but moist. Fine to medium wet sand was present below 34.5 feet bgs. Since the presence of DNAPL is implied to a depth of up to 34 feet bgs, which is very close to the interface between the confining clay and Wilcox sand, it is possible that DNAPL migration vertically downward and then laterally downgradient might occur. A discrete groundwater sample collected from the Wilcox sand at a depth of 63 to 64 feet bgs at location 18CPT10 downgradient from 18CPT27 indicated the presence of TCE at 33.1 ug/L. Groundwater data from 18CPTMW10SW in the upper Wilcox Formation reported 23.9 ug/L TCE. Methylene chloride was non-detect in both samples. These results indicate that some leakage of TCE is occurring from the shallow zone to the Wilcox Formation.

While methylene chloride concentration in 18CPT27 at a depth of 26 to 27 feet bgs implied the presence of methylene chloride DNAPL, methylene chloride at a depth of 33 to 34 feet bgs in the soil was below the saturation level. This indicates that methylene chloride DNAPL is localized in the upper portion of the clay. While methylene chloride was present in the soil at high concentrations, the concentration of methylene chloride in groundwater in the Wilcox Formation downgradient of 18CPT 27 as measured in 18CPTMW10SW and discrete water sample at 18CPT10 63 to 64 feet bgs was non-detect, implying that methylene chloride is tightly held in the clay soil and is not migrating to groundwater in this area of the site.

3.2.5 Potential Contaminant Bypass of ICTs and Liners

Analysis of contaminant distribution in the soil samples and groundwater samples along with CPT and MIP data at 18CPT09, 18CPT10, and 18CPT12 are assessed to analyze whether the CoCs migrate past the ICTs and associated liner in the western and northwestern boundaries of the site.

3.2.5.1 18CPT09 Location

Saturation occurs at a depth of approximately 8.5 ft bgs. Four discrete soil samples were collected from this location. The concentrations in the unsaturated and saturated zones, the DECLD results, and shallow groundwater fluctuations indicated that perchlorate appears to have been sourced from the ground surface at this location and is not associated with groundwater migration from onsite through the ICT and liners. TCE appears to be migrating with groundwater and was detected in soil samples at a depth of 12 to 13 ft bgs and 16 to 17 ft bgs. Very little TCE was observed from the soil sample at a depth of 21 to 22 ft bgs. DELCD results corroborate the soil concentrations.

MIP FID data indicated the presence of contamination at a depth between 36 and 40 ft bgs. At this location, a clay layer doesn't exist with coarse-grained material identified below approximately 13 ft bgs to 48 ft bgs (CPT log terminus). Therefore, there appears to be no potential for impedance to migration of CoCs in this area of the site in a vertical and lateral direction. ICTs 12E and 13A are the two closest ICTs in the area of the site. ICT 12E is 32.25 ft bgs and ICT 13A is 28.17 ft bgs. These ICTs do not tie into a clay layer and groundwater migration below the ICTs could continue to occur under observed gradient conditions that continue to occur in an outward direction even during groundwater extraction. While little contamination was observed in the soil at 18CPT09 (21 to 22 ft bgs), **migration of**

contaminants from on-site to off-site below and between the ICTs (a gap exist between ICT 12E and ICT 13A) could continue to occur with little impedance.

3.2.5.2 18CPT10 Location

Saturation occurs at a depth of approximately 12.5 ft bgs based on gauging data of MW-9 in May 2013. Wilcox clay occurs at depth of 27 ft bgs. Four discrete soil samples were collected from this location. All four samples were from within the saturated zone. All four samples collected between 17 ft bgs and 29 ft bgs contain CoCs (TCE and perchlorate) with increasing concentration with depth. MIP logs identify the presence of CoCs only below 18 ft bgs (saturated zone). The lack of presence of contamination in the unsaturated zone implies the source of contamination at this location is from groundwater.

ICT 12D is the closest ICT to 18CPT10. ICT 12D is 33.75 ft bgs. The ICT ties into a Wilcox clay which appears to be present below 27 ft bgs to at least 30 ft as identified in the CPT and geologist logs. Therefore, the ICT if effective should prevent migration of CoCs across the ICT. The presence of an impermeable liner, if intact, should also provide protection from migration of groundwater across the ICT. Therefore, it is believed that the contamination in MW-9 occurred prior to installation of ICT system. Historical groundwater concentrations for TCE also corroborate the presence of contamination (11,000 ug/L TCE and 5,900 ug/L MC) in shallow groundwater in MW-9 since September 1988 (i.e., prior to installation of ICTs). Therefore, migration of contaminants across the ICT should be impeded but the presence of contaminants downgradient of the ICT is historically present. The presence of the liner prevents extraction of contaminants on the downgradient side of the ICT.

3.2.5.3 18CPT12 Location

Saturation occurs at a depth of approximately 17 ft bgs based on gauging data of MW-7 un May 2013. Wilcox clay occurs at depth of 19 ft bgs. Four discrete soil samples were collected from this location. One sample was collected from the unsaturated soil and three from within the saturated zone. TCE and perchlorate was detected in all four samples but the concentrations increased with depth and the saturated samples contained much higher concentration than the unsaturated sample (Table 3-6). The MIP logs corroborate this observation with signals reported only within the saturated zone below 19 ft bgs. This implies that groundwater is the source of contamination at this location.

ICTs 12A and 12B are the two closest ICTs in the area of the site. ICT 12A is 31.5 ft bgs and ICT 12B is 35.25 ft bgs. These ICTs tie into the clay layer identified at a depth of 20.5 ft bgs to at least 31 ft bgs according to the CPT and geologist logs. Therefore, the ICT if effective should prevent migration of CoCs across the ICT. The presence of an impermeable liner, if intact, should also provide protection from migration of groundwater across the ICT. Historical groundwater concentrations for TCE (7,600 ug/L TCE and 250 ug/L MC) also corroborate the presence of contamination in shallow groundwater in MW-7 since 1996 (i.e., prior to installation of ICTs). Therefore, migration of contaminants across the ICT should be impeded but the presence of contaminants downgradient of the ICT is historically present. The presence of the liner prevents extraction of contaminants on the downgradient side of the ICT.

3.2.6 Geotechnical Data

Geotechnical data were collected at 18CPT01 (16-17', 37-37.5', and 40.5-41'), 18CPT08 (12.5-13', 22-23', and 32-32.5'), 18CPT10 (16-17' and 18-19'), and 18CPT23 (25-26'). The soil samples were analyzed for porosity by ASTM D2434, grain size distribution by ASTM D422-63, specific gravity by ASTM D854-06, TOC by SM20 5310, and permeability by ASTM D5084-03. No geotechnical soil samples were obtained below 50 ft because the soil below this depth is primarily fine sand. The geotechnical data are presented in **Appendix G**.

3.2.6.1 Grain Size Distribution

Grain size analysis was conducted on all 9 samples. The results provided soil classification. Soil classification from grain size analysis was compared to data collected from CPT logs for the tested intervals. The results summarized in **Table 3-**7 present a good correlation between CPT logs and grain size distribution results. Out of the 9 samples, 8 data pair matched each other very well. The one exception occurred for sample 18CPTMW10 16-17 ft bgs where the CPT log identified the soil as sand to silty sand whereas the grain size analysis identified the soil as silty clay. The geologist log identified the soil interval from 16 to 17 ft bgs as silty clay, which is similar to the grain size analysis. However, it was observed from the geologist log that the interval between 17 and 17.5 ft bgs is fine sand, which is similar to the CPT log. Therefore, it is possible that either the CPT log or the geologist erred in identifying the correct depth interval bgs by several inches that would resulted in this erroneous output.

3.2.6.2 Permeability

A flexible wall permeameter maintaining a constant head was used to analyze the samples' permeability. Samples 18CPTMW01DW 16-17 ft bgs, 37 to 37.5 ft bgs, and 40.5 to 41 ft bgs were analyzed by this method. The hydraulic conductivity of the samples were 2.00 E-7 centimeters per second (cm/sec) for the sandy silt sample at 18CPTMW01DW 37 to 37.5 ft bgs; 1.74 E-08 cm/sec for the silty clay sample at 18CPTMW01DW 40.5 to 41 ft bgs; and 1.50 E-08 cm/sec for the silty clay sample at 18CPTMW10DW 16 to 17 ft bgs. These results indicate very low permeability soils. The sandy silt sample (18CPTMW01DW 37 to 37.5 ft bgs had an order of magnitude higher permeability than the silty clay samples (18CPTMW01 40.5 to 41 ft bgs and 18CPTMW10 16 to 17 ft bgs). **Table 3-8** presents a summary of these results.

3.2.6.3 Specific Gravity, Bulk Density, Porosity, TOC, and % Solids

The specific gravity, bulk density, and porosity values are typical of the type of soil (unconsolidated silty, clayey, sandy soils). The samples contain low content of organic matter fraction, ranging between 0.0005 and 0.003. The solids content of the samples ranged between 79% and 86% with higher values reflecting drier conditions in the shallower soil intervals and lower values reflecting more moist conditions in deeper soil intervals. The soil tends to be wetter with depth at each location coinciding with the presence of groundwater at greater depths.

3.3 Outside of the Containment Area to the Southwest

The source of contamination outside of the containment area to the southwest and the presence of contaminants in the vadose zone in this area of the site were evaluated by collection of

discrete soil and groundwater data, collection of CPT/MIP data, and installation of Wilcox Formation wells adjacent to MW-7 and MW-9.

Specifically, to complete this objective, the following tasks were accomplished;

- Conducted CPT/MIP at 18CPT09, 18CPT10 through 18CPT12.
- Conducted soil sampling at 18CPT09 (6-7', 12-13', 16-17', and 21-22'), 18CPT10 (17-18', 19-20', 27-27.5, and 28-29'), and 18CPT12 (13-14', 18-19', 22-23', and 28-29').
- Installed wells in the Wilcox Formation (upper & lower) at 18CPT10 (adjacent to MW-9) and 18CPT12 (adjacent to MW-7).
- Collected groundwater samples from new and existing wells.

Information pertaining to locations 18CPT09, 18CPT10, and 18CPT12 was discussed in **Section 3.2.5**. The general conclusion was that contaminants present to the southwest of the site appear to have been present prior to installation of the ICTs. The area near the western corner of the site where the clay layer is absent appears to allow migration of CoCs past the ICTs. However, the area along the southwestern boundary prevents migration of CoCs past the ICTs. CoCs detected in MW-7 and MW-9 are related to historical presence of CoCs in this area of the site prior to installation of ICTs based on the presence of high TCE concentrations in these wells prior to 1997. To complete the assessment of CoCs presence and source in this area of the site, the data from 18CPT11 is discussed below, along with groundwater data from the new wells installed at 18CPT10 and 18CPT12.

3.3.1 18CPT10 Location

Two new wells were installed at this location within the Wilcox aquifer: 18CPTMW10SW in the upper Wilcox Formation with a screened interval between 43 and 52.5 ft bgs and 18CPTMW10DW in the lower Wilcox Formation with a screened interval between 88.8 and 98.3 ft bgs. These wells are co-located wells with MW-9 installed previously in the shallow zone. MW-9 contains 320 ug/L perchlorate, 2,400 ug/L TCE, < 5 ug/L MC, and 205 ug/L cis-1,2-DCE. Metals did not exceed their MCLs except for chromium at a concentration of 0.194 mg/L. 18CTPMW10SW contains 16.6 ug/L perchlorate, 23.9 ug/L TCE, < 0.5 ug/L MC, and < 0.5 ug/L cis-1,2-DCE. Metals did not exceed their MCLs. 18CPTMW10DW contains < 0.2 ug/L perchlorate, 7.56 ug/L TCE, < 0.5 ug/L MC, and < 0.5 ug/L cis-1,2-dichloroethene. Metals did not exceed their MCLs. Although, there is a thick fine-grained layer at this location (e.g., between 18 and 30 ft), there is slight downward migration of TCE and perchlorate into the Wilcox formation at this location.

3.3.2 18CPT12 Location

Two new wells were installed at this location within the Wilcox aquifer: 18CPTMW12SW in the upper Wilcox Formation with a screened interval between 42.5 and 52.0 ft bgs and 18CPTMW12DW in the lower Wilcox Formation with a screened interval between 90 and 99.5 ft bgs. These wells are co-located wells with MW-7 installed previously in the shallow zone. MW-7 contains 37,500 ug/L perchlorate, 2,690 ug/L TCE, < 12.5 ug/L MC, and 22.2 ug/L cis-1,2-DCE. Metals did not exceed their MCLs except for chromium at a concentration of 1.34 mg/L. 18CTPMW12SW contains < 0.2 ug/L perchlorate, 4.31 ug/L TCE, 0.319 ug/L MC, and < 0.5 ug/L cis-1,2-DCE. Metals did not exceed their MCLs except for arsenic at a concentration of

0.0125 mg/L. 18CPTMW12DW contains 0.385 ug/L perchlorate, < 0.5 ug/L TCE, < 0.5 ug/L MC, and < 0.5 ug/L cis-1,2-dichloroethene. Metals did not exceed their MCLs. Although, there is a thick fine-grained layer at this location (e.g., between 20.5 and 37.5 ft), there is slight downward migration of TCE, MC, and perchlorate into the Wilcox formation at this location. Arsenic in the Wilcox Formation is discussed in Section 3.7.

3.3.3 18CPT11 Location

Saturation occurs at a depth of 15 ft bgs. No discrete soil or groundwater samples were collected at this location. CPT data indicated the presence of fine-grained soil between 18 and 35 ft bgs below which transitions to coarse-grained soil to 40 ft bgs (boring terminus). MIP results indicated the presence of contamination at approximately 17 ft bgs to approximately 23 ft bgs, below which tapering of the signals occurred to 25 ft bgs and no MIP response was observed below 25 ft bgs. The depth of observation of the MIP signal is within the saturated zone. Groundwater results from MW-8, located adjacent to 18CPT11, indicate the presence of TCE at 907 ug/L, 1,2-dichloroethane at 19.5 ug/L, cis-1,2-DCE at 5.95 ug/L, and MC at 0.351 ug/L. Perchlorate was reported at 72,000 ug/L. Metals did not exceed their MCLs. TCE concentrations in December 1996 prior to installation of the extraction system in MW-8 was 7,630 ug/L. The source of contamination at this location is contaminant migration with groundwater from the site that occurred prior to ICT extraction system installation in 1997.

3.4 Outside of the Containment Area to the Southeast

Contaminant levels are unknown and insufficient wells are present to adequately monitor groundwater conditions to the southeast area of the site. To address this concern, the following activities were conducted:

- Conducted CPT/MIP at 18CPT13, 18CPT14, 18CPT22, and 18CPT24.
- Installed wells in the shallow water-bearing zone at locations 18CPT14, 18CPT22, and 18CPT24.
- Collected groundwater samples from new and existing wells.

A discussion of these results follows.

3.4.1 18CPT13 Location

Saturation occurs at a depth of approximately 25 ft bgs. The geologist log at this location indicates the presence of silty clay soils to 5 ft bgs, underlain by 3 ft of fine sand, below which is 3 ft of silty clay. Between 11 and 26.9 ft bgs silt to clayey sand is present with the exception of one ft interval between 12.5 and 17 ft bgs where the soil was predominantly silty clay to clayey silt. Silty clay is present between 26.9 and 27.5 ft bgs, underlain to 30 ft bgs with fine sand, which transitions into silty/clayey fine sand to 38 ft bgs. Silty clay is present between 38 and 40 ft bgs, underlain by silty fine sand to 41.5 ft bgs. Fine sandy clay is present between 41.5 to 45 ft bgs where the boring was terminated.

Four discrete soil samples were collected from this location. One sample was collected from the unsaturated soil at 18-19 ft bgs and other three soil samples from within the saturated zone. Very low concentrations of TCE were reported in the saturated soil samples only (maximum concentration = 13.8 ug/kg at 35 to 36 ft bgs). These low concentrations of VOCs are reflected in

MIP results, showing little to no response. Higher perchlorate concentrations were reported in the unsaturated and saturated zones but the unsaturated zone concentration was 1/5th the concentrations in the saturated zone (1,030 ug/kg at 18-19 ft bgs versus 5,400 ug/kg at 27.5- 28.5 ft bgs), implying the source of perchlorate is from groundwater, noting that the unsaturated soil samples is at a depth of 18-19 ft bgs which is well within the smear zone of groundwater fluctuations. Perchlorate concentrations increased slightly with depth within the coarse-grained soil but decreased slightly within the upper portion of the Wilcox clay layer at a depth of 43 to 44 ft bgs to a concentration of 4,650 ug/kg. **These concentrations indicate the migration of perchlorate to this area of the site with groundwater.**

3.4.2 18CPT14 Location

Saturation occurs at a depth of approximately 28 ft bgs. Log for 18CPT14 is primarily fine-grained soil to a depth of 23.5 ft bgs where a coarse-grained interval to 25.5 ft bgs is observed, below which the soil tends to be mostly fine-grained to approximately 38 ft where the Wilcox clay is observed. No discrete soil samples were collected from this location but MIP data was collected. MIP data indicated the absence of surface contamination. FID and DELCD data indicated the presence of VOCs within the interval between 24 and 30 ft bgs; which is within the groundwater smear zone. A shallow zone monitoring well (18CPTMW14) was installed at this location with a screened interval between 23.9 and 33.4 ft bgs. A groundwater sample was collected and the results indicated the presence of 1,560 ug/L of perchlorate, 413 ug/L of TCE, 0.448 ug/L of MC, and < 0.5 ug/L of cis-1,2-dichloroethene.

These concentrations are in par with the detection of 1,510 ug/L of perchlorate, 213 ug/L of TCE, 0.531 ug/L of MC, and 2.13 ug/L of cis-1,2-dichloroethene in MW-22, an upgradient well which was influenced by treated groundwater reinjection in ICT 9 that was conducted between September 2007 and May 2012.

Barium was reported at 8.74 mg/L and arsenic at 0.0212 mg/L, both above their respective MCLs. Barium concentration in 126 located to the south of 18CPTMW14 is 8.75 ug/L, **indicating the presence of barium at elevated concentrations in this area of the site. These concentrations indicate the migration of CoCs to this area of the site with groundwater.**

3.4.3 18CPT22 Location

Saturation occurs at approximately 19 ft bgs. CPT log indicated the presence of fine-grained soil in the top 3 ft which is underlain by coarse-grained soil to a depth of approximately 11.5 ft bgs, below which Wilcox clay is present to a depth of 21 ft bgs. The Wilcox Formation is identified below 21 ft bgs although a layer of clayey silt to silty clay is identified at a depth between 28 and 30.5 ft bgs. No discrete soil samples were collected from this location but MIP data was collected. MIP data indicated the absence of VOC contamination with the exception of slight weak peaks of DELCD between 12 and 15 ft bgs and very low PID response between 12 and 24 ft bgs; which occurred within the groundwater smear zone. A shallow zone monitoring well (18CPTMW22) was installed with a screened interval between 9 and 28.5 ft bgs, which ties into the clayey silt/silty clay interval at this depth. A groundwater sample was collected and the results indicated the presence of 118,000 ug/L of perchlorate, 66.4 ug/L of TCE, < 0.5 ug/L of MC, and 0.407 ug/L ("J"-flagged) of cis-1,2-dichloroethene. No metals above the MCL were reported. **These concentrations indicate the migration of primarily perchlorate to this area of the site.**

3.4.4 18CPT24 Location

Saturation occurs at approximately 27 ft bgs. The CPT log indicated the presence of layers of fine-grained and coarse-grained soil from ground surface to a depth of approximately 35.5 ft bgs below which the Wilcox Clay was identified to a depth of 45 ft bgs (boring terminus). No discrete soil samples or MIP data were collected at this location. A shallow zone monitoring well (18CPTMW24) was installed at this location with a screened interval between 22 and 31.5 ft bgs. A groundwater sample was collected and the results indicated the presence of 710 ug/L of perchlorate, 68.8 ug/L of TCE, < 0.5 ug/L of MC, and 0.53 ug/L ("J"-flagged) of cis-1,2-dichloroethene. Barium was reported at 8.63 mg/L and arsenic at 0.028 mg/L, both above their respective MCLs. Barium as reported at 5.46 mg/L and arsenic at 0.0169 mg/L in C-08 to the east of 18CPTMW24. TCE was also detected in C-08 at 13.2 ug/L but no perchlorate was detected in this well, assisting in horizontal delineation of perchlorate and to some extent TCE. **Barium and arsenic in this area of the site appear to be present above the MCLs.**

Based on the data collected from this investigation, it appears that perchlorate has migrated to the southeast at higher concentrations than previously realized from data collected from monitoring well 102 or MW-20. **Monitoring for perchlorate and TCE concentrations in monitoring well 126 and C-09 in the shallow zone and C-01 and C-10 in the Wilcox Formation is recommended.**

3.5 Outside of the Containment Area to the Northwest

To determine the possible migration of perchlorate plume under Harrison Bayou, a monitoring well was placed at 18CPT16 using a HSA drilling (18CPTMW16). CPT was not conducted as planned at this location due to lack of access. However, the soil was logged by a geologist using Geoprobe™ soil samples. The well (18CPTMW16) was screened between 15.0 and 34.5 ft bgs and was tied into the Wilcox clay observed at a depth of 32 ft bgs. The monitoring well, 18CPTMW16, was sampled and no perchlorate or VOCs were detected in this well, indicating that **migration of these chemicals beneath Harrison Bayou has not occurred. None of the metals were reported above their MCLs.**

The potentiometric surface map for the shallow zone indicates that the groundwater level in 18CPTMW16 is higher than the elevation of groundwater across Harrison Bayou to the south in monitoring wells 18WW07 and 18WW08. Therefore, the groundwater gradient is such that groundwater from the site will not cross Harrison Bayou but will remain to the south of Harrison Bayou. It is likely that Harrison Bayou creates a hydraulic divide such that groundwater flows towards Harrison Bayou from both sides as depicted in Figure 3-1.

To determine perchlorate distribution outside of containment area toward Harrison Bayou, the following scope was completed:

- Conducted CPT at 18CPT15, 18CPT19, and 18CPT23.
- Completed wells in shallow water-bearing zone at 18CPT19, in the shallow zone and Wilcox Formation at 18CPT15, and within the Wilcox Formation at 18CPT23.
- Obtained hydropunch groundwater samples from 18CTP15 (14-18 ft bgs), (25-29 ft bgs), and (38-42 ft bgs), and one hydropunch groundwater sample at 18CPT19 (30-34').

A discussion of these results follows.

3.5.1 18CPT15 Location

The depth to water from the shallow zone well installed at this location (18CPTMW15) is approximately 12 ft btoc which is approximately 9 ft bgs. This monitoring well was installed between 15.8 and 35.3 ft bgs. Based on stratigraphy, it appears that the screened interval for this well straddles the shallow zone and the Wilcox Formation. However, because there is no separation between the shallow zone and the Wilcox formation at that location, the groundwater well is considered a shallow zone well. No MIP was conducted at this location. CPT log indicates the presence of coarse grained soils for the majority of the boring with the exception of the top 4 ft, a 2-ft interval between 21 and 23 ft bgs, and two stringers less than 0.5 ft each at approximate depths of 34.5 and 35.5 ft bgs, which predominantly contain fine-grained soil. Three discrete water samples were collected from the depth intervals between 14 and 18 ft bgs, 25 and 29 ft bgs, and 38 and 42 ft bgs. The samples contained 2,620 ug/L, 87.5 ug/L, and 6.16 ug/L perchlorate; 1.19 ug/L, < 0.5 ug/L, and < 0.5 ug/L cis-1,2-dichloroethene; 3.53 ug/L, < 0.5 ug/L, and < 0.5 ug/L TCE; 0.776 ug/L, < 0.5 ug/L, and < 0.5 ug/L vinyl chloride; 0.77 ug/L, 0.726 ug/L, and < 0.5 ug/L toluene; and 5 ug/L, 3.38 ug/L, and 2.52 ug/L acetone, respectively. The vertical concentration profile indicates a decrease in concentration with depth and no detection is reported at the 38 to 42 ft bgs interval with the exception of perchlorate at 1.19 ug/L and acetone at 2.52 ug/L. Acetone is considered associated with laboratory contamination. A groundwater sample was collected from the monitoring well and contained 825 ug/L perchlorate, 3.58 ug/L TCE, 0.712 ug/L cis-1,2-DCE, and 0.504 ug/L ("J"-flagged) VC. No metals exceeded their MCLs. **Based on these results, it appears that perchlorate has migrated to this location but primarily in the shallow zone. Based on the vertical concentration profile, it appears that the presence of contaminants in the Wilcox formation is due to vertical contaminant migration. While vertical migration is occurring, the magnitude is not significant as determined by the over two order of magnitude decrease in concentration of perchlorate between 14 and 18 ft bgs and 38 and 42 ft bgs.**

3.5.2 18CPT19 Location

The depth to water from the shallow zone well installed at this location (18CPTMW15) is approximately 26 ft btoc which is approximately 23 ft bgs. No MIP was conducted at this location. CPT log indicates the presence of coarse grained soils from 6 to approximately 19 ft bgs followed by fine-grained soil between 19 and 40 ft bgs with limited stringers of coarse-grained soil between 30.5 and 33 ft bgs. A discrete water sample was collected from the depth interval between 30 and 34 ft bgs. The sample contained 10.1 ug/L perchlorate but no VOCs. A groundwater sample was collected from the shallow groundwater and contained 13.2 ug/L perchlorate and VOCs. No metals exceeded their MCLs. **Based on these results, it appears that perchlorate has migrated to this location at low concentrations.**

3.5.3 18CPT23 Location

The depth to water from the shallow zone well installed at this location (18CPTMW23) is approximately 9 ft btoc which is approximately 6 ft bgs. This monitoring well was screened between 21 and 30.5 ft bgs. Based on stratigraphy, it appears that the screened interval for this well is in the Wilcox Formation. However, because there is no separation between the shallow zone and the Wilcox formation at this location, the groundwater well is considered to communicate with either the shallow zone or the Wilcox Formation. No MIP was conducted at

this location. CPT log indicates the presence of coarse grained soils for the majority of the boring with the exception of the top 2 ft, an interval between 14 and 19 ft bgs, two stringers less than 0.5 ft each at approximate depths of 30.5 and 31.5 ft bgs, which predominantly contain fine-grained soil, and additional stringers of fine-grained soil between 44 and 47 ft bgs. A discrete water sample was not collected from this borehole but a groundwater sample was obtained from the monitoring well. The results indicated the presence of 8,950 ug/L of perchlorate, 3,100 ug/L TCE, 65.6 ug/L cis-1,2-DCE, 2.98 ug/L VC, 197 ug/L 1,2-DCA, 9.18 ug/L 1,1-DCE, and a few other lower concentrations VOCs. No metals exceeded their MCLs. **Based on these results, it appears that perchlorate and VOCs have migrated to this location. The horizontal and vertical migration of CoCs is not well defined at this location due to the absence of a groundwater monitoring well at a downgradient location (closer to Harrison Bayou) and a monitoring well screened within a deeper zone of the Wilcox Formation. Therefore, a shallow monitoring well is proposed closer to Harrison Bayou and a lower Wilcox well is proposed at 18CPTMW23.**

Based on these results, the distribution of perchlorate and VOCs has been determined to the northwest of the site with the exception of the area in the vicinity of 18CPTMW23.

3.6 Outside of the Containment Area to the Northeast

To determine CoC plume extent along the dominant groundwater flow direction to the northeast, the following scope was completed:

- DPT investigation at 18CPT17 and 18CPT18.
- Hydropunch groundwater samples at 18CPT17 and 18CPT18.
- Installation of a well in the shallow water-bearing zone at 18WW22, co-located with C-04/C-04A, and a well in the shallow water-bearing zone near 18CPT18 (monitor well 18CPTMW18).

A discussion of these results follows.

3.6.1 18CPT17 Location

The geology at this location was logged by a field geologist. The soil from ground surface to 15 ft bgs was predominantly fine-grained. Silty fine sand was identified between 15 and 23 ft bgs, underlain by clay and silty clay to 47.5 ft bgs, which comprise the Wilcox Clay. Silty fine sand with thin stringers of clay was observed between 47.5 and 50 ft bgs. A hydropunch groundwater sample was collected from 18CPT17 at a depth of 30 and 34 ft bgs. The sample did not contain VOCs, although the reporting limits were raised by a factor of 100 due to sample dilution. Due to insufficient water in the formation, perchlorate analysis was not conducted.

3.6.2 18CPT18Location

The geology at this location was logged by a field geologist. The soil from ground surface to 16 ft bgs was predominantly fine-grained with fine sand laminations observed at 12 ft bgs. Silty fine sand was identified between 16 and 19 ft bgs intermixed with a 0.3 ft clay layer. Clay was observed at 19 ft bgs to 22.5 ft bgs. The soil was observed to be wet at 22.5 ft bgs. Between 22.5 ft bgs and 34 ft bgs layers of clay, fine sand, silty clay, and silty fine sand were observed. These were underlain by clay between 34 and 41 ft bgs, which comprises the Wilcox clay, and silty fine

sand between 41 and 44 ft bgs. Below 44 ft bgs, fine to medium sand was observed. Three hydropunch groundwater samples were collected from 18CPT18 at depths of 31 and 35 ft bgs, 44 and 48 ft bgs, and between 45 and 49 ft bgs. The samples contained 1.4 to 12.8 ug/L of perchlorate and no VOCs with the exception of acetone and benzene. Acetone was reported at 5.52 ("J"-flagged) and 6.51 ug/L ("J"-flagged) in two samples, but it is considered associated with laboratory contamination. Benzene was reported in the sample collected at 31 to 35 ft bgs at 0.151 ug/L ("J"-flagged) and in the sample collected at 45 to 49 ft bgs at a concentration of 0.127 ug/L ("J"-flagged). Both values are below the MCL. A groundwater sample was collected from the shallow zone well (18CPTMW18) which identified the presence of perchlorate at 0.602 ug/L and carbon disulfide at a concentration of 0.833 ug/L ("J"-flagged). The presence of carbon disulfide is not believed to be associated with the site but introduced by the laboratory. The low levels of perchlorate and VOCs below the risk reduction standards provide delineation to the lateral extent of these contaminants. However, arsenic was detected in the well at a concentration of 0.0152 mg/L just above its MCL of 0.01 mg/L.

3.6.3 18WW22 Location

A shallow monitoring well was installed at this location using a HSA drilling technique. The boring was not logged as it is co-located with existing wells C-04 and C-04A which provide lithology at this location. The lithology at this location is very similar to the lithology described for 18CPT18 above. 18WW22 was installed with a screened interval between 27 and 41.5 ft bgs. The depth to water from the shallow zone well installed at this location (18WW22) is approximately 28 ft btoc, which is approximately 25 ft bgs. No CPT or MIP data were collected at this location. The groundwater sample contained 0.234 ug/L ("J"-flagged) perchlorate but no VOCs. All the metals were below their MCLs.

The information collected from this area of the site provided delineation of the extent of CoCs.

3.7 Metals in Shallow Zone Groundwater

This section discusses several metals that are found not to be chemicals of potential concern based on their concentrations in groundwater across the site. These metals are cadmium, hexavalent chromium, mercury, lead, selenium, and silver. This section also discusses other metals that are present at concentrations and locations such that they are considered chemicals of potential concern. These metals are arsenic, barium, and chromium.

3.7.1 Cadmium, lead, mercury, selenium, and silver in Shallow Zone Groundwater

Review of concentrations of cadmium, lead, mercury, selenium, and silver in the monitoring wells and ICTs (collected in March 2013), indicated the following:

- Cadmium: all cadmium concentrations were below the MCL of 0.005 mg/L with the majority of the samples non-detect for cadmium at a detection limit of 0.0006 mg/L. The maximum cadmium concentration was reported in ICT 14A at 0.00255 mg/L.
- Lead: all lead concentrations were below the MCL of 0.015 mg/L with the majority of the samples non-detect for lead at a detection limit of 0.001 mg/L. The maximum lead concentration was reported in ICT 13E at 0.00453 mg/L.

- Mercury: all mercury concentrations were below the MCL of 0.002 mg/L with the majority of the samples non-detect for mercury at a detection limit of 0.0002 mg/L. The only mercury detection was reported in monitoring well 129 at 0.000225 mg/L. ICTs were not analyzed for mercury.
- Selenium: all selenium concentrations were below the MCL of 0.05 mg/L with the majority of the samples non-detect for selenium at a detection limit of 0.01 mg/L. The maximum selenium concentration was reported in monitoring well 109 at 0.0177 mg/L.
- Silver: all silver concentrations were below the MCL of 0.1 mg/L and all of the samples were non-detect for silver at a detection limit of 0.001 mg/L.

Based on the above results, none of the above metals are chemicals of potential concern at the site.

3.7.2 Hexavalent Chromium in Shallow Zone Groundwater

A comprehensive hexavalent chromium analysis program was conducted including all ICTs and eight monitoring wells and none of the samples contained hexavalent chromium above 0.01 mg/L. Several of the samples had total chromium concentrations that exceeded the MCL (4 ICTs and 3 sampled wells (maximum chromium was 1.34 mg/L in MW-7)). **Therefore, hexavalent chromium does not contribute to the total chromium concentration and is not a chemical of potential concern at the site in the shallow zone groundwater.**

3.7.3 Arsenic, Barium, and Chromium in Shallow Zone Groundwater

Arsenic was detected in several monitoring wells above the MCL of 0.01 mg/L. These wells are: 18CPTMW14, 18CPTMW24, C-08, MW19, MW2, MW21, 18CPTMW18, EW01, and ICT 13C. With the exception of MW-19 and ICT 13C, all the wells are located in an area south of the former UEP extending to the south and east of the site. The maximum arsenic concentration was reported in 18CPTMW24 at 0.028 mg/L.

Barium was detected in several monitoring wells above the MCL of 2 mg/L. These wells are: 126, 18CPTMW14, 18CPTMW24, C-08, MW2, MW21, ICT 13D, ICT 14C, and ICT 14E. With the exception of ICT 13D, all the wells are located in an area south of the former UEP extending to the south of the site. The maximum barium concentration was reported in MW-21 at 10.8 mg/L.

Chromium was detected in several monitoring wells above the MCL of 2 mg/L. These wells are: MW2, MW6, MW7, MW9, ICT 11, ICT 12A, ICT 13C, and ICT 13E. The distribution of chromium exceedances appears to concentrate along the site boundaries to the southwest, northwest, and northeast and to the south of the former UEP. The maximum chromium concentration was reported in MW-7 at 1.34 mg/L.

Because arsenic, barium, and chromium are present in several shallow zone wells above the MCL, these metals continue to be considered as chemicals of potential concern in the shallow zone groundwater.

3.8 Metals in Wilcox Formation

Arsenic was detected above the MCL in 18CPTMW12SW (upper Wilcox) at a concentration of 0.0125 mg/L. The concentration of arsenic in 18CPTMW12DW (lower Wilcox) was reported at 0.00319 mg/L, which is below the MCL. Therefore, it doesn't appear that arsenic identified in the upper Wilcox area is migrating downward to the lower Wilcox area. 18CPTMW12SW is co-located with shallow zone monitoring well MW-7. The concentration of arsenic in MW-7 was reported at 0.00412 mg/L. Therefore, the arsenic concentration in 18CPTMW12DW doesn't appear to be sourced from the shallow zone (i.e., MW-7). **The concentration of arsenic in 18CPTMW12SW will be reassessed during future sampling events to validate the concentration reported during this sampling event.**

Chromium was detected above the MCL in 18CPTMW07SW at a concentration of 0.775 mg/L. The concentration of chromium in MW-21 which is a shallow zone well co-located with 18CPTMW07SW had a chromium concentration of 0.0803 mg/L. It doesn't appear that chromium in the upper Wilcox Formation is sourced from the shallow zone at this location. **The concentration of chromium in 18CPTMW07SW will be reassessed during future sampling events to validate the concentration reported during this sampling event.**

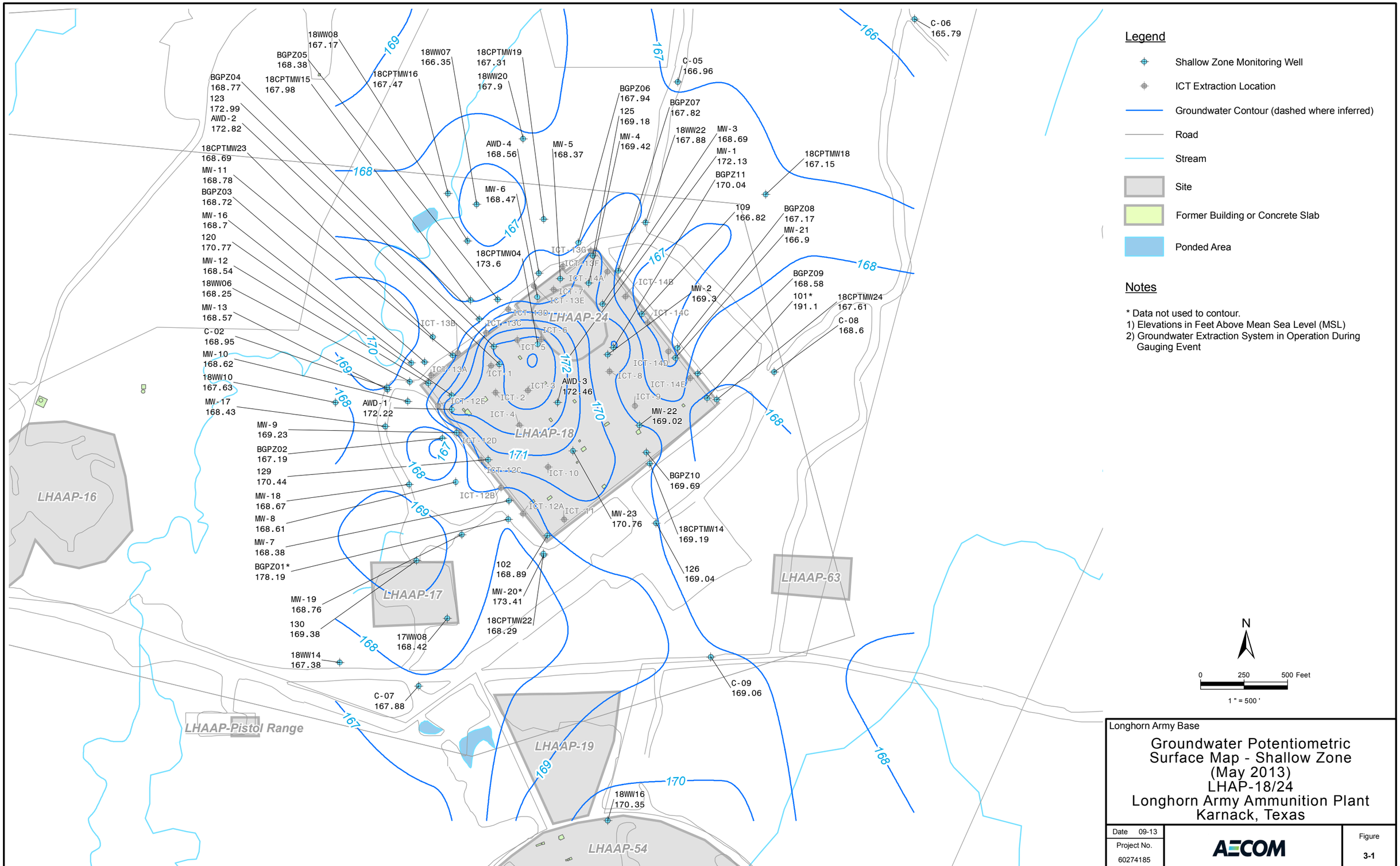
No MCL exceedances for barium, cadmium, lead, mercury, selenium, and silver were observed in the Wilcox Formation. These chemicals are not considered chemicals of potential concern within the Wilcox Formation.

3.9 MNA

Groundwater samples from three perimeter wells (MW8 in the southwest, 18WW08 in the northwest, and 18CPTMW18 in the northeast) were collected and analyzed for several MNA parameters. These parameters included dehalococcoides, TCE and vinyl chloride degradation genes, CSIA for TCE and cis-1,2-DCE, degradation gases (ethane, ethene, and methane), ferrous iron, alkalinity, chloride, and sulfate. The results are summarized in Table 3-9. A quality control summary is presented in **Appendix D**. Laboratory analytical reports are provided on a compact disc. These wells were selected because natural attenuation is best suited for dilute concentrations of CoCs, where natural attenuation mechanisms would reduce the concentrations in a reasonable time frame and prevent further downgradient migration.

The results indicated that natural attenuation mechanisms are not occurring. No microbial population or expressive genes were present. CSIA results for TCE did not show enrichment that would be associated with biodegradation, degradation gases were not present, and ferrous concentrations almost indicate not much reduction is occurring. Monitoring well 18CPTMW18 also had positive oxidation reduction potential (ORP) (157 millivolt - mV) and no reduction in alkalinity, indicating absence of anaerobic biodegradation. 18WW08 had a positive ORP (164 mV) but reduced alkalinity with little concentration of ferrous iron, indicating slight anaerobic activity is occurring. Similarly, MW8 had a positive ORP at 298 mV and no discernible bioactivity, although alkalinity in the well appears to have been consumed along with sulfate which is present at much reduced levels. MW8 had the highest contaminant concentration among the three wells. However, the pH in this well is 5.04 standard units, which makes conditions difficult for biological activity.

Based on the above results, current conditions at the site at perimeter locations indicate the lack of occurrence of natural attenuation mechanisms, particularly biodegradation.



Longhorn Army Base

Groundwater Potentiometric Surface Map - Shallow Zone (May 2013) LHAP-18/24 Longhorn Army Ammunition Plant Karnack, Texas

Date 09-13	AECOM	Figure
Project No. 60274185		3-1

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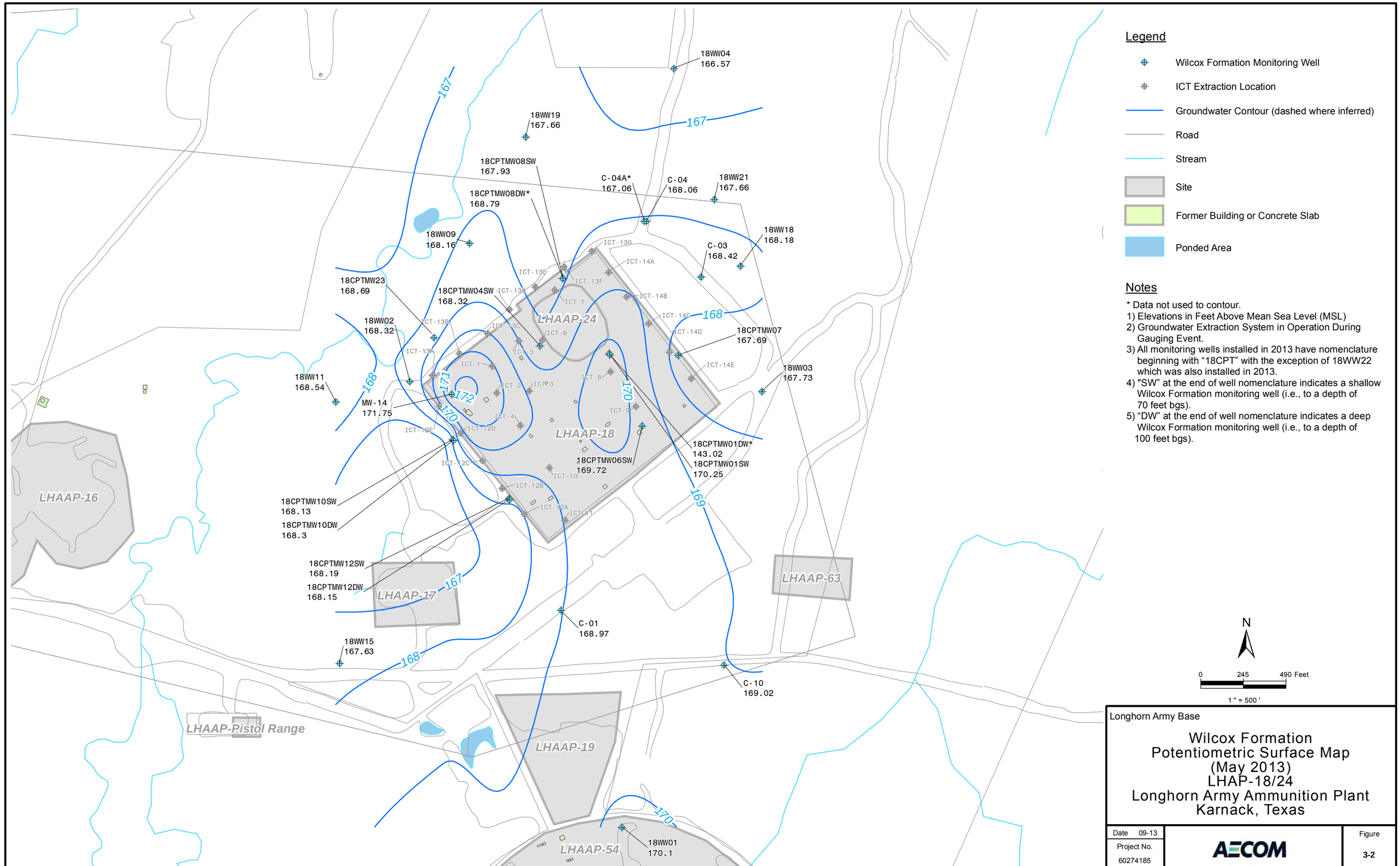
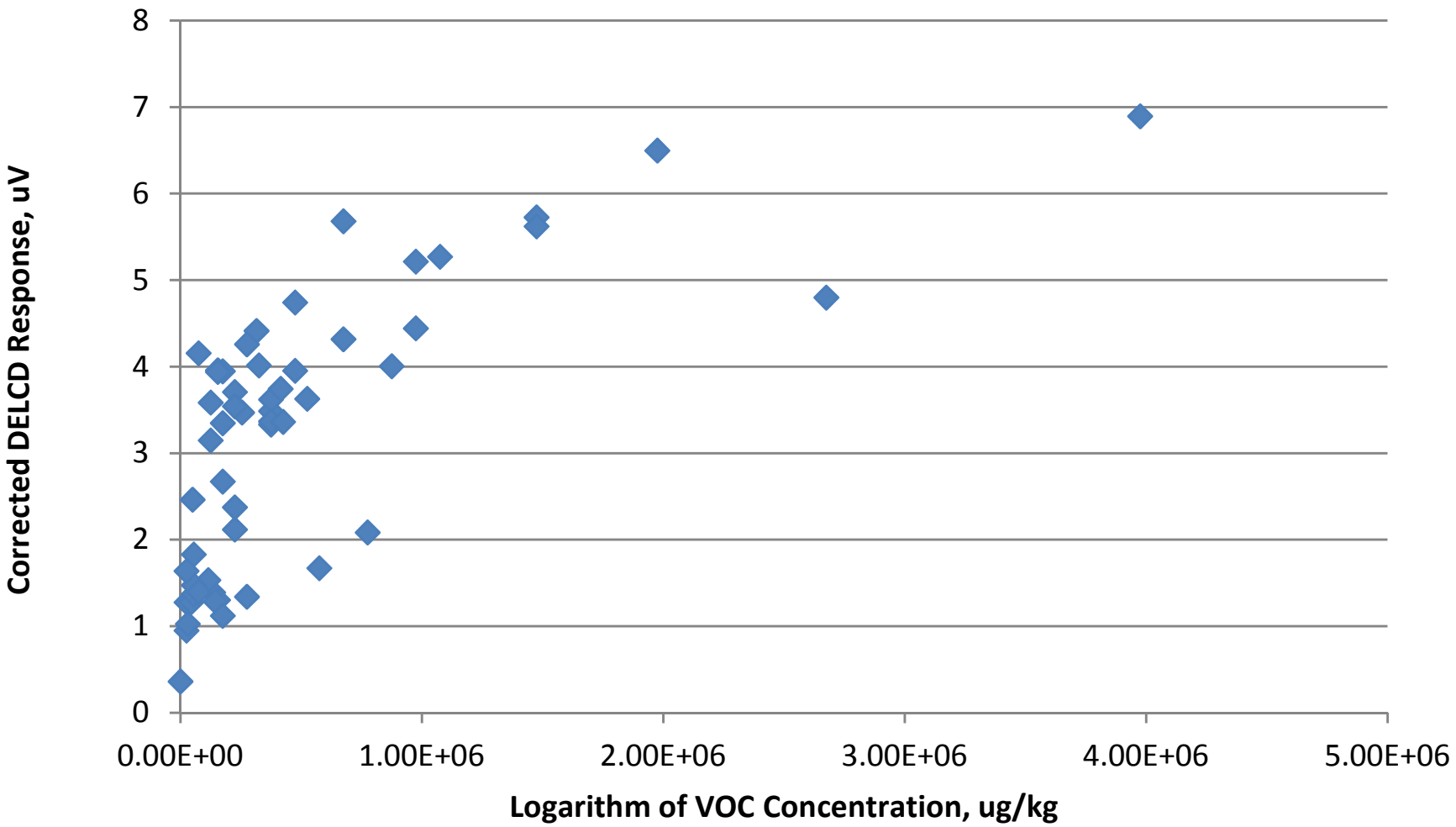


File: W:\work\60263702\GIS\Project\Water_Level_Wilcox_May_June_2013.mxd
Date: Thursday, November 07, 2013 1:54:29 PM

Figure 3-3
DELCD Response in Relation to VOC Concentrations in Soil - All Data



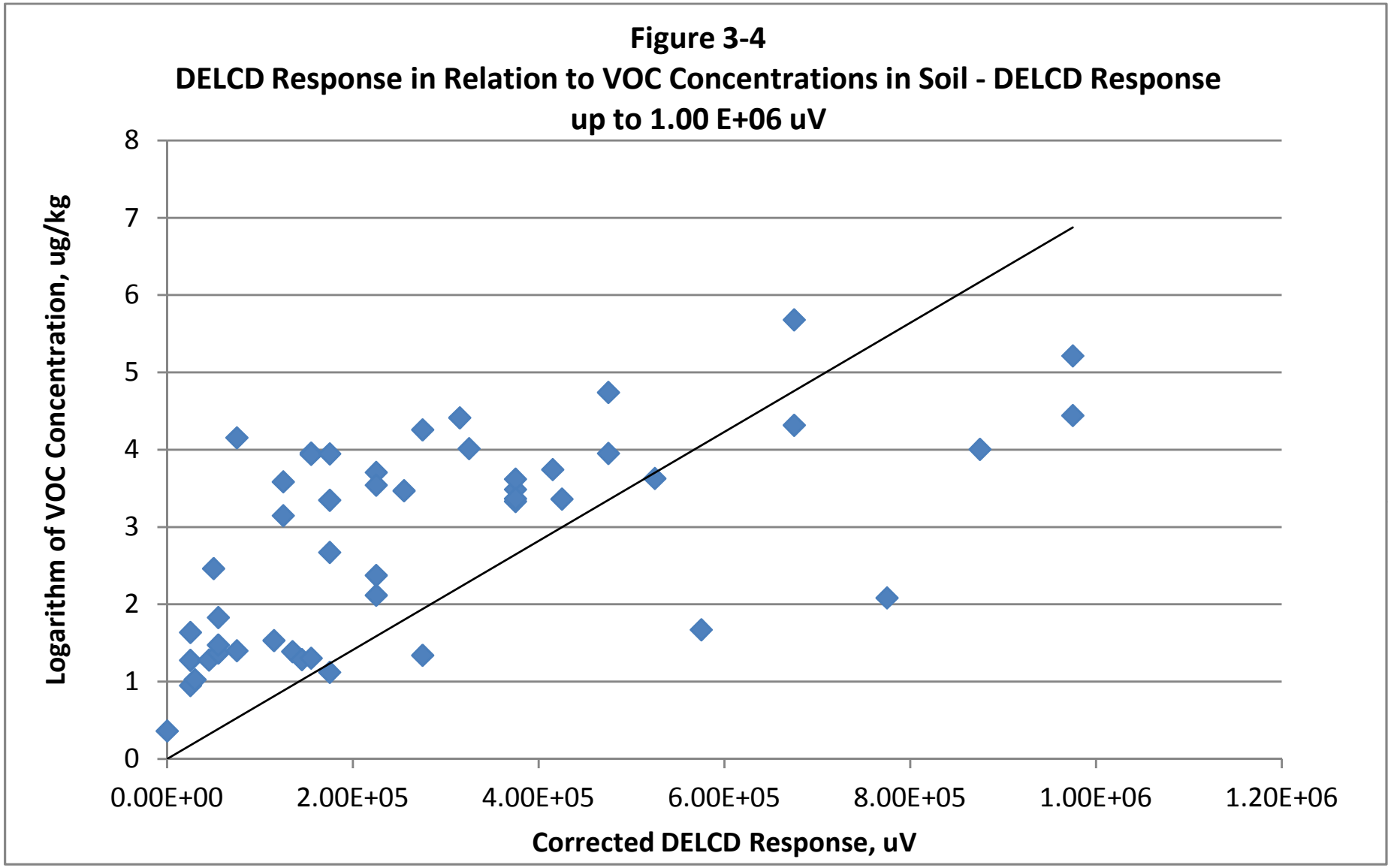
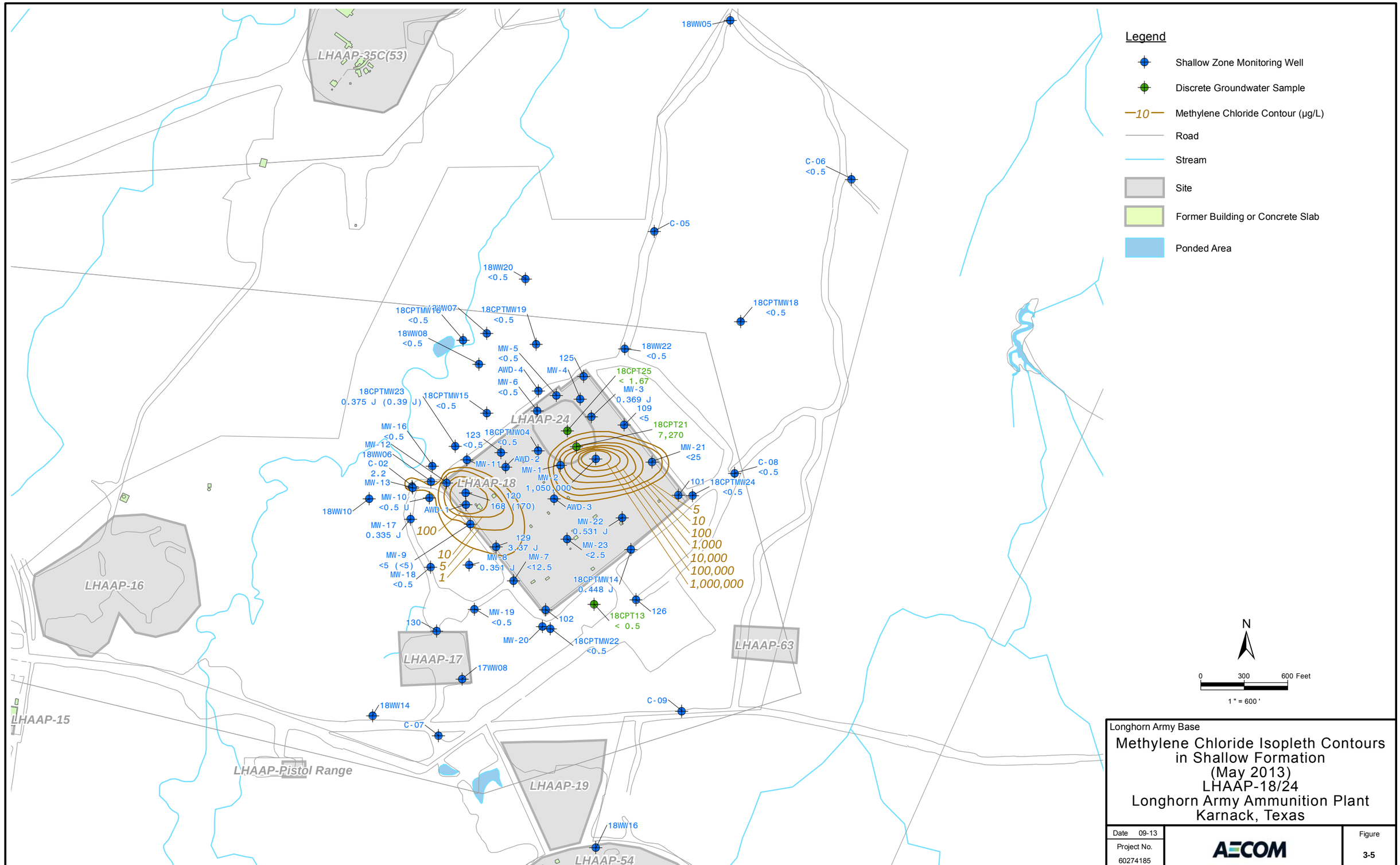


Figure 3-4
DELCD Response in Relation to VOC Concentrations in Soil - DELCD Response up to 1.00 E+06 uV
Logarithm of VOC Concentration, ug/kg
0
1
2
3
4
5
6
7
8
0.00E+00
2.00E+05
4.00E+05
6.00E+05
8.00E+05
1.00E+06
1.20E+06
Corrected DELCD Response, uV



Longhorn Army Base

Methylene Chloride Isopleth Contours in Shallow Formation (May 2013) LHAAP-18/24 Longhorn Army Ammunition Plant Karnack, Texas

Date 09-13	AECOM	Figure
Project No. 60274185		3-5

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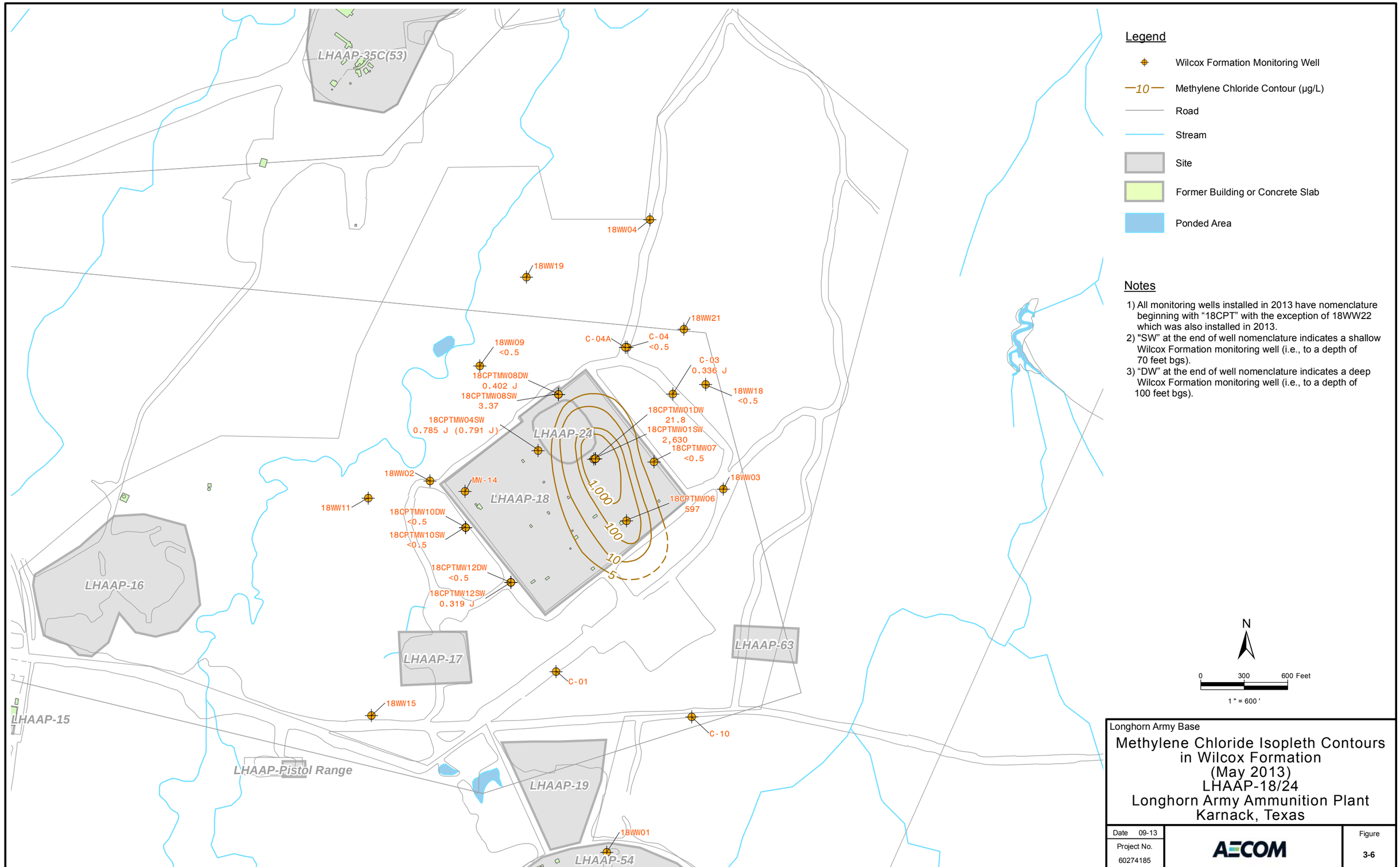

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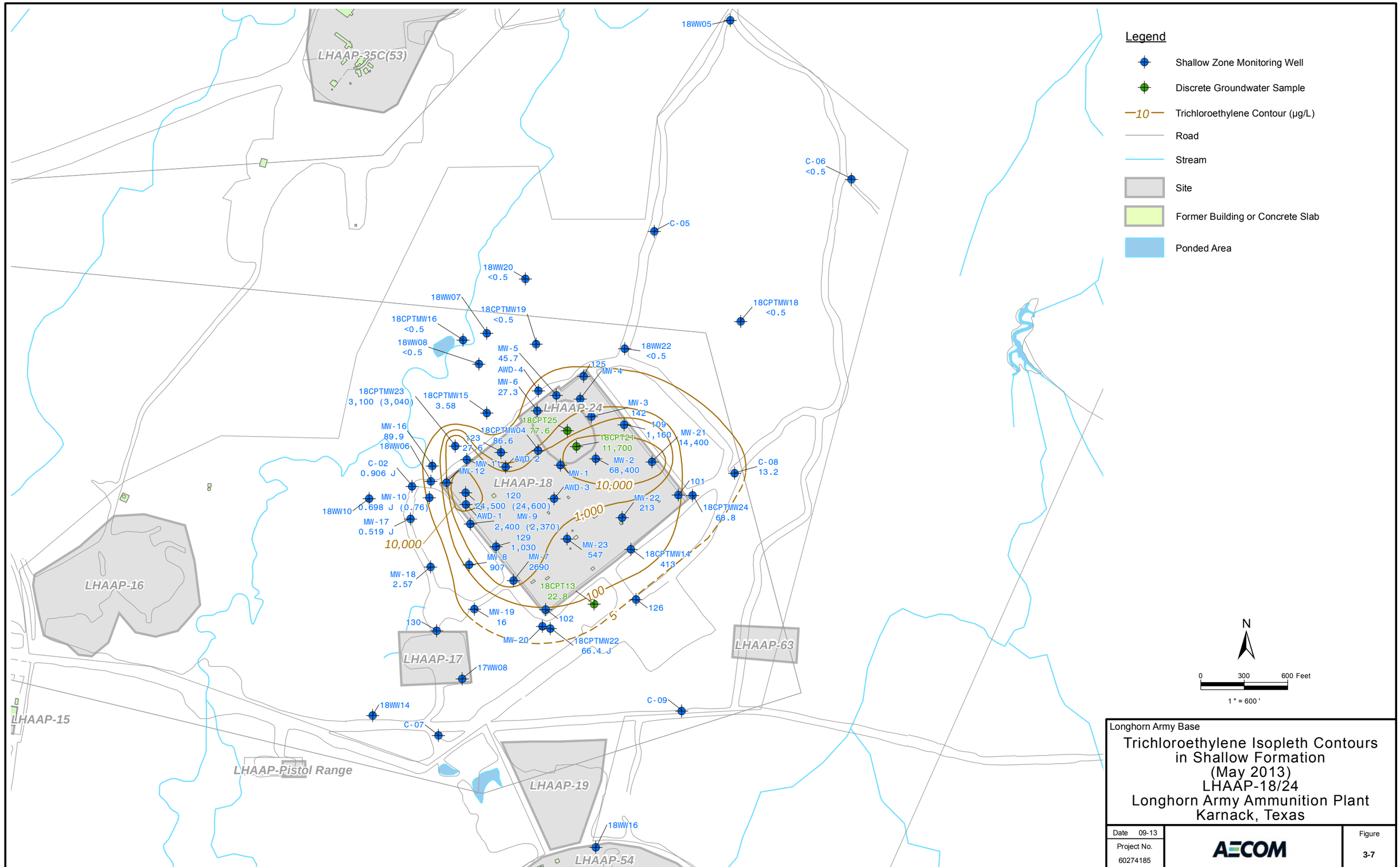

Longhorn Army Base

Trichloroethylene Isopleth Contours in Shallow Formation (May 2013) LHAAP-18/24 Longhorn Army Ammunition Plant Karnack, Texas

Date 09-13	AECOM	Figure
Project No. 60274185		3-7

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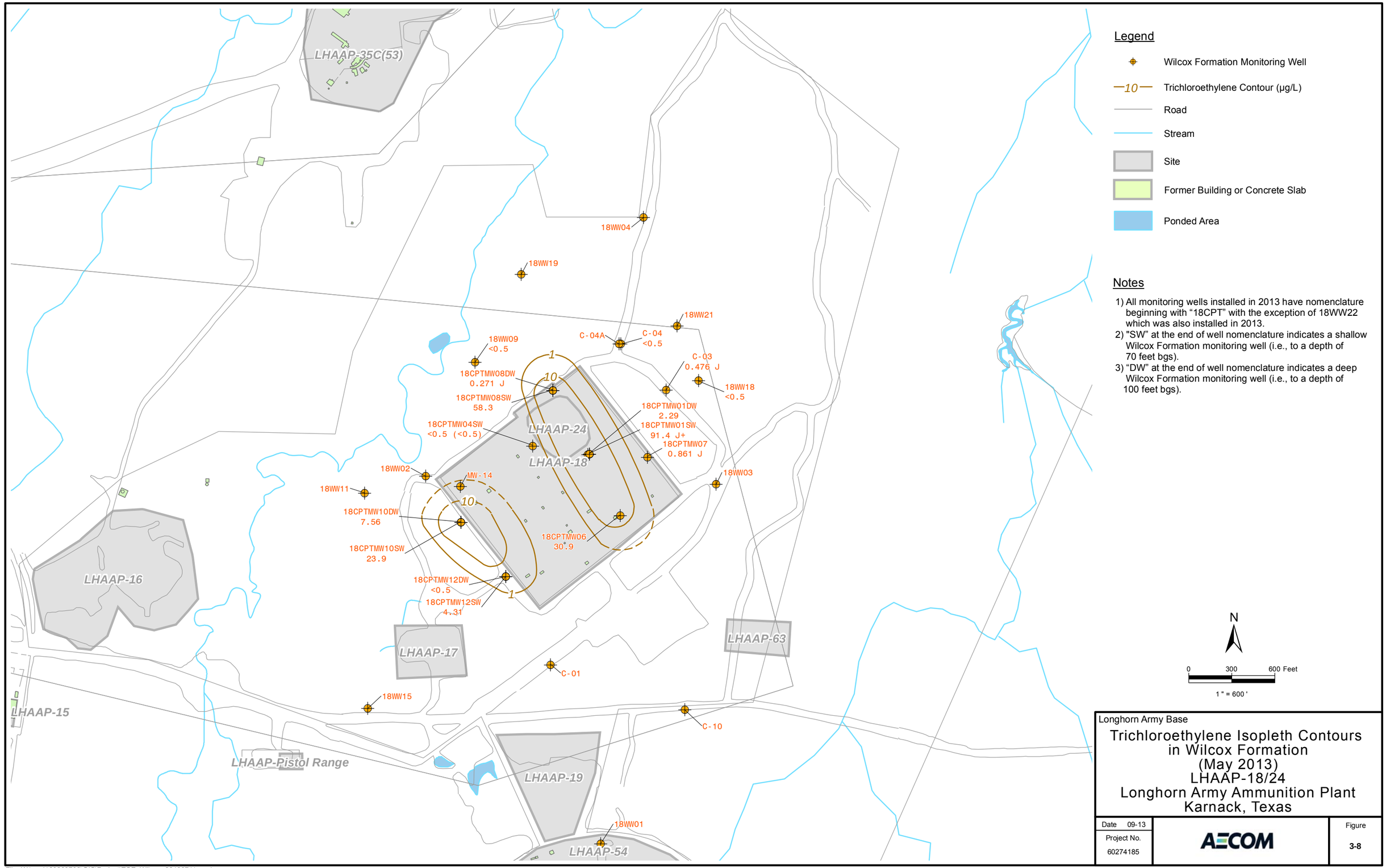

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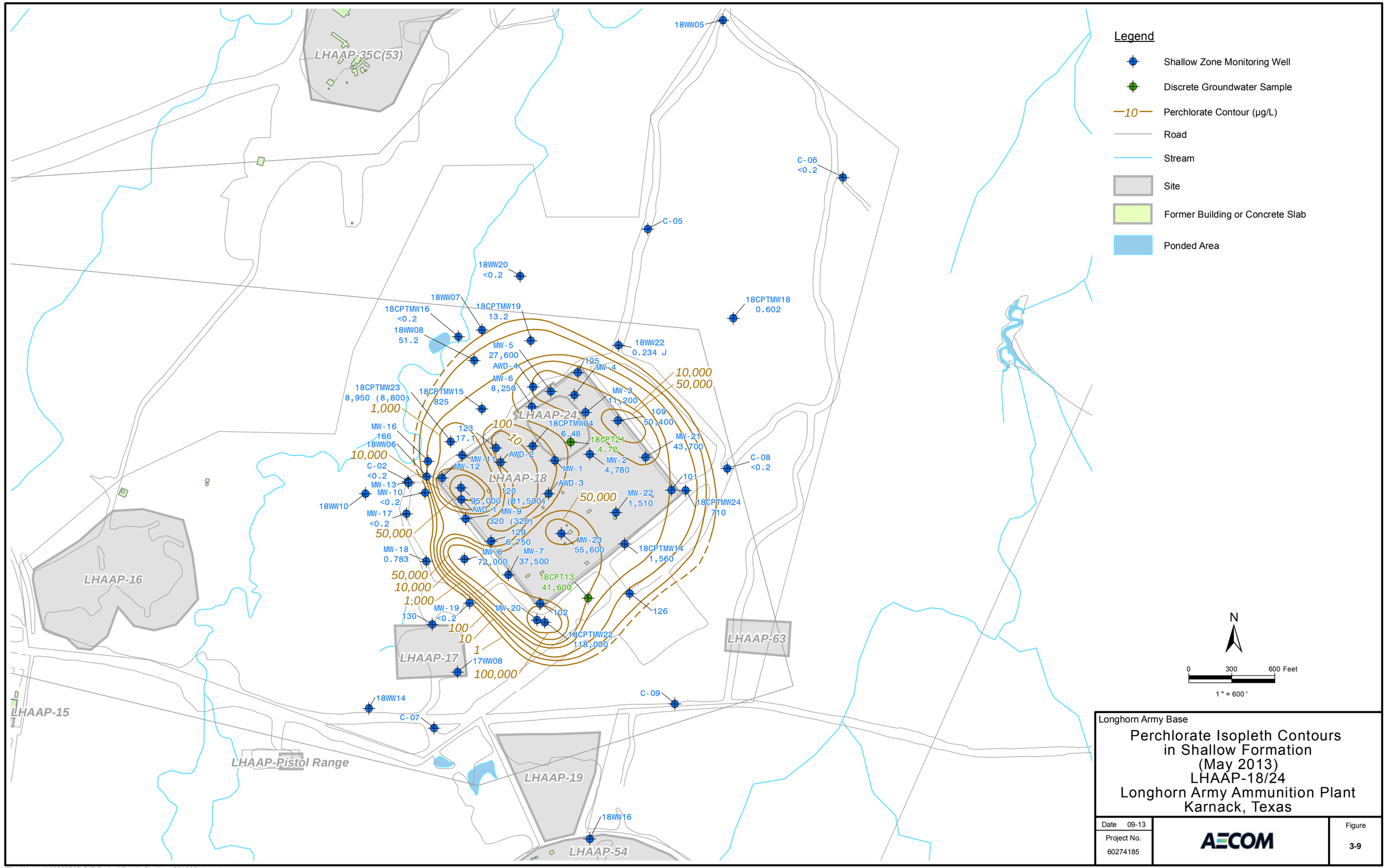

Longhorn Army Base

Perchlorate Isopleth Contours in Shallow Formation (May 2013) LHAAP-18/24 Longhorn Army Ammunition Plant Karnack, Texas

Date 09-13	AECOM	Figure
Project No. 60274185		3-9

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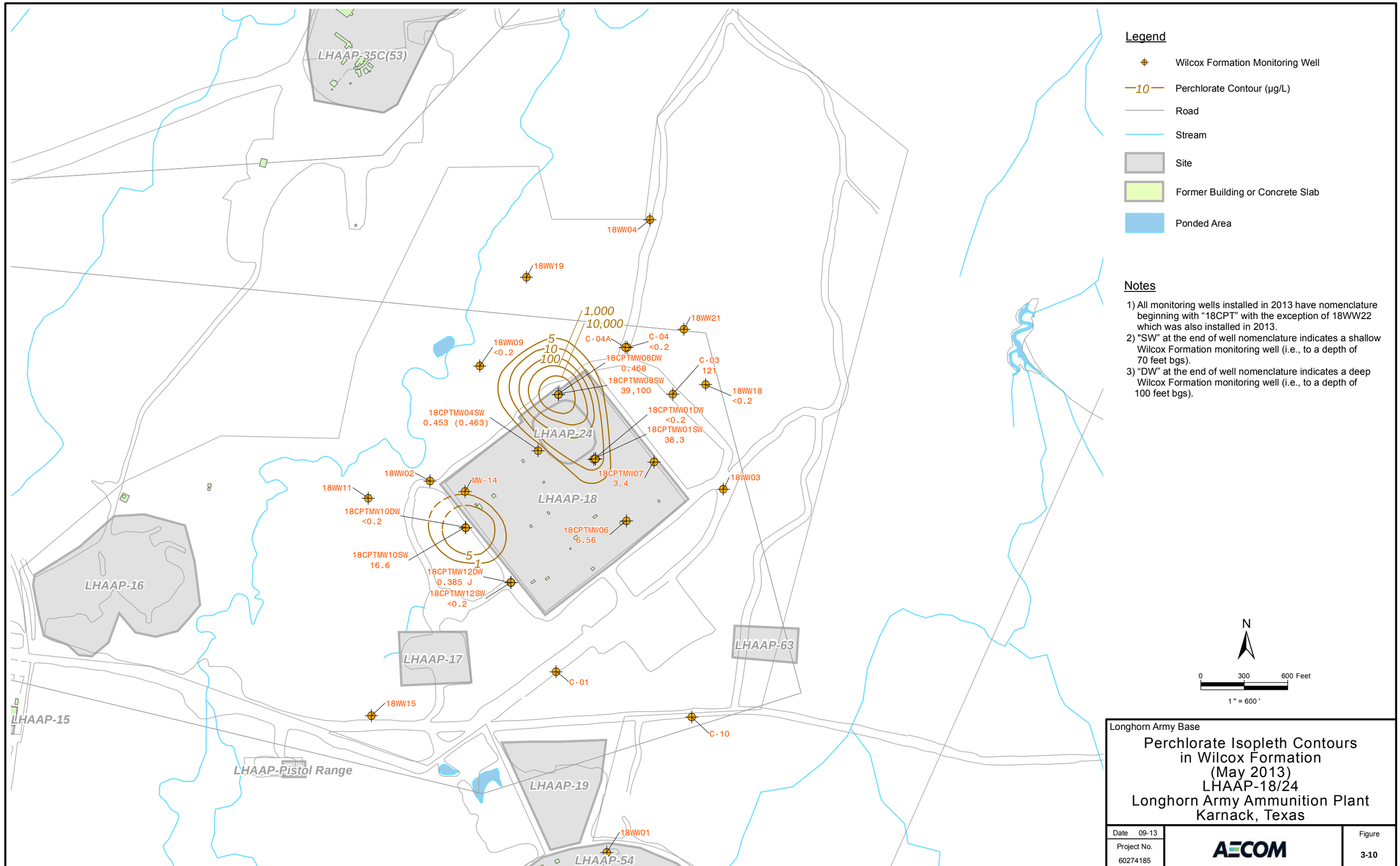

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Date: Thursday, November 07, 2013 2:06:13 PM

Table 3-1: Nested Wells Within and Outside Containment Area - LHAAP-18/24

Nested Well Location	Well Identification with Screened Intervals*		
	Shallow Zone	Upper Wilcox	Lower Wilcox
Inside Containment			
Inside containment/South of UEP	MW-2 33.4 to 38.4	**18CPTMW01SW** **53 to 62.5**	**18CPTMW01DW** **88 to 97.5**
Inside containment/West of UEP	**18CPTMW04** **14 to 33.5**	**18CPTMW04SW** **53 to 62.5**	
Inside containment/Southeast area	MW-22 32.5 to 37.5	**18CPTMW06SW** **54 to 63.5**	
Just inside containment/Southeast boundary	MW-21 36.1 to 41.1	**18CPTMW07SW** **54.4 to 63.9**	
Just inside containment/Northeast boundary	MW-5 33.8 to 38.8	**18CPTMW08SW** **43.1 to 52.6**	**18CPTMW08DW** **89.8 to 99.3**
Inside containment/Northwest boundary	120 9.2 to 24.2	MW-14 43 to 48	
Outside Containment			
Just outside containment/Southwest boundary	MW-9 20 to 25	**18CPTMW10SW** **43 to 52.5**	**18CPTMW10DW** **88.8 to 98.3**
Just outside containment/Southwest boundary	MW-7 18 to 23	**18CPTMW12SW** **42.5 to 52.0**	**18CPTMW12DW** **90.0 to 99.5**
Outside containment/Northeast Area	**18WW22** **27.0 to 41.5**	C-04 43.6 to 53.7	C-04A 108.5 to 113.5
Outside containment/Northwest Area	18WW08 9 to 19	18WW09 49 to 59	
Outside containment/Northeast Area	18WW17 25 to 35	18WW18 51 to 61	
Outside containment/North Area	18WW20 24 to 34	18WW19 45 to 55	
Outside containment/Northwest Area	C-02 17.9 to 27.9	MW-13 38 to 43	
Outside containment/Northwest Area	18WW10 22 to 32	18WW11 52 to 62	
Outside containment/Northwest Area		18WW06 57 to 67	18WW02 175 to 185

NOTES/EXPLANATIONS/ABBREVIATIONS:

Bolded text indicates new wells completed between February and May 2013

* Interval in feet below ground surface

UEP - unlined evaporation pond

Table 3-2: Vertical Gradients - LHAAP-18/24 (May 2013)

Nested Well Location	Well Information				Groundwater Elevation (feet amsl)			Gradient Direction		
	Shallow Zone	Upper Wilcox	Lower Wilcox	Date	Shallow Zone	Upper Wilcox	Lower Wilcox	Between Shallow and Upper Wilcox	Between Shallow and Lower Wilcox	Between Upper and Lower Wilcox
Inside Containment										
Inside containment/South of UEP	MW-2	18CPTMW01SW	18CPTMW01DW	5/9/2013 5/16/2013	169.30	170.25	143.02*	upward	NA	NA
Inside containment/West of UEP	18CPTMW04	18CPTMW04SW		5/17/2013	173.60	169.72		downward	NA	NA
Inside containment/Southeast area	MW-22	18CPTMW06SW		5/08/2013 5/17/2013	169.02	169.72		upward	NA	NA
Inside containment/Northeast boundary	MW-21	18CPTMW07SW		5/07/2013 5/17/2013	166.90	167.69		upward	NA	NA
Inside containment/Northwest boundary	MW-5	18CPTMW08SW	18CPTMW08DW	5/09/2013 6/4/2013 5/17/2013	168.37	167.93	168.79	downward	upward	upward
Inside containment/Northwest corner	120	MW-14		5/10/2013 5/08/2013	170.77	171.75		upward	NA	NA
Outside Containment										
Outside containment/Northeast Area	18WW22	C-04	C-04A	5/13/2013 5/11/2013 5/07/2013	168.06	167.06	166.70	downward	downward	downward
Outside containment/Northeast Area	18WW17	18WW18		5/7/2013	Extraction well	168.18		NA	NA	NA
Outside containment/Northwest Area	18WW08	18WW09		5/15/2013 5/19/2013	167.17	168.16	166.70	upward	downward	downward
Outside containment/North Area	18WW20	18WW19		5/09/2013 5/15/2013	167.90	167.66		downward	NA	NA
Outside containment/Northwest Area	C-02	MW-13		5/9/2013	168.95	168.57		downward	NA	NA
Outside containment/Northwest Area	18WW10	18WW11		5/15/2013 5/19/2013	167.63	168.54		upward	NA	NA
Outside containment/Northwest Area	18WW02	18WW06		5/11/2013	168.32	168.25		downward	NA	NA
Outside containment/Southwest boundary	MW-9	18CPTMW10SW	18CPTMW10DW	5/09/2013 6/4/2013 5/17/2013	169.23	168.13	168.30	downward	downward	upward
Outside containment/Southwest boundary	MW-7	18CPTMW12SW	18CPTMW12DW	5/14/2013 6/4/2013	168.38	168.19	168.15	downward	downward	downward

NOTES/EXPLANATIONS/ABBREVIATIONS:
*The value appears to be in error and is not used in determining vertical gradient
amsl - above mean sea level
NA - not available
UEP - unlined evaporation pond

Table 3-3: Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	RRS (GWP-Ind)	18CPT01 (7-8)-260213 2/26/2013	18CPT01 (15-16)-270213 2/27/2013	18CPT01 (31-32)-270213 2/27/2013	18CPT01 (40-40.5)-270213 2/27/2013	18CPT02 (8-9)280313 3/28/2013	18CPT02 (21-22)280313 3/28/2013	18CPT02 (29-30)280313 3/28/2013	18CPT02 (41-42)280313 3/28/2013	18CPT03 (10-11)-110313 3/11/2013	18CPT03 (21-22)-110313 3/11/2013	18CPT03 (34-35)-110313 3/11/2013
Sample Location:			**Unsaturated**	**Unsaturated**	**Saturated**	**Saturated**	**Unsaturated**	**Smear Zone**	**Saturated**	**Saturated**	**Unsaturated**	**Smear Zone**	**Saturated**
Metals (6010C)													
IRON	mg/kg		NA	NA	NA	NA	6290	8690	13800	13200	6420	17600	6380
SELENIUM	mg/kg	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (6020A)													
ARSENIC	mg/kg	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/kg	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	mg/kg	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	mg/kg	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/kg	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/kg	51.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate (6850)													
PERCHLORATE	ug/kg	7200	6.29	1.24	1.36	5670	1.9 J	5	40	1.5 J	2.44 J	3.49 J	7270
Hexavalent Chromium (7196A)													
HEXAVALENT CHROMIUM	mg/kg	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471A)													
MERCURY	mg/kg	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (8260B)													
1,1,1,2-TETRACHLOROETHANE	ug/kg	11000	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
1,1,1-TRICHLOROETHANE	ug/kg	20000	<1.05 U	<1.08 U	6.71	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
1,1,2,2-TETRACHLOROETHANE	ug/kg	1430	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
1,1,2-TRICHLOROETHANE	ug/kg	500	<1.05 U	<1.08 U	2.14	4.31	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
1,1-DICHLOROETHANE	ug/kg	1E+06	<2.09 U	<2.16 U	12.8	31	<2.14 U	<2.15 U	<230 U	<233 U	<1.99 U	<2.22 U	<221 U
1,1-DICHLOROETHENE	ug/kg	700	<1.05 U	5.5	106	542	<1.07 U	12.9	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
1,1-DICHLOROPROPENE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
1,2,3-TRICHLOROBENZENE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
1,2,3-TRICHLOROPROPANE	ug/kg		<2.09 U	<2.16 U	<1.92 U	<2.01 U	<2.14 U	<2.15 U	<230 U	<233 U	<1.99 U	<2.22 U	<221 U
1,2,4-TRICHLOROBENZENE	ug/kg	7000	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
1,2,4-TRIMETHYLBENZENE	ug/kg		<1.05 U	<1.08 U	2.13	0.508	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	20	<4.19 U	<4.32 U	<3.84 U	<4.03 U	<4.27 U	<4.29 U	<460 U	<465 U	<3.99 U	<4.44 U	<442 U
1,2-DIBROMOETHANE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
1,2-DICHLOROBENZENE	ug/kg	60000	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
1,2-DICHLOROETHANE	ug/kg	500	<1.05 U	<1.08 U	<0.96 U	1.97	<1.07 U	9.73	253 J	<116 U	<0.997 U	<1.11 U	64.4 J
1,2-DICHLOROPROPANE	ug/kg	500	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
1,3,5-TRIMETHYLBENZENE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
1,3-DICHLOROBENZENE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
1,3-DICHLOROPROPANE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
1,4-DICHLOROBENZENE	ug/kg	7500	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
2,2-DICHLOROPROPANE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
2-BUTANONE	ug/kg	6E+06	<5.24 U	<5.39 U	<4.8 U	11.3	<5.34 U	<5.37 U	<576 U	<581 U	<4.98 U	2.88 J	<553 UJ
2-CHLOROTOLUENE	ug/kg	204400	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
2-HEXANONE	ug/kg		<5.24 U	<5.39 U	<4.8 U	<5.03 U	<5.34 U	<5.37 U	<576 U	<581 U	<4.98 U	<5.55 U	<553 U
4-CHLOROTOLUENE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
4-METHYL-2-PENTANONE	ug/kg	817600	<5.24 U	<5.39 U	<4.8 U	<5.03 U	<5.34 U	<5.37 U	<576 U	<581 U	<4.98 U	<5.55 U	<553 UJ
ACETONE	ug/kg	102200	<10.5 U	<10.8 U	<9.6 U	<10.1 U	9.33 J	<10.7 U	<1150 U	<1160 U	<9.97 U	16.1 J	<1110 U

Table 3-3: Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	RRS (GWP-Ind)	18CPT01 (7-8)-260213 2/26/2013	18CPT01 (15-16)-270213 2/27/2013	18CPT01 (31-32)-270213 2/27/2013	18CPT01 (40-40.5)-270213 2/27/2013	18CPT02 (8-9)280313 3/28/2013	18CPT02 (21-22)280313 3/28/2013	18CPT02 (29-30)280313 3/28/2013	18CPT02 (41-42)280313 3/28/2013	18CPT03 (10-11)-110313 3/11/2013	18CPT03 (21-22)-110313 3/11/2013	18CPT03 (34-35)-110313 3/11/2013
Sample Location:			Unsaturated	Unsaturated	Saturated	Saturated	Unsaturated	Smear Zone	Saturated	Saturated	Unsaturated	Smear Zone	Saturated
BENZENE	ug/kg	500	<1.05 U	<1.08 U	<0.96 U	1.14	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
BROMOBENZENE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
BROMOCHLOROMETHANE	ug/kg		<2.09 U	<2.16 U	<1.92 U	23.4	<2.14 U	<2.15 U	<230 U	<233 U	<1.99 U	<2.22 U	<221 U
BROMODICHLOROMETHANE	ug/kg	10000	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
BROMOFORM	ug/kg	10000	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
BROMOMETHANE	ug/kg	4927	<2.09 U	<2.16 U	<1.92 U	<2.01 U	<2.14 U	<2.15 U	<230 U	<233 U	<1.99 U	<2.22 U	<221 U
CARBON DISULFIDE	ug/kg	102200	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
CARBON TETRACHLORIDE	ug/kg	500	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
CHLOROBENZENE	ug/kg	10000	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
CHLOROETHANE	ug/kg	4E+06	<2.09 U	<2.16 U	<1.92 U	<2.01 U	<2.14 U	<2.15 U	<230 U	<233 U	<1.99 U	<2.22 U	<221 U
CHLOROFORM	ug/kg	514	<1.05 U	<1.08 U	13.7	122	<1.07 U	0.962 J	<115 U	<116 U	<0.997 U	1.25 J	<111 U
CHLOROMETHANE	ug/kg	3834	<4.19 U	<4.32 U	<3.84 U	<4.03 U	<4.27 U	<4.29 U	<460 U	<465 U	<3.99 U	<4.44 U	<442 U
CIS-1,2-DICHLOROETHENE	ug/kg	7000	<1.05 U	1.69	27100	391	<1.07 U	38.5	107 J	2050	<0.997 U	<1.11 U	93 J
CIS-1,3-DICHLOROPROPENE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
DIBROMOCHLOROMETHANE	ug/kg	10000	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
DIBROMOMETHANE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
DICHLORODIFLUOROMETHANE	ug/kg	2E+06	<2.09 U	<2.16 U	<1.92 U	<2.01 U	<2.14 U	<2.15 U	<230 U	<233 U	<1.99 U	<2.22 U	<221 U
ETHYLBENZENE	ug/kg	70000	<1.05 U	<1.08 U	23.9	6.64	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
HEXACHLOROBUTADIENE	ug/kg	2044	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
ISOPROPYLBENZENE	ug/kg		<1.05 U	<1.08 U	0.533	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
M,P-XYLENE	ug/kg	1E+06	<1.05 U	<1.08 U	5.71	3.13	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
METHYLENE CHLORIDE	ug/kg	500	4.06	<2.16 U	135	657000	1.24 J	<2.15 U	<230 U	7150	<1.99 U	1.43 J	<221 U
NAPHTHALENE	ug/kg	204400	<1.05 U	0.589	2.08	0.521	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
N-BUTYLBENZENE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
N-PROPYLBENZENE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
O-XYLENE	ug/kg	1E+06	<1.05 U	<1.08 U	3.2	1.52	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
P-ISOPROPYLTOLUENE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
SEC-BUTYLBENZENE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
STYRENE	ug/kg	10000	<1.05 U	<1.08 U	59.7	4.05	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
TERT-BUTYLBENZENE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
TETRACHLOROETHENE	ug/kg	500	<1.05 U	1.24	18.1	7.65	<1.07 U	0.933 J	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
TOLUENE	ug/kg	100000	<1.05 U	<1.08 U	8.29	4.36	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
TRANS-1,2-DICHLOROETHENE	ug/kg	10000	<1.05 U	<1.08 U	18.2	121	<1.07 U	1.03 J	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
TRANS-1,3-DICHLOROPROPENE	ug/kg		<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U
TRICHLOROETHENE	ug/kg	500	<1.05 U	95.6	197	41400	2.4 J	3000	3130	338 J	<0.997 U	22.7	2320
TRICHLOROFLUOROMETHANE	ug/kg	3E+06	<2.09 U	<2.16 U	<1.92 U	<2.01 U	<2.14 U	<2.15 U	<230 U	<233 U	<1.99 U	<2.22 U	<221 U
VINYL CHLORIDE	ug/kg	200	<2.09 U	<2.16 U	6.93	43.7	<2.14 U	13.8	<230 U	<233 U	<1.99 U	<2.22 U	<221 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

ug/kg - microgram per kilogram

J - estimated concentration

mg/kg - millgram per kilogram

NA - not available

U - below detection limit

RRS - Risk Reduction Standard for industrial land use - groundwater protection

Table 3-3: Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	RRS (GWP-Ind)	18CPT03 (43-44)-110313 3/11/2013	18CPT05 (15-16)-010413 4/1/2013	18CPT05 (25-26)-010413 4/1/2013	18CPT05 (31-32)-010413 4/1/2013	18CPT05 (39-40)-010413 4/1/2013	18CPT06 (9-10)-070313 3/7/2013	18CPT06 (9-10)-070313D 3/7/2013	18CPT06 (19-20)-080313 3/8/2013	18CPT06 (38-39)-080313 3/8/2013	18CPT06 (43-44)-080313 3/8/2013	18CPT07 (7-8)-120313 3/12/2013
Sample Location:			**Saturated**	**Smear Zone**	**Saturated**	**Saturated**	**Saturated**	**Unsaturated**	**Unsaturated**	**Unsaturated**	**Saturated**	**Saturated**	**Unsaturated**
Metals (6010C)													
IRON	mg/kg		8120	16600	8290	7370	5890	8510	7610	8130	7610	2830	9540
SELENIUM	mg/kg	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (6020A)													
ARSENIC	mg/kg	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/kg	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	mg/kg	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	mg/kg	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/kg	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/kg	51.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate (6850)													
PERCHLORATE	ug/kg	7200	70800	1.7	13000	3300	140	<2.46 U	<2.5 U	331	824	15.5	19.6
Hexavalent Chromium (7196A)													
HEXAVALENT CHROMIUM	mg/kg	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471A)													
MERCURY	mg/kg	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (8260B)													
1,1,1,2-TETRACHLOROETHANE	ug/kg	11000	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
1,1,1-TRICHLOROETHANE	ug/kg	20000	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
1,1,2,2-TETRACHLOROETHANE	ug/kg	1430	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
1,1,2-TRICHLOROETHANE	ug/kg	500	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
1,1-DICHLOROETHANE	ug/kg	1E+06	<209 U	<209 U	<5440 U	<2170 U	<2010 U	<2.23 U	<2.11 U	<2.06 U	<1.89 U	<2.11 U	<2.3 U
1,1-DICHLOROETHENE	ug/kg	700	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	0.737	<1.06 U	<1.15 U
1,1-DICHLOROPROPENE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
1,2,3-TRICHLOROBENZENE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
1,2,3-TRICHLOROPROPANE	ug/kg		<209 U	<209 U	<5440 U	<2170 U	<2010 U	<2.23 U	<2.11 U	<2.06 U	<1.89 U	<2.11 U	<2.3 U
1,2,4-TRICHLOROBENZENE	ug/kg	7000	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
1,2,4-TRIMETHYLBENZENE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	20	<419 U	<418 U	<10900 U	<4350 U	<4020 U	<4.47 U	<4.22 U	<4.11 U	<3.77 U	<4.23 U	<4.6 U
1,2-DIBROMOETHANE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
1,2-DICHLOROBENZENE	ug/kg	60000	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
1,2-DICHLOROETHANE	ug/kg	500	<105 U	<104 U	5650 J	4380 J	727 J	<1.12 U	<1.06 U	<1.03 U	0.928	<1.06 U	<1.15 U
1,2-DICHLOROPROPANE	ug/kg	500	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
1,3,5-TRIMETHYLBENZENE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
1,3-DICHLOROBENZENE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
1,3-DICHLOROPROPANE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
1,4-DICHLOROBENZENE	ug/kg	7500	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
2,2-DICHLOROPROPANE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
2-BUTANONE	ug/kg	6E+06	<524 UJ	<522 U	<13600 U	<5430 U	<5020 U	<5.58 U	<5.28 U	<5.14 U	<4.72 U	<5.28 U	<5.75 U
2-CHLOROTOLUENE	ug/kg	204400	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
2-HEXANONE	ug/kg		<524 U	<522 U	<13600 U	<5430 U	<5020 U	<5.58 U	<5.28 U	<5.14 U	<4.72 U	<5.28 U	<5.75 U
4-CHLOROTOLUENE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
4-METHYL-2-PENTANONE	ug/kg	817600	<524 UJ	<522 U	<13600 U	<5430 U	<5020 U	<5.58 U	<5.28 U	<5.14 U	<4.72 U	<5.28 U	<5.75 U
ACETONE	ug/kg	102200	<1050 U	<1040 U	<27200 U	<10900 U	<10000 U	<11.2 U	<10.6 U	<10.3 U	<9.43 U	<10.6 U	<11.5 U

Table 3-3: Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	RRS (GWP-Ind)	18CPT03 (43-44)-110313 3/11/2013	18CPT05 (15-16)-010413 4/1/2013	18CPT05 (25-26)-010413 4/1/2013	18CPT05 (31-32)-010413 4/1/2013	18CPT05 (39-40)-010413 4/1/2013	18CPT06 (9-10)-070313 3/7/2013	18CPT06 (9-10)-070313D 3/7/2013	18CPT06 (19-20)-080313 3/8/2013	18CPT06 (38-39)-080313 3/8/2013	18CPT06 (43-44)-080313 3/8/2013	18CPT07 (7-8)-120313 3/12/2013
Sample Location:			**Saturated**	**Smear Zone**	**Saturated**	**Saturated**	**Saturated**	**Unsaturated**	**Unsaturated**	**Unsaturated**	**Saturated**	**Saturated**	**Unsaturated**
BENZENE	ug/kg	500	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	1.43	<1.06 U	<1.15 U
BROMOBENZENE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
BROMOCHLOROMETHANE	ug/kg		<209 U	<209 U	<5440 U	<2170 U	<2010 U	<2.23 U	<2.11 U	<2.06 U	<1.89 U	<2.11 U	<2.3 U
BROMODICHLOROMETHANE	ug/kg	10000	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
BROMOFORM	ug/kg	10000	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
BROMOMETHANE	ug/kg	4927	<209 U	<209 U	<5440 U	<2170 U	<2010 U	<2.23 U	<2.11 U	<2.06 U	<1.89 U	<2.11 U	<2.3 U
CARBON DISULFIDE	ug/kg	102200	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
CARBON TETRACHLORIDE	ug/kg	500	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
CHLOROBENZENE	ug/kg	10000	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
CHLOROETHANE	ug/kg	4E+06	<209 U	<209 U	<5440 U	<2170 U	<2010 U	<2.23 U	<2.11 U	<2.06 U	<1.89 U	<2.11 U	<2.3 U
CHLOROFORM	ug/kg	514	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	1.1	2.01	<1.06 U	<1.15 U
CHLOROMETHANE	ug/kg	3834	<419 U	<418 U	<10900 U	<4350 U	<4020 U	<4.47 U	<4.22 U	<4.11 U	<3.77 U	<4.23 U	<4.6 U
CIS-1,2-DICHLOROETHENE	ug/kg	7000	<105 U	231 J	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	7.37	1.82	<1.06 U	<1.15 U
CIS-1,3-DICHLOROPROPENE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
DIBROMOCHLOROMETHANE	ug/kg	10000	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
DIBROMOMETHANE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
DICHLORODIFLUOROMETHANE	ug/kg	2E+06	<209 U	<209 U	<5440 U	<2170 U	<2010 U	<2.23 U	<2.11 U	<2.06 U	<1.89 U	<2.11 U	<2.3 U
ETHYLBENZENE	ug/kg	70000	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
HEXACHLOROBUTADIENE	ug/kg	2044	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
ISOPROPYLBENZENE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
M,P-XYLENE	ug/kg	1E+06	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
METHYLENE CHLORIDE	ug/kg	500	<209 U	<209 U	369000	304000	23100	<2.23 U	1.94	<2.06 U	<1.89 U	<2.11 U	<2.3 U
NAPHTHALENE	ug/kg	204400	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
N-BUTYLBENZENE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
N-PROPYLBENZENE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
O-XYLENE	ug/kg	1E+06	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
P-ISOPROPYLTOLUENE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
SEC-BUTYLBENZENE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
STYRENE	ug/kg	10000	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
TERT-BUTYLBENZENE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
TETRACHLOROETHENE	ug/kg	500	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
TOLUENE	ug/kg	100000	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
TRANS-1,2-DICHLOROETHENE	ug/kg	10000	<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
TRANS-1,3-DICHLOROPROPENE	ug/kg		<105 U	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U
TRICHLOROETHENE	ug/kg	500	365 J	8530	161000	109000	139000	16.3	14.8	106	219	<1.06 U	1.66 J
TRICHLOROFLUOROMETHANE	ug/kg	3E+06	<209 U	<209 U	<5440 U	<2170 U	<2010 U	<2.23 U	<2.11 U	<2.06 U	<1.89 U	<2.11 U	<2.3 U
VINYL CHLORIDE	ug/kg	200	<209 U	<209 U	<5440 U	<2170 U	<2010 U	<2.23 U	<2.11 U	<2.06 U	<1.89 U	<2.11 U	<2.3 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

ug/kg - microgram per kilogram

J - estimated concentration

mg/kg - millgram per kilogram

NA - not available

U - below detection limit

RRS - Risk Reduction Standard for industrial land use - groundwater protection

Table 3-3: Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	RRS (GWP-Ind)	18CPT07 (17-18)-120313 3/12/2013	18CPT07 (29-30)-120313 3/12/2013	18CPT07 (37-38)-120313 3/12/2013	18CPT07 (37-38)-120313D 3/12/2013	18CPT08 (6-7)-270213 2/28/2013	18CPT08 (37.5-38)-010313 3/1/2013	18CPT09 (6-7)-010413 4/1/2013	18CPT09 (12-13)-010413 4/1/2013	18CPT09 (16-17)-010413 4/1/2013	18CPT09 (21-22)-010413 4/1/2013	18CPT10 (17-18)-040313 3/4/2013
Sample Location:			**Unsaturated**	**Saturated**	**Saturated**	**Saturated**	**Unsaturated**	**Saturated**	**Unsaturated**	**Saturated**	**Saturated**	**Saturated**	**Saturated**
Metals (6010C)													
IRON	mg/kg		15900	7440	13500	13200	NA	NA	7340	2590	3770	7140	8710
SELENIUM	mg/kg	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (6020A)													
ARSENIC	mg/kg	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/kg	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	mg/kg	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	mg/kg	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/kg	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/kg	51.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate (6850)													
PERCHLORATE	ug/kg	7200	669	3780	6080	6660	2.05	7060	2500	490	470	<1.3 U	4430
Hexavalent Chromium (7196A)													
HEXAVALENT CHROMIUM	mg/kg	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471A)													
MERCURY	mg/kg	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (8260B)													
1,1,1,2-TETRACHLOROETHANE	ug/kg	11000	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
1,1,1-TRICHLOROETHANE	ug/kg	20000	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
1,1,2,2-TETRACHLOROETHANE	ug/kg	1430	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
1,1,2-TRICHLOROETHANE	ug/kg	500	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	0.568 J	<108 U	<114 U	<0.997 U	<0.98 U
1,1-DICHLOROETHANE	ug/kg	1E+06	<2.42 U	<198 U	<218 U	<218 U	<2.05 U	<2.01 U	1.06 J	<215 U	<229 U	<1.99 U	1.19
1,1-DICHLOROETHENE	ug/kg	700	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	0.638 J	<108 U	<114 U	<0.997 U	3.36
1,1-DICHLOROPROPENE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
1,2,3-TRICHLOROBENZENE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
1,2,3-TRICHLOROPROPANE	ug/kg		<2.42 U	<198 U	<218 U	<218 U	<2.05 U	<2.01 U	<1.88 U	<215 U	<229 U	<1.99 U	<1.96 U
1,2,4-TRICHLOROBENZENE	ug/kg	7000	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
1,2,4-TRIMETHYLBENZENE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	20	<4.83 U	<395 U	<435 U	<435 U	<4.1 U	<4.02 U	<3.75 U	<431 U	<457 U	<3.99 U	<3.92 U
1,2-DIBROMOETHANE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
1,2-DICHLOROBENZENE	ug/kg	60000	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
1,2-DICHLOROETHANE	ug/kg	500	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	6.29
1,2-DICHLOROPROPANE	ug/kg	500	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
1,3,5-TRIMETHYLBENZENE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
1,3-DICHLOROBENZENE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
1,3-DICHLOROPROPANE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
1,4-DICHLOROBENZENE	ug/kg	7500	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
2,2-DICHLOROPROPANE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
2-BUTANONE	ug/kg	6E+06	<6.04 U	<494 UJ	<544 UJ	<544 UJ	<5.12 U	<5.03 U	<4.69 U	<538 U	<572 U	<4.99 U	<4.9 U
2-CHLOROTOLUENE	ug/kg	204400	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
2-HEXANONE	ug/kg		<6.04 U	<494 U	<544 U	<544 U	<5.12 U	<5.03 U	<4.69 U	<538 U	<572 U	<4.99 U	<4.9 U
4-CHLOROTOLUENE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
4-METHYL-2-PENTANONE	ug/kg	817600	<6.04 U	<494 UJ	<544 UJ	<544 UJ	<5.12 U	<5.03 U	<4.69 U	<538 U	<572 U	<4.99 U	<4.9 U
ACETONE	ug/kg	102200	<12.1 U	<988 U	<1090 U	<1090 U	<10.2 U	<10.1 U	<9.38 U	<1080 U	<1140 U	<9.97 U	<9.8 U

Table 3-3: Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	RRS (GWP-Ind)	18CPT07 (17-18)-120313 3/12/2013	18CPT07 (29-30)-120313 3/12/2013	18CPT07 (37-38)-120313 3/12/2013	18CPT07 (37-38)-120313D 3/12/2013	18CPT08 (6-7)-270213 2/28/2013	18CPT08 (37.5-38)-010313 3/1/2013	18CPT09 (6-7)-010413 4/1/2013	18CPT09 (12-13)-010413 4/1/2013	18CPT09 (16-17)-010413 4/1/2013	18CPT09 (21-22)-010413 4/1/2013	18CPT10 (17-18)-040313 3/4/2013
Sample Location:			Unsaturated	Saturated	Saturated	Saturated	Unsaturated	Saturated	Unsaturated	Saturated	Saturated	Saturated	Saturated
BENZENE	ug/kg	500	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
BROMOBENZENE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
BROMOCHLOROMETHANE	ug/kg		<2.42 U	<198 U	<218 U	<218 U	<2.05 U	<2.01 U	<1.88 U	<215 U	<229 U	<1.99 U	<1.96 U
BROMODICHLOROMETHANE	ug/kg	10000	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
BROMOFORM	ug/kg	10000	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
BROMOMETHANE	ug/kg	4927	<2.42 U	<198 U	<218 U	<218 U	<2.05 U	<2.01 U	<1.88 U	<215 U	<229 U	<1.99 U	<1.96 U
CARBON DISULFIDE	ug/kg	102200	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
CARBON TETRACHLORIDE	ug/kg	500	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
CHLOROBENZENE	ug/kg	10000	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
CHLOROETHANE	ug/kg	4E+06	<2.42 U	<198 U	<218 U	<218 U	<2.05 U	<2.01 U	<1.88 U	<215 U	<229 U	<1.99 U	<1.96 U
CHLOROFORM	ug/kg	514	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	1.69
CHLOROMETHANE	ug/kg	3834	<4.83 U	<395 U	<435 U	<435 U	<4.1 U	<4.02 U	<3.75 U	<431 U	<457 U	<3.99 U	<3.92 U
CIS-1,2-DICHLOROETHENE	ug/kg	7000	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	2.44	40.2	84.7 J	146 J	<0.997 U	20.7
CIS-1,3-DICHLOROPROPENE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
DIBROMOCHLOROMETHANE	ug/kg	10000	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
DIBROMOMETHANE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
DICHLORODIFLUOROMETHANE	ug/kg	2E+06	<2.42 U	<198 U	<218 U	<218 U	<2.05 U	<2.01 U	<1.88 U	<215 U	<229 U	<1.99 U	<1.96 UJ
ETHYLBENZENE	ug/kg	70000	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
HEXACHLOROBUTADIENE	ug/kg	2044	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
ISOPROPYLBENZENE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
M,P-XYLENE	ug/kg	1E+06	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
METHYLENE CHLORIDE	ug/kg	500	<2.42 U	<198 U	<218 U	<218 U	1.92	2.85	<1.88 U	<215 U	<229 U	<1.99 U	<1.96 U
NAPHTHALENE	ug/kg	204400	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
N-BUTYLBENZENE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
N-PROPYLBENZENE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
O-XYLENE	ug/kg	1E+06	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
P-ISOPROPYLTOLUENE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
SEC-BUTYLBENZENE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
STYRENE	ug/kg	10000	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
TERT-BUTYLBENZENE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
TETRACHLOROETHENE	ug/kg	500	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
TOLUENE	ug/kg	100000	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
TRANS-1,2-DICHLOROETHENE	ug/kg	10000	<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
TRANS-1,3-DICHLOROPROPENE	ug/kg		<1.21 U	<98.8 U	<109 U	<109 U	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U
TRICHLOROETHENE	ug/kg	500	1.13 J	368 J	369 J	371 J	<1.02 U	11.8	425 J	2220	4260	6.21	5500
TRICHLOROFLUOROMETHANE	ug/kg	3E+06	<2.42 U	<198 U	<218 U	<218 U	<2.05 U	<2.01 U	<1.88 U	<215 U	<229 U	<1.99 U	<1.96 U
VINYL CHLORIDE	ug/kg	200	<2.42 U	<198 U	<218 U	<218 U	<2.05 U	1.9	<1.88 U	<215 U	<229 U	<1.99 U	<1.96 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

ug/kg - microgram per kilogram

J - estimated concentration

mg/kg - millgram per kilogram

NA - not available

U - below detection limit

RRS - Risk Reduction Standard for industrial land use - groundwater protection

Table 3-3: Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	RRS (GWP-Ind)	18CPT10 (19-20)-040313 3/4/2013	18CPT10 (19-20)-070313D 3/4/2013	18CPT10 (27-27.5)-040313 3/4/2013	18CPT10 (28-29)-040313 3/4/2013	18CPT12 (13-14)-050313 3/5/2013	18CPT12 (18-19)-050313 3/5/2013	18CPT12 (22-23)-050313 3/5/2013	18CPT12 (28-29)-050313 3/5/2013	18CPT13 (18-19)-080313 3/8/2013	18CPT13 (27.5-28.5)-080313 3/8/2013
Sample Location:			**Saturated**	**Saturated**	**Saturated**	**Saturated**	**Unsaturated**	**Saturated**	**Saturated**	**Saturated**	**Unsaturated**	**Saturated**
Metals (6010C)												
IRON	mg/kg		10500	10800	11800	4910	14800	1210	6170	8070	10000	3880
SELENIUM	mg/kg	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (6020A)												
ARSENIC	mg/kg	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/kg	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	mg/kg	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	mg/kg	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/kg	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/kg	51.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate (6850)												
PERCHLORATE	ug/kg	7200	3350	3230	84200	127000	29.2	3730	6480	8830	1030	5400
Hexavalent Chromium (7196A)												
HEXAVALENT CHROMIUM	mg/kg	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7471A)												
MERCURY	mg/kg	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (8260B)												
1,1,1,2-TETRACHLOROETHANE	ug/kg	11000	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
1,1,1-TRICHLOROETHANE	ug/kg	20000	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
1,1,2,2-TETRACHLOROETHANE	ug/kg	1430	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
1,1,2-TRICHLOROETHANE	ug/kg	500	<1.16 U	<0.98 U	1.35	1.38	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
1,1-DICHLOROETHANE	ug/kg	1E+06	1.84	<1.96 U	<2.01 U	<1.89 U	<2.42 U	<2.13 U	<1.8 U	<1.94 U	<2.03 U	<2.18 U
1,1-DICHLOROETHENE	ug/kg	700	3.31	0.832	2.87	3.75	<1.21 U	1.12	4.14	2.71	<1.02 U	<1.09 U
1,1-DICHLOROPROPENE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
1,2,3-TRICHLOROBENZENE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
1,2,3-TRICHLOROPROPANE	ug/kg		<2.33 U	<1.96 U	<2.01 U	<1.89 U	<2.42 U	<2.13 U	<1.8 U	<1.94 U	<2.03 U	<2.18 U
1,2,4-TRICHLOROBENZENE	ug/kg	7000	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
1,2,4-TRIMETHYLBENZENE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	20	<4.66 U	<3.92 U	<4.01 U	<3.78 U	<4.84 U	<4.26 U	<3.61 U	<3.87 U	<4.06 U	<4.35 U
1,2-DIBROMOETHANE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
1,2-DICHLOROBENZENE	ug/kg	60000	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
1,2-DICHLOROETHANE	ug/kg	500	1.84	1.4	2.06	0.841	<1.21 U	1.13	3.22	2.26	<1.02 U	<1.09 U
1,2-DICHLOROPROPANE	ug/kg	500	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
1,3,5-TRIMETHYLBENZENE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
1,3-DICHLOROBENZENE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
1,3-DICHLOROPROPANE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
1,4-DICHLOROBENZENE	ug/kg	7500	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
2,2-DICHLOROPROPANE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
2-BUTANONE	ug/kg	6E+06	<5.82 U	<4.9 U	<5.02 U	<4.72 U	<6.04 U	<5.32 U	<4.51 U	<4.84 U	<5.08 U	<5.44 U
2-CHLOROTOLUENE	ug/kg	204400	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
2-HEXANONE	ug/kg		<5.82 U	<4.9 U	<5.02 U	<4.72 U	<6.04 U	<5.32 U	<4.51 U	<4.84 U	<5.08 U	<5.44 U
4-CHLOROTOLUENE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
4-METHYL-2-PENTANONE	ug/kg	817600	<5.82 U	<4.9 U	<5.02 U	<4.72 U	<6.04 U	<5.32 U	<4.51 U	<4.84 U	<5.08 U	<5.44 U
ACETONE	ug/kg	102200	<11.6 U	<9.8 U	<10 U	<9.45 U	<12.1 U	<10.6 U	<9.02 U	<9.68 U	<10.2 U	<10.9 U

Table 3-3: Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	RRS (GWP-Ind)	18CPT10 (19-20)-040313 3/4/2013	18CPT10 (19-20)-070313D 3/4/2013	18CPT10 (27-27.5)-040313 3/4/2013	18CPT10 (28-29)-040313 3/4/2013	18CPT12 (13-14)-050313 3/5/2013	18CPT12 (18-19)-050313 3/5/2013	18CPT12 (22-23)-050313 3/5/2013	18CPT12 (28-29)-050313 3/5/2013	18CPT13 (18-19)-080313 3/8/2013	18CPT13 (27.5-28.5)-080313 3/8/2013
Sample Location:			Saturated	Saturated	Saturated	Saturated	Unsaturated	Saturated	Saturated	Saturated	Unsaturated	Saturated
BENZENE	ug/kg	500	<1.16 U	<0.98 U	<1 U	0.609	<1.21 U	<1.06 U	1.73	1.79	<1.02 U	<1.09 U
BROMOBENZENE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
BROMOCHLOROMETHANE	ug/kg		<2.33 U	<1.96 U	<2.01 U	<1.89 U	<2.42 U	<2.13 U	<1.8 U	<1.94 U	<2.03 U	<2.18 U
BROMODICHLOROMETHANE	ug/kg	10000	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
BROMOFORM	ug/kg	10000	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
BROMOMETHANE	ug/kg	4927	<2.33 U	<1.96 U	<2.01 U	<1.89 U	<2.42 U	<2.13 U	<1.8 U	<1.94 U	<2.03 U	<2.18 U
CARBON DISULFIDE	ug/kg	102200	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
CARBON TETRACHLORIDE	ug/kg	500	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	2.75	2.52	<1.02 U	<1.09 U
CHLOROBENZENE	ug/kg	10000	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
CHLOROETHANE	ug/kg	4E+06	<2.33 U	<1.96 U	<2.01 U	<1.89 U	<2.42 U	<2.13 U	<1.8 U	<1.94 U	<2.03 U	<2.18 U
CHLOROFORM	ug/kg	514	0.998	0.69	6.65	8.44	0.614	1.91	2.44	2.4	<1.02 U	<1.09 U
CHLOROMETHANE	ug/kg	3834	<4.66 U	<3.92 U	<4.01 U	<3.78 U	<4.84 U	<4.26 U	<3.61 U	<3.87 U	<4.06 U	<4.35 U
CIS-1,2-DICHLOROETHENE	ug/kg	7000	32.4 J	15.8 J	17	16.6	1.63	2.74	2.18	2.47	<1.02 U	<1.09 U
CIS-1,3-DICHLOROPROPENE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
DIBROMOCHLOROMETHANE	ug/kg	10000	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
DIBROMOMETHANE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
DICHLORODIFLUOROMETHANE	ug/kg	2E+06	<2.33 UJ	<1.96 U	<2.01 UJ	<1.89 UJ	<2.42 U	<2.13 UJ	<1.8 UJ	<1.94 U	<2.03 U	<2.18 U
ETHYLBENZENE	ug/kg	70000	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
HEXACHLOROBUTADIENE	ug/kg	2044	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
ISOPROPYLBENZENE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
M,P-XYLENE	ug/kg	1E+06	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
METHYLENE CHLORIDE	ug/kg	500	<2.33 U	<1.96 U	1.59	2.62	<2.42 U	<2.13 U	<1.8 U	<1.94 U	<2.03 U	1.27
NAPHTHALENE	ug/kg	204400	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
N-BUTYLBENZENE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
N-PROPYLBENZENE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
O-XYLENE	ug/kg	1E+06	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
P-ISOPROPYLTOLUENE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
SEC-BUTYLBENZENE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
STYRENE	ug/kg	10000	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
TERT-BUTYLBENZENE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
TETRACHLOROETHENE	ug/kg	500	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
TOLUENE	ug/kg	100000	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
TRANS-1,2-DICHLOROETHENE	ug/kg	10000	<1.16 U	<0.98 U	0.956	1.68	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
TRANS-1,3-DICHLOROPROPENE	ug/kg		<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U	<1.02 U	<1.09 U
TRICHLOROETHENE	ug/kg	500	3140	3740	10300	25900	44.7	267	3820	1380	<1.02 U	4.83
TRICHLOROFLUOROMETHANE	ug/kg	3E+06	<2.33 U	<1.96 U	<2.01 U	<1.89 U	<2.42 U	<2.13 U	<1.8 U	<1.94 U	<2.03 U	<2.18 U
VINYL CHLORIDE	ug/kg	200	<2.33 U	<1.96 U	<2.01 U	<1.89 U	<2.42 U	<2.13 U	<1.8 U	<1.94 U	<2.03 U	<2.18 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

ug/kg - microgram per kilogram

J - estimated concentration

mg/kg - millgram per kilogram

NA - not available

U - below detection limit

RRS - Risk Reduction Standard for industrial land use - groundwater protection

Table 3-3: Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	RRS (GWP-Ind)	18CPT13 (35-36)-080313 3/8/2013	18CPT13 (43-44)-080313 3/8/2013	18CPT20 (7-8)290313 3/29/2013	18CPT20 (16-17)290313 3/29/2013	18CPT20 (32-33)290313 3/29/2013	18CPT21 (16-17)280313 3/28/2013	18CPT21 (27-28)280313 3/28/2013	18CPT21 (48-49)280313 3/28/2013	18CPT21 (48-49)280313D 3/28/2013	18CPT25 (15-16)250313 3/25/2013	18CPT25 (21-22)250313 3/25/2013
Sample Location:			**Saturated**	**Saturated**	**Smear Zone**	**Saturated**	**Saturated**	**Unsaturated**	**Saturated**	**Saturated**	**Saturated**	**Unsaturated**	**Unsaturated**
Metals (6010C)													
IRON	mg/kg		2440	4150	17600	1150	6880	NA	NA	NA	NA	9510	12200
SELENIUM	mg/kg	5	NA	NA	NA	NA	NA	<0.926 U	<0.88 U	0.576 J	0.578 J	<4.59 U	<4.55 U
Metals (6020A)													
ARSENIC	mg/kg	5	NA	NA	NA	NA	NA	1.39	1.85	0.567 J	0.563 J	0.971	2.55
BARIUM	mg/kg	200	NA	NA	NA	NA	NA	34.8	123	132	120	111	137
CADMIUM	mg/kg	0.5	NA	NA	NA	NA	NA	<0.121 U	0.0764 J	<0.127 U	<0.122 U	<0.116 U	<0.118 U
CHROMIUM	mg/kg	10	NA	NA	NA	NA	NA	5.61	7.39	9.85	6.43	7.06	7.39
LEAD	mg/kg	1.5	NA	NA	NA	NA	NA	7.17	5.77	13.2	9.83	8.2	6.32
SILVER	mg/kg	51.1	NA	NA	NA	NA	NA	<0.244 U	<0.242 U	<0.25 U	<0.241 U	<0.239 U	<0.243 U
Perchlorate (6850)													
PERCHLORATE	ug/kg	7200	6620	4650	16	9000	19000	8.4	18	2100	26000	4.9	7
Hexavalent Chromium (7196A)													
HEXAVALENT CHROMIUM	mg/kg	10	NA	NA	NA	NA	NA	<2.46 U	<2.45 U	<2.51 U	1.83 J	<4.9 U	<4.77 U
Mercury (7471A)													
MERCURY	mg/kg	0.2	NA	NA	NA	NA	NA	0.0137 J	<0.024 U	<0.0242 U	<0.0254 U	<0.024 U	<0.0244 U
Volatile Organic Compounds (8260B)													
1,1,1,2-TETRACHLOROETHANE	ug/kg	11000	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
1,1,1-TRICHLOROETHANE	ug/kg	20000	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	86500 J	<119 U	<107 U
1,1,2,2-TETRACHLOROETHANE	ug/kg	1430	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
1,1,2-TRICHLOROETHANE	ug/kg	500	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
1,1-DICHLOROETHANE	ug/kg	1E+06	<1.88 U	<1.9 U	<210 U	<246 U	<217 U	<338 U	<1680 U	<114000 U	<167000 U	<238 U	<214 U
1,1-DICHLOROETHENE	ug/kg	700	<0.942 U	<0.95 U	<105 U	108 J	<108 U	165 J	644 J	<56800 U	<83500 U	117 J	114 J
1,1-DICHLOROPROPENE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
1,2,3-TRICHLOROBENZENE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
1,2,3-TRICHLOROPROPANE	ug/kg		<1.88 U	<1.9 U	<210 U	<246 U	<217 U	<338 U	<1680 U	<114000 U	<167000 U	<238 U	<214 U
1,2,4-TRICHLOROBENZENE	ug/kg	7000	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
1,2,4-TRIMETHYLBENZENE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	20	<3.77 U	<3.8 U	<420 U	<493 U	<434 U	<675 U	<3350 U	<227000 U	<334000 U	<476 U	<428 U
1,2-DIBROMOETHANE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
1,2-DICHLOROBENZENE	ug/kg	60000	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
1,2-DICHLOROETHANE	ug/kg	500	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
1,2-DICHLOROPROPANE	ug/kg	500	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
1,3,5-TRIMETHYLBENZENE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
1,3-DICHLOROBENZENE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
1,3-DICHLOROPROPANE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
1,4-DICHLOROBENZENE	ug/kg	7500	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
2,2-DICHLOROPROPANE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
2-BUTANONE	ug/kg	6E+06	<4.71 U	<4.75 U	<526 U	<616 U	<542 U	<844 U	<4190 U	<284000 U	<417000 U	<595 U	<535 U
2-CHLOROTOLUENE	ug/kg	204400	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
2-HEXANONE	ug/kg		<4.71 U	<4.75 U	<526 U	<616 U	<542 U	<844 U	<4190 U	<284000 U	<417000 U	<595 U	<535 U
4-CHLOROTOLUENE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
4-METHYL-2-PENTANONE	ug/kg	817600	<4.71 U	<4.75 U	<526 U	<616 U	<542 U	<844 U	<4190 U	<284000 U	<417000 U	<595 U	<535 U
ACETONE	ug/kg	102200	<9.42 U	<9.5 U	<1050 U	<1230 U	<1080 U	<1690 U	<8390 U	<568000 U	<835000 U	<1190 U	<1070 U

Table 3-3: Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	RRS (GWP-Ind)	18CPT13 (35-36)-080313 3/8/2013	18CPT13 (43-44)-080313 3/8/2013	18CPT20 (7-8)290313 3/29/2013	18CPT20 (16-17)290313 3/29/2013	18CPT20 (32-33)290313 3/29/2013	18CPT21 (16-17)280313 3/28/2013	18CPT21 (27-28)280313 3/28/2013	18CPT21 (48-49)280313 3/28/2013	18CPT21 (48-49)280313D 3/28/2013	18CPT25 (15-16)250313 3/25/2013	18CPT25 (21-22)250313 3/25/2013
Sample Location:			**Saturated**	**Saturated**	**Smear Zone**	**Saturated**	**Saturated**	**Unsaturated**	**Saturated**	**Saturated**	**Saturated**	**Unsaturated**	**Unsaturated**
BENZENE	ug/kg	500	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
BROMOBENZENE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
BROMOCHLOROMETHANE	ug/kg		<1.88 U	<1.9 U	<210 U	<246 U	<217 U	<338 U	<1680 U	<114000 U	<167000 U	<238 U	<214 U
BROMODICHLOROMETHANE	ug/kg	10000	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
BROMOFORM	ug/kg	10000	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
BROMOMETHANE	ug/kg	4927	<1.88 U	<1.9 U	<210 U	<246 U	<217 U	<338 U	<1680 U	<114000 U	<167000 U	<238 U	<214 U
CARBON DISULFIDE	ug/kg	102200	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
CARBON TETRACHLORIDE	ug/kg	500	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
CHLOROBENZENE	ug/kg	10000	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
CHLOROETHANE	ug/kg	4E+06	<1.88 U	<1.9 U	<210 U	<246 U	<217 U	<338 U	<1680 U	<114000 U	<167000 U	<238 U	<214 U
CHLOROFORM	ug/kg	514	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
CHLOROMETHANE	ug/kg	3834	<3.77 U	<3.8 U	<420 U	<493 U	<434 U	<675 U	<3350 U	<227000 U	<334000 U	<476 U	<428 U
CIS-1,2-DICHLOROETHENE	ug/kg	7000	<0.942 U	<0.95 U	2040	5650	103 J	3330	1410 J	<56800 U	<83500 U	276 J	273 J
CIS-1,3-DICHLOROPROPENE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
DIBROMOCHLOROMETHANE	ug/kg	10000	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
DIBROMOMETHANE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
DICHLORODIFLUOROMETHANE	ug/kg	2E+06	<1.88 U	<1.9 U	<210 U	<246 U	<217 U	<338 U	<1680 U	<114000 U	<167000 U	<238 U	<214 U
ETHYLBENZENE	ug/kg	70000	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	85.3 J	<839 U	<56800 U	<83500 U	<119 U	<107 U
HEXACHLOROBUTADIENE	ug/kg	2044	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
ISOPROPYLBENZENE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
M,P-XYLENE	ug/kg	1E+06	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
METHYLENE CHLORIDE	ug/kg	500	0.966	1.53	<210 UJ	<246 U	<217 U	533 J	108000	2910000 J	6410000	<238 U	<214 U
NAPHTHALENE	ug/kg	204400	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
N-BUTYLBENZENE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
N-PROPYLBENZENE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
O-XYLENE	ug/kg	1E+06	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
P-ISOPROPYLTOLUENE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
SEC-BUTYLBENZENE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
STYRENE	ug/kg	10000	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	56800 J	139000 J	<119 U	<107 U
TERT-BUTYLBENZENE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
TETRACHLOROETHENE	ug/kg	500	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	1910	3420 J	41100 J	71300 J	<119 U	<107 U
TOLUENE	ug/kg	100000	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	92.7 J	<839 U	<56800 U	<83500 U	<119 U	<107 U
TRANS-1,2-DICHLOROETHENE	ug/kg	10000	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
TRANS-1,3-DICHLOROPROPENE	ug/kg		<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U	<119 U	<107 U
TRICHLOROETHENE	ug/kg	500	13.8	8.42	6230	14400	1550	11600	70400	3870000 J	15300000	7960	7670
TRICHLOROFLUOROMETHANE	ug/kg	3E+06	<1.88 U	<1.9 U	<210 U	<246 U	<217 U	<338 U	<1680 U	<114000 U	<167000 U	<238 U	<214 U
VINYL CHLORIDE	ug/kg	200	<1.88 U	<1.9 U	<210 U	<246 U	<217 U	<338 U	<1680 U	<114000 U	<167000 U	<238 U	<214 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

ug/kg - microgram per kilogram

J - estimated concentration

mg/kg - millgram per kilogram

NA - not available

U - below detection limit

RRS - Risk Reduction Standard for industrial land use - groundwater protection

Table 3-3: Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	RRS (GWP-Ind)	18CPT25 (31-32)260313 3/26/2013	18CPT26 (9-10)250313 3/25/2013	18CPT26 (22-23)250313 3/25/2013	18CPT27 (7-8)280313 3/27/2013	18CPT27 (17-18)280313 3/28/2013	18CPT27 (26-27)280313 3/28/2013	18CPT27 (33-34)280313 3/28/2013
Sample Location:			**Saturated**	**Unsaturated**	**Saturated**	**Unsatruated**	**Saturated**	**Saturated**	**Saturated**
Metals (6010C)									
IRON	mg/kg		NA	9380	7350	2490	2300	9080	7080
SELENIUM	mg/kg	5	<0.829 U	<4.15 U	<3.96 U	NA	NA	NA	NA
Metals (6020A)									
ARSENIC	mg/kg	5	0.765	1.75	0.89	NA	NA	NA	NA
BARIUM	mg/kg	200	86.6	80.3	9.76	NA	NA	NA	NA
CADMIUM	mg/kg	0.5	<0.119 U	<0.12 U	<0.112 U	NA	NA	NA	NA
CHROMIUM	mg/kg	10	2.05	5.92	4.3	NA	NA	NA	NA
LEAD	mg/kg	1.5	3.15	5.71	4.25	NA	NA	NA	NA
SILVER	mg/kg	51.1	<0.222 U	<0.242 U	<0.231 U	NA	NA	NA	NA
Perchlorate (6850)									
PERCHLORATE	ug/kg	7200	NA	2.7	100000	5.7	880	17000	35000
Hexavalent Chromium (7196A)									
HEXAVALENT CHROMIUM	mg/kg	10	<2.37 U	<11.9 U	<4.61 U	NA	NA	NA	NA
Mercury (7471A)									
MERCURY	mg/kg	0.2	<0.0229 U	0.0134 J	<0.0226 U	NA	NA	NA	NA
Volatile Organic Compounds (8260B)									
1,1,1,2-TETRACHLOROETHANE	ug/kg	11000	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
1,1,1-TRICHLOROETHANE	ug/kg	20000	<142 U	<0.927 U	<1.02 U	344 J	13300	23200	2280 J
1,1,2,2-TETRACHLOROETHANE	ug/kg	1430	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
1,1,2-TRICHLOROETHANE	ug/kg	500	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
1,1-DICHLOROETHANE	ug/kg	1E+06	<284 U	<1.85 U	<2.03 U	<244 U	<2320 U	<2150 U	<2390 U
1,1-DICHLOROETHENE	ug/kg	700	262 J	<0.927 U	<1.02 U	609 J	3120 J	5260 J	5230 J
1,1-DICHLOROPROPENE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
1,2,3-TRICHLOROBENZENE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
1,2,3-TRICHLOROPROPANE	ug/kg		<284 U	<1.85 U	<2.03 U	<244 U	<2320 U	<2150 U	<2390 U
1,2,4-TRICHLOROBENZENE	ug/kg	7000	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
1,2,4-TRIMETHYLBENZENE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	1420 J	<1200 U
1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	20	<567 U	<3.71 U	<4.07 U	<488 U	<4650 U	<4290 U	<4780 U
1,2-DIBROMOETHANE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
1,2-DICHLOROBENZENE	ug/kg	60000	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
1,2-DICHLOROETHANE	ug/kg	500	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
1,2-DICHLOROPROPANE	ug/kg	500	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
1,3,5-TRIMETHYLBENZENE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
1,3-DICHLOROBENZENE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
1,3-DICHLOROPROPANE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
1,4-DICHLOROBENZENE	ug/kg	7500	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
2,2-DICHLOROPROPANE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
2-BUTANONE	ug/kg	6E+06	<709 U	3.43 J	<5.08 U	<610 U	<5810 U	<5370 U	<5980 U
2-CHLOROTOLUENE	ug/kg	204400	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
2-HEXANONE	ug/kg		<709 U	<4.63 U	<5.08 U	<610 U	<5810 U	<5370 U	<5980 U
4-CHLOROTOLUENE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
4-METHYL-2-PENTANONE	ug/kg	817600	<709 U	<4.63 U	<5.08 U	<610 U	<5810 U	<5370 U	<5980 U
ACETONE	ug/kg	102200	<1420 U	35.1	<10.2 U	<1220 U	<11600 U	<10700 U	<12000 U

Table 3-3: Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	RRS (GWP-Ind)	18CPT25 (31-32)260313 3/26/2013	18CPT26 (9-10)250313 3/25/2013	18CPT26 (22-23)250313 3/25/2013	18CPT27 (7-8)280313 3/27/2013	18CPT27 (17-18)280313 3/28/2013	18CPT27 (26-27)280313 3/28/2013	18CPT27 (33-34)280313 3/28/2013
Sample Location:			Saturated	Unsaturated	Saturated	Unsatruated	Saturated	Saturated	Saturated
BENZENE	ug/kg	500	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
BROMOBENZENE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
BROMOCHLOROMETHANE	ug/kg		<284 U	<1.85 U	<2.03 U	<244 U	<2320 U	<2150 U	<2390 U
BROMODICHLOROMETHANE	ug/kg	10000	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
BROMOFORM	ug/kg	10000	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
BROMOMETHANE	ug/kg	4927	<284 U	<1.85 U	<2.03 U	<244 U	<2320 U	<2150 U	<2390 U
CARBON DISULFIDE	ug/kg	102200	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
CARBON TETRACHLORIDE	ug/kg	500	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
CHLOROBENZENE	ug/kg	10000	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
CHLOROETHANE	ug/kg	4E+06	<284 U	<1.85 U	<2.03 U	<244 U	<2320 U	<2150 U	<2390 U
CHLOROFORM	ug/kg	514	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	1080 J	<1200 U
CHLOROMETHANE	ug/kg	3834	<567 U	<3.71 U	<4.07 U	<488 U	<4650 U	<4290 U	<4780 U
CIS-1,2-DICHLOROETHENE	ug/kg	7000	211 J	<0.927 U	2.44 J	22800	2190 J	<1070 U	<1200 U
CIS-1,3-DICHLOROPROPENE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
DIBROMOCHLOROMETHANE	ug/kg	10000	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
DIBROMOMETHANE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
DICHLORODIFLUOROMETHANE	ug/kg	2E+06	<284 U	<1.85 U	<2.03 U	<244 U	<2320 U	<2150 U	<2390 U
ETHYLBENZENE	ug/kg	70000	<142 U	<0.927 U	<1.02 U	247 J	<1160 U	<1070 U	<1200 U
HEXACHLOROBUTADIENE	ug/kg	2044	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
ISOPROPYLBENZENE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
M,P-XYLENE	ug/kg	1E+06	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	1290 J	<1200 U
METHYLENE CHLORIDE	ug/kg	500	<284 U	<1.85 U	<2.03 U	3030	47600	4950000	2670000
NAPHTHALENE	ug/kg	204400	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	1010 J	<1200 U
N-BUTYLBENZENE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
N-PROPYLBENZENE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
O-XYLENE	ug/kg	1E+06	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	787 J	<1200 U
P-ISOPROPYLTOLUENE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
SEC-BUTYLBENZENE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
STYRENE	ug/kg	10000	<142 U	<0.927 U	<1.02 U	1140	7050	27500	2870 J
TERT-BUTYLBENZENE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
TETRACHLOROETHENE	ug/kg	500	<142 U	<0.927 U	<1.02 U	<122 U	767 J	1200 J	<1200 U
TOLUENE	ug/kg	100000	<142 U	<0.927 U	<1.02 U	171 J	<1160 U	1550 J	<1200 U
TRANS-1,2-DICHLOROETHENE	ug/kg	10000	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
TRANS-1,3-DICHLOROPROPENE	ug/kg		<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
TRICHLOROETHENE	ug/kg	500	13000	<0.927 U	0.977 J	28200	402000	2830000	460000
TRICHLOROFLUOROMETHANE	ug/kg	3E+06	<284 U	<1.85 U	<2.03 U	<244 U	<2320 U	<2150 U	<2390 U
VINYL CHLORIDE	ug/kg	200	<284 U	<1.85 U	<2.03 U	645	<2320 U	<2150 U	<2390 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

ug/kg - microgram per kilogram

J - estimated concentration

mg/kg - millgram per kilogram

NA - not available

U - below detection limit

RRS - Risk Reduction Standard for industrial land use - groundwater protection

Table 3-4: Discrete Groundwater Sample Results - LHAAP-18/24

Sample ID: / Sample Date:	Units	MCL	18CPT01, 69_5-70_5 3/6/2013	18CPT08 (64)130313 3/13/2013	18CPT10, 63-64', 180313 3/18/2013	18CPT12 (64)140313 3/14/2013	18CPT13, 35-36 3/5/2013	18CPT15, 14-18', 180313 3/18/2013	18CPT15, 25-29', 180313 3/18/2013	18CPT15, 38-42', 180313 3/18/2013	18CPT17 (30-34)220313 3/22/2013	18CPT18 (31-35)-200313 3/20/2013	18CPT18 (44-48)-210313 3/21/2013	18CPT18 (44-48)-210313D 3/21/2013	18CPT18 (45-49)-210313 3/21/2013
Metals (6010C)															
ALUMINUM	mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	mg/L	0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	mg/L	0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (6020A)															
ANTIMONY	mg/L	0.006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	mg/L	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	mg/L	0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	mg/L	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	mg/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/L	0.015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/L	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	mg/L	0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate (6850)															
PERCHLORATE	ug/L	26	21.3	66000	13800	1470	41600	2620	87.5	6.16	NA	12.8	1.35	1.4	7.12
Mercury (7470A)															
MERCURY	mg/L	0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (8260B)															
1,1,1,2-TETRACHLOROETHANE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,1-TRICHLOROETHANE	ug/L	200	<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2,2-TETRACHLOROETHANE	ug/L		<0.4 U	<1 U	<0.4 U	<2 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<40 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
1,1,2-TRICHLOROETHANE	ug/L	5	<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-DICHLOROETHANE	ug/L		<0.25 U	2.25 J	<0.25 U	<1.25 U	<0.25 U	0.166	<0.25 U	<0.25 U	<25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
1,1-DICHLOROETHENE	ug/L	7	<1 U	<2.5 U	<1 U	<5 U	<1 U	<1 U	<1 U	<1 U	<100 U	<1 U	<1 U	<1 U	<1 U
1,1-DICHLOROPROPENE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2,3-TRICHLOROBENZENE	ug/L	70	<0.3 U	<0.75 U	<0.3 U	<1.5 U	<0.3 U	<0.3 U	<0.3 U	<0.3 U	<30 U	<0.3 U	<0.3 U	<0.3 U	<0.3 U
1,2,3-TRICHLOROPROPANE	ug/L		<1 U	<2.5 U	<1 U	<5 U	<1 U	<1 U	<1 U	<1 U	<100 U	<1 U	<1 U	<1 U	<1 U
1,2,4-TRICHLOROBENZENE	ug/L		<0.4 U	<1 U	<0.4 U	<2 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<40 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
1,2,4-TRIMETHYLBENZENE	ug/L		0.537 J	<1.25 U	<0.5 U	<2.5 U	0.342 J	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-DIBROMO-3-CHLOROPROPANE	ug/L	0.2	<2 U	<5 U	<2 U	<10 U	<2 U	<2 U	<2 U	<2 U	<200 U	<2 U	<2 U	<2 U	<2 U
1,2-DIBROMOETHANE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-DICHLOROBENZENE	ug/L	600	<0.25 U	<0.625 U	<0.25 U	<1.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
1,2-DICHLOROETHANE	ug/L	5	<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-DICHLOROPROPANE	ug/L	5	<0.4 U	<1 U	<0.4 U	<2 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<40 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
1,3,5-TRIMETHYLBENZENE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,3-DICHLOROBENZENE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,3-DICHLOROPROPANE	ug/L		<0.4 U	<1 U	<0.4 U	<2 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<40 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
1,4-DICHLOROBENZENE	ug/L	75	<0.25 U	<0.625 U	<0.25 U	<1.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U

Table 3-4: Discrete Groundwater Sample Results - LHAAP-18/24

Sample ID: / Sample Date:	Units	MCL	18CPT01, 69_5-70_5 3/6/2013	18CPT08 (64)130313 3/13/2013	18CPT10, 63-64', 180313 3/18/2013	18CPT12 (64)140313 3/14/2013	18CPT13, 35-36 3/5/2013	18CPT15, 14-18', 180313 3/18/2013	18CPT15, 25-29', 180313 3/18/2013	18CPT15, 38-42', 180313 3/18/2013	18CPT17 (30-34)220313 3/22/2013	18CPT18 (31-35)-200313 3/20/2013	18CPT18 (44-48)-210313 3/21/2013	18CPT18 (44-48)-210313D 3/21/2013	18CPT18 (45-49)-210313 3/21/2013
2,2-DICHLOROPROPANE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
2-BUTANONE	ug/L		<5 U	<12.5 U	8.66	<25 U	3.2 J	<5 U	<5 U	<5 U	<500 U	<5 U	<5 U	<5 U	<5 U
2-CHLOROTOLUENE	ug/L		<0.25 U	<0.625 U	<0.25 U	<1.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
2-HEXANONE	ug/L		<5 U	<12.5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<5 U	<500 U	<5 U	<5 U	<5 U	<5 U
4-CHLOROTOLUENE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
4-METHYL-2-PENTANONE	ug/L		<5 U	<12.5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<5 U	<500 U	<5 U	<5 U	<5 U	<5 U
ACETONE	ug/L		<5 U	<12.5 U	30.1	<25 U	11.7	5	3.38	2.52	<500 U	5.52 J	<5 U	<5 U	6.51 J
BENZENE	ug/L	5	1.19	<0.625 U	0.286	<1.25 U	0.266 J	0.188	0.145	<0.25 U	<25 U	0.151 J	<0.25 U	<0.25 U	0.127 J
BROMOBENZENE	ug/L		<0.25 U	<0.625 U	<0.25 U	<1.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
BROMOCHLOROMETHANE	ug/L		<0.4 U	<1 U	<0.4 U	<2 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<40 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
BROMODICHLOROMETHANE	ug/L	80	<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
BROMOFORM	ug/L	80	<1 U	<2.5 U	<1 U	<5 U	<1 U	<1 U	<1 U	<1 U	<100 U	<1 U	<1 U	<1 U	<1 U
BROMOMETHANE	ug/L		<1 U	<2.5 U	<1 U	<5 U	<1 U	<1 U	<1 U	<1 U	<100 U	<1 U	<1 U	<1 U	<1 U
CARBON DISULFIDE	ug/L		<1 U	<2.5 U	<1 U	<5 U	<1 U	<1 U	<1 U	<1 U	<100 U	<1 U	<1 U	<1 U	<1 U
CARBON TETRACHLORIDE	ug/L	5	<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
CHLOROBENZENE	ug/L	100	<0.25 U	<0.625 U	<0.25 U	<1.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
CHLOROETHANE	ug/L		<1 U	<2.5 U	<1 U	<5 U	<1 U	<1 U	<1 U	<1 U	<100 U	<1 U	<1 U	<1 U	<1 U
CHLOROFORM	ug/L	80	<0.25 U	0.358 J	<0.25 U	<1.25 U	0.21 J	<0.25 U	<0.25 U	<0.25 U	<25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
CHLOROMETHANE	ug/L		<1 U	<2.5 U	<1 UJ	<5 U	<1 U	<1 UJ	<1 UJ	<1 UJ	<100 U	<1 U	<1 U	<1 U	<1 U
CIS-1,2-DICHLOROETHENE	ug/L	70	0.945 J	11.3	0.531	<2.5 U	0.925 J	1.19	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
CIS-1,3-DICHLOROPROPENE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
DIBROMOCHLOROMETHANE	ug/L	80	<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
DIBROMOMETHANE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
DICHLORODIFLUOROMETHANE	ug/L		<0.5 UJ	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
ETHYLBENZENE	ug/L	700	<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
HEXACHLOROBUTADIENE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
ISOPROPYLBENZENE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
m,p-Xylene	ug/L	10000	0.507 J	<2.5 U	0.757	<5 U	0.516 J	<1 U	<1 U	<1 U	<100 U	<1 U	<1 U	<1 U	<1 U
METHYLENE CHLORIDE	ug/L	5	182	0.697 J	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
NAPHTHALENE	ug/L		0.494 J	<1 U	<0.4 U	<2 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<40 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
N-BUTYLBENZENE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
N-PROPYLBENZENE	ug/L		<0.25 U	<0.625 U	<0.25 U	<1.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
O-XYLENE	ug/L	10000	0.425 J	<1.25 U	0.324	<2.5 U	0.288 J	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
P-ISOPROPYLTOLUENE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
SEC-BUTYLBENZENE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
STYRENE	ug/L	100	<0.25 U	<0.625 U	<0.25 U	<1.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
TERT-BUTYLBENZENE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
TETRACHLOROETHENE	ug/L	5	<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
TOLUENE	ug/L	1000	0.754 J	0.902 J	1.47	14.5	0.857 J	0.77	0.726	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
TRANS-1,2-DICHLOROETHENE	ug/L	100	<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
TRANS-1,3-DICHLOROPROPENE	ug/L		<1 U	<2.5 U	<1 U	<5 U	<1 U	<1 U	<1 U	<1 U	<100 U	<1 U	<1 U	<1 U	<1 U
TRICHLOROETHENE	ug/L	5	2.42	29.1	33.1	59.7	22.8	3.53	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
TRICHLOROFLUOROMETHANE	ug/L		<0.5 U	<1.25 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
VINYL CHLORIDE	ug/L	2	<0.5 U	5.56	<0.5 U	<2.5 U	<0.5 U	0.776	<0.5 U	<0.5 U	<50 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

ug/L - microgram per liter

J - estimated concentration

J+ - estimated high concentration

MCL - maximum contaminantl limit

mg/L - millgram per liter

NA - not available

U - below detection limit

Table 3-4: Discrete Groundwater Sample Results - LHAAP-18/24

Sample ID: / Sample Date:	Units	MCL	18CPT19 (30-34)220313 3/22/2013	18CPT21 (24-28)270313 3/27/2013	18CPT25 (28-32)260313 3/26/2013
Metals (6010C)					
ALUMINUM	mg/L		NA	NA	NA
BERYLLIUM	mg/L	0.004	NA	NA	NA
CALCIUM	mg/L		NA	NA	NA
IRON	mg/L		NA	NA	NA
MAGNESIUM	mg/L		NA	NA	NA
POTASSIUM	mg/L		NA	NA	NA
SELENIUM	mg/L	0.05	NA	NA	NA
SODIUM	mg/L		NA	NA	NA
Metals (6020A)					
ANTIMONY	mg/L	0.006	NA	NA	NA
ARSENIC	mg/L	0.01	NA	NA	NA
BARIUM	mg/L	2	NA	NA	NA
CADMIUM	mg/L	0.005	NA	NA	NA
CHROMIUM	mg/L	0.1	NA	NA	NA
COBALT	mg/L		NA	NA	NA
COPPER	mg/L	1.3	NA	NA	NA
LEAD	mg/L	0.015	NA	NA	NA
MANGANESE	mg/L		NA	NA	NA
NICKEL	mg/L		NA	NA	NA
SILVER	mg/L	0.1	NA	NA	NA
THALLIUM	mg/L	0.002	NA	NA	NA
VANADIUM	mg/L		NA	NA	NA
ZINC	mg/L		NA	NA	NA
Perchlorate (6850)					
PERCHLORATE	ug/L	26	10.1	4.72 J+	NA
Mercury (7470A)					
MERCURY	mg/L	0.002	NA	NA	NA
Volatile Organic Compounds (8260B)					
1,1,1,2-TETRACHLOROETHANE	ug/L		<5 U	<1 U	<1.67 U
1,1,1-TRICHLOROETHANE	ug/L	200	<5 U	104	<1.67 U
1,1,2,2-TETRACHLOROETHANE	ug/L		<4 U	<0.8 U	<1.33 U
1,1,2-TRICHLOROETHANE	ug/L	5	<5 U	<1 U	<1.67 U
1,1-DICHLOROETHANE	ug/L		<2.5 U	20.6	<0.833 U
1,1-DICHLOROETHENE	ug/L	7	<10 U	456	9.99
1,1-DICHLOROPROPENE	ug/L		<5 U	<1 U	<1.67 U
1,2,3-TRICHLOROBENZENE	ug/L	70	<3 U	<0.6 U	<1 U
1,2,3-TRICHLOROPROPANE	ug/L		<10 U	<2 U	<3.33 U
1,2,4-TRICHLOROBENZENE	ug/L		<4 U	<0.8 U	<1.33 U
1,2,4-TRIMETHYLBENZENE	ug/L		<5 U	<1 U	<1.67 U
1,2-DIBROMO-3-CHLOROPROPANE	ug/L	0.2	<20 U	<4 U	<6.67 U
1,2-DIBROMOETHANE	ug/L		<5 U	<1 U	<1.67 U
1,2-DICHLOROBENZENE	ug/L	600	<2.5 U	<0.5 U	<0.833 U
1,2-DICHLOROETHANE	ug/L	5	<5 U	<1 U	<1.67 U
1,2-DICHLOROPROPANE	ug/L	5	<4 U	<0.8 U	<1.33 U
1,3,5-TRIMETHYLBENZENE	ug/L		<5 U	<1 U	<1.67 U
1,3-DICHLOROBENZENE	ug/L		<5 U	<1 U	<1.67 U
1,3-DICHLOROPROPANE	ug/L		<4 U	<0.8 U	<1.33 U
1,4-DICHLOROBENZENE	ug/L	75	<2.5 U	<0.5 U	<0.833 U

Table 3-4: Discrete Groundwater Sample Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL	18CPT19 (30-34)220313 3/22/2013	18CPT21 (24-28)270313 3/27/2013	18CPT25 (28-32)260313 3/26/2013
2,2-DICHLOROPROPANE	ug/L		<5 U	<1 U	<1.67 U
2-BUTANONE	ug/L		<50 U	6.79 J	<16.7 U
2-CHLOROTOLUENE	ug/L		<2.5 U	<0.5 U	<0.833 U
2-HEXANONE	ug/L		<50 U	<10 U	<16.7 U
4-CHLOROTOLUENE	ug/L		<5 U	<1 U	<1.67 U
4-METHYL-2-PENTANONE	ug/L		<50 U	<10 U	<16.7 U
ACETONE	ug/L		<50 U	<10 U	8.6 J
BENZENE	ug/L	5	<2.5 U	0.294 J	<0.833 U
BROMOBENZENE	ug/L		<2.5 U	<0.5 U	<0.833 U
BROMOCHLOROMETHANE	ug/L		<4 U	<0.8 U	<1.33 U
BROMODICHLOROMETHANE	ug/L	80	<5 U	<1 U	<1.67 U
BROMOFORM	ug/L	80	<10 U	<2 U	<3.33 U
BROMOMETHANE	ug/L		<10 U	<2 U	<3.33 U
CARBON DISULFIDE	ug/L		<10 U	<2 U	<3.33 U
CARBON TETRACHLORIDE	ug/L	5	<5 U	<1 U	<1.67 U
CHLOROBENZENE	ug/L	100	<2.5 U	<0.5 U	<0.833 U
CHLOROETHANE	ug/L		<10 U	<2 U	<3.33 U
CHLOROFORM	ug/L	80	<2.5 U	4.79	<0.833 U
CHLOROMETHANE	ug/L		<10 U	<2 U	<3.33 U
CIS-1,2-DICHLOROETHENE	ug/L	70	<5 U	304	5.55
CIS-1,3-DICHLOROPROPENE	ug/L		<5 U	<1 U	<1.67 U
DIBROMOCHLOROMETHANE	ug/L	80	<5 U	<1 U	<1.67 U
DIBROMOMETHANE	ug/L		<5 U	<1 U	<1.67 U
DICHLORODIFLUOROMETHANE	ug/L		<5 U	<1 U	<1.67 U
ETHYLBENZENE	ug/L	700	<5 U	8.45	<1.67 U
HEXACHLOROBUTADIENE	ug/L		<5 U	<1 U	<1.67 U
ISOPROPYLBENZENE	ug/L		<5 U	<1 U	<1.67 U
m,p-Xylene	ug/L	10000	<10 U	4.69	<3.33 U
METHYLENE CHLORIDE	ug/L	5	<5 U	7270	<1.67 U
NAPHTHALENE	ug/L		<4 U	<0.8 U	<1.33 U
N-BUTYLBENZENE	ug/L		<5 U	<1 U	<1.67 U
N-PROPYLBENZENE	ug/L		<2.5 U	<0.5 U	<0.833 U
O-XYLENE	ug/L	10000	<5 U	0.763 J	<1.67 U
P-ISOPROPYLTOLUENE	ug/L		<5 U	<1 U	<1.67 U
SEC-BUTYLBENZENE	ug/L		<5 U	<1 U	<1.67 U
STYRENE	ug/L	100	<2.5 U	2.69	<0.833 U
TERT-BUTYLBENZENE	ug/L		<5 U	<1 U	<1.67 U
TETRACHLOROETHENE	ug/L	5	<5 U	226	<1.67 U
TOLUENE	ug/L	1000	<5 U	6.3	<1.67 U
TRANS-1,2-DICHLOROETHENE	ug/L	100	<5 U	12.6	<1.67 U
TRANS-1,3-DICHLOROPROPENE	ug/L		<10 U	<2 U	<3.33 U
TRICHLOROETHENE	ug/L	5	<5 U	11700	77.6
TRICHLOROFLUOROMETHANE	ug/L		<5 U	<1 U	<1.67 U
VINYL CHLORIDE	ug/L	2	<5 U	18.8	<1.67 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

ug/L - microgram per liter

J - estimated concentration

J+ - estimated high concentration

MCL - maximum contaminantl limit

mg/L - millgram per liter

NA - not available

U - below detection limit

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	C02-050913 5/9/2013	C02-050913-F 5/9/2013	C04-051113 5/11/2013	C04-051113-F 5/11/2013	C08-050713 5/7/2013	CO3-050713 5/7/2013	CO6-050713 5/7/2013	109-051013 5/11/2013	109-051013-F 5/11/2013	120-051113 5/11/2013	120-051113-F 5/11/2013
TOC (415.1)													
TOC	mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (6010C)													
ALUMINUM	mg/L	102.2	NA	<0.1 U	NA	<0.1 U	0.492	<0.1 U	0.0522 J	NA	<0.1 U	NA	2.8
BERYLLIUM	mg/L	0.004	NA	<0.01 U	NA	<0.01 U	<0.01 U	<0.01 U	<0.01 U	NA	<0.01 U	NA	<0.01 U
CALCIUM	mg/L		NA	18.2	NA	7.43	243	56.4	24.1	NA	21.3	NA	19.3
IRON	mg/L		NA	43.8	NA	7.81	0.79	87.5	69.3	NA	0.0535 J	NA	3.15
MAGNESIUM	mg/L		NA	12.8	NA	5.31	158	32	14.4	NA	15.5	NA	19.9
POTASSIUM	mg/L		NA	3.36	NA	1.58 J	1.35 J	3.49	4.24	NA	<1 U	NA	2.24
SELENIUM	mg/L	0.05	NA	<0.01 U	NA	<0.01 U	<0.01 U	<0.01 U	<0.01 U	NA	0.0177 J	NA	0.00629 J
SODIUM	mg/L		NA	78.7	NA	25.1	971	160	259	NA	175	NA	562
Metals (6020A)													
ANTIMONY	mg/L	0.006	NA	<0.001 U	NA	<0.001 U	0.00119 J	<0.001 U	<0.001 U	NA	0.000513 J	NA	0.00159 J
ARSENIC	mg/L	0.01	NA	0.00211	NA	0.000843 J	0.0169	0.00842	0.00523	NA	0.00183 J	NA	0.00515
BARIUM	mg/L	2	NA	0.379	NA	0.207	5.46	1.5	0.999	NA	0.303	NA	0.0909
CADMIUM	mg/L	0.005	NA	<0.0006 U	NA	<0.0006 U	<0.0006 U	<0.0006 U	<0.0006 U	NA	0.000357 J	NA	0.000725 J
CHROMIUM	mg/L	0.1	NA	<0.002 U	NA	<0.002 U	0.00248 J	0.00217 J	<0.002 U	NA	<0.002 U	NA	0.00562
COBALT	mg/L	6.132	NA	<0.001 U	NA	<0.001 U	0.00113 J	0.00273	0.00378	NA	<0.001 U	NA	0.0352
COPPER	mg/L	1.3	NA	<0.002 U	NA	<0.002 U	0.00352 J	0.00127 J	<0.002 U	NA	0.00121 J	NA	0.00377 J
LEAD	mg/L	0.015	NA	<0.001 U	NA	<0.001 U	0.000784 J	<0.001 U	<0.001 U	NA	<0.001 U	NA	0.00212
MANGANESE	mg/L	14.308	NA	1.27	NA	0.244	0.0176	1.81	0.987	NA	0.019	NA	0.412
NICKEL	mg/L	2.044	NA	<0.004 U	NA	<0.004 U	0.0145	0.00509 J	0.0043 J	NA	0.00425 J	NA	0.0311
SILVER	mg/L	0.1	NA	<0.001 U	NA	<0.001 U	<0.001 U	<0.001 U	<0.001 U	NA	<0.001 U	NA	<0.001 U
THALLIUM	mg/L	0.002	NA	<0.0002 U	NA	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	NA	0.000166 J	NA	<0.0002 U
VANADIUM	mg/L	0.7154	NA	<0.001 U	NA	<0.001 U	0.000859 J	<0.001 U	<0.001 U	NA	0.000698 J	NA	0.0088
ZINC	mg/L	30.66	NA	<0.025 U	NA	<0.025 UJ	0.03 J	0.0398 J	<0.025 U	NA	<0.025 U	NA	0.0679
Perchlorate (6850)													
PERCHLORATE	ug/L	72	<0.2 U	NA	<0.2 U	NA	<0.2 U	121	<0.2 U	50400	NA	95000	NA
Hexavalent Chromium (7196A)													
HEXAVALENT CHROMIUM	mg/L	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7470A)													
MERCURY	mg/L	0.002	NA	<0.0002 U	NA	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	NA	<0.0002 U	NA	<0.0002 U
Volatile Organic Compounds (8260B)													
1,1,1,2-TETRACHLOROETHANE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
1,1,1-TRICHLOROETHANE	ug/L	200	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
1,1,2,2-TETRACHLOROETHANE	ug/L		<0.4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	<4 U	NA	<0.4 U	NA
1,1,2-TRICHLOROETHANE	ug/L	5	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	9.12	NA
1,1-DICHLOROETHANE	ug/L		<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	2.89 J	NA	32.7	NA
1,1-DICHLOROETHENE	ug/L	7	<1 U	NA	<1 U	NA	<1 U	<1 U	<1 U	13.5 J	NA	211	NA
1,1-DICHLOROPROPENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
1,2,3-TRICHLOROBENZENE	ug/L		<0.3 U	NA	<0.3 U	NA	<0.3 U	<0.3 U	<0.3 U	<3 U	NA	<0.3 U	NA
1,2,3-TRICHLOROPROPANE	ug/L		<1 U	NA	<1 U	NA	<1 U	<1 U	<1 U	<10 U	NA	<1 U	NA
1,2,4-TRICHLOROBENZENE	ug/L	70	<0.4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	<4 U	NA	<0.4 U	NA
1,2,4-TRIMETHYLBENZENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	0.895 J	NA

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	C02-050913 5/9/2013	C02-050913-F 5/9/2013	C04-051113 5/11/2013	C04-051113-F 5/11/2013	C08-050713 5/7/2013	CO3-050713 5/7/2013	CO6-050713 5/7/2013	109-051013 5/11/2013	109-051013-F 5/11/2013	120-051113 5/11/2013	120-051113-F 5/11/2013
1,2-DIBROMO-3-CHLOROPROPANE	ug/L	0.2	<2 U	NA	<2 U	NA	<2 U	<2 U	<2 U	<20 U	NA	<2 U	NA
1,2-DIBROMOETHANE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
1,2-DICHLOROBENZENE	ug/L	600	<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<2.5 U	NA	0.929 J	NA
1,2-DICHLOROETHANE	ug/L	5	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	57.9	NA
1,2-DICHLOROPROPANE	ug/L	5	<0.4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	<4 U	NA	<0.4 U	NA
1,3,5-TRIMETHYLBENZENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	0.365 J	NA
1,3-DICHLOROBENZENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
1,3-DICHLOROPROPANE	ug/L		<0.4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	<4 U	NA	<0.4 U	NA
1,4-DICHLOROBENZENE	ug/L	75	<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<2.5 U	NA	<0.25 U	NA
2,2-DICHLOROPROPANE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
2-BUTANONE	ug/L		<5 UJ	NA	<5 U	NA	<5 U	<5 U	<5 U	<50 U	NA	<5 UJ	NA
2-CHLOROTOLUENE	ug/L		<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<2.5 U	NA	<0.25 U	NA
2-HEXANONE	ug/L		<5 UJ	NA	<5 U	NA	<5 U	<5 U	<5 U	<50 U	NA	<5 UJ	NA
4-CHLOROTOLUENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
4-METHYL-2-PENTANONE	ug/L		<5 U	NA	<5 U	NA	<5 U	<5 U	<5 U	<50 U	NA	<5 UJ	NA
ACETONE	ug/L		<5 UJ	NA	<5 U	NA	<5 U	<5 U	<5 U	<50 U	NA	<5 U	NA
BENZENE	ug/L	5	<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<2.5 U	NA	7.77	NA
BROMOBENZENE	ug/L		<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<2.5 U	NA	<0.25 U	NA
BROMOCHLOROMETHANE	ug/L		<0.4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	<4 U	NA	<0.4 U	NA
BROMODICHLOROMETHANE	ug/L	80	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
BROMOFORM	ug/L	80	<1 U	NA	<1 U	NA	<1 U	<1 U	<1 U	<10 U	NA	<1 U	NA
BROMOMETHANE	ug/L		<1 U	NA	<1 U	NA	<1 U	<1 U	<1 U	<10 U	NA	<1 U	NA
CARBON DISULFIDE	ug/L		<1 U	NA	<1 U	NA	<1 U	<1 U	<1 U	<10 U	NA	<1 U	NA
CARBON TETRACHLORIDE	ug/L	5	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
CHLOROBENZENE	ug/L	100	<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<2.5 U	NA	0.165 J	NA
CHLOROETHANE	ug/L		<1 U	NA	<1 U	NA	<1 U	<1 U	<1 U	<10 U	NA	<1 U	NA
CHLOROFORM	ug/L	80	<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	3.76 J	NA	68.5	NA
CHLOROMETHANE	ug/L		<1 UJ	NA	<1 U	NA	<1 U	<1 U	<1 U	<10 U	NA	<1 U	NA
CIS-1,2-DICHLOROETHENE	ug/L	70	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	233	NA	2260	NA
CIS-1,3-DICHLOROPROPENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
DIBROMOCHLOROMETHANE	ug/L	80	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
DIBROMOMETHANE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
DICHLORODIFLUOROMETHANE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
ETHYLBENZENE	ug/L	700	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
HEXACHLOROBUTADIENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
ISOPROPYLBENZENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
m,p-Xylene	ug/L	10000	<1 U	NA	<1 U	NA	<1 U	<1 U	<1 U	<10 U	NA	1.73 J	NA
METHYLENE CHLORIDE	ug/L	5	2.2	NA	<0.5 U	NA	<0.5 U	0.336 J	<0.5 U	<5 U	NA	168	NA
NAPHTHALENE	ug/L		<0.4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	<4 U	NA	0.979 J	NA
N-BUTYLBENZENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
N-PROPYLBENZENE	ug/L		<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<2.5 U	NA	0.201 J	NA
O-XYLENE	ug/L	10000	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	3.31	NA
P-ISOPROPYLTOLUENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
SEC-BUTYLBENZENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
STYRENE	ug/L	100	<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<2.5 U	NA	<0.25 U	NA
TERT-BUTYLBENZENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
TETRACHLOROETHENE	ug/L	5	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	11.8	NA
TOLUENE	ug/L	1000	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	0.623 J	NA
TRANS-1,2-DICHLOROETHENE	ug/L	100	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	4.99 J	NA	28.4	NA
TRANS-1,3-DICHLOROPROPENE	ug/L		<1 U	NA	<1 U	NA	<1 U	<1 U	<1 U	<10 U	NA	<1 U	NA
TRICHLOROETHENE	ug/L	5	0.906 J	NA	<0.5 U	NA	13.2	0.476 J	<0.5 U	1160	NA	24500	NA

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	C02-050913 5/9/2013	C02-050913-F 5/9/2013	C04-051113 5/11/2013	C04-051113-F 5/11/2013	C08-050713 5/7/2013	CO3-050713 5/7/2013	CO6-050713 5/7/2013	109-051013 5/11/2013	109-051013-F 5/11/2013	120-051113 5/11/2013	120-051113-F 5/11/2013
TRICHLOROFLUOROMETHANE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<5 U	NA	<0.5 U	NA
VINYL CHLORIDE	ug/L	2	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	9.84 J	NA	152	NA

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

ug/L - microgram per liter

J - estimated concentration

J+ - estimated high concentration

MCL - Maximum Contaminant Level

RRS - Risk Reduction Standard for industrial land use

mg/L - millgram per liter

NA - not available

TOC - total organic carbon

U - below detection limit

UJ - undetected estimated concentration

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	120-051113-FD 5/11/2013	123-051113 5/11/2013	126-051113 5/11/2013	129-051013 5/10/2013	129-051013-F 5/10/2013	18CPTMW01 DW-051613 5/16/2013	18CPTMW01 DWF-051613 5/16/2013	18CPTMW01 SW-051613 5/16/2013	18CPTMW04-051613 5/17/2013	18CPTMW04 SW-051613 5/16/2013	18CPTMW04 SW-051613-FD 5/16/2013
TOC (415.1)													
TOC	mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (6010C)													
ALUMINUM	mg/L	102.2	1.98	0.285	NA	NA	<0.1 U	NA	1.82	0.191 J	<0.1 U	NA	NA
BERYLLIUM	mg/L	0.004	<0.01 U	<0.01 U	NA	NA	<0.01 U	NA	<0.01 U	<0.01 U	<0.01 U	NA	NA
CALCIUM	mg/L		19.6	16.5	NA	NA	27.4	NA	7.29	7.41	46.7	NA	NA
IRON	mg/L		2.4	0.288	NA	NA	<0.1 U	NA	2.15	2.89	0.245	NA	NA
MAGNESIUM	mg/L		19.6	13.1	NA	NA	23	NA	3.39	4.04	36.8	NA	NA
POTASSIUM	mg/L		2.06	0.626 J	NA	NA	<1 U	NA	5	365	2.14	NA	NA
SELENIUM	mg/L	0.05	0.00859 J	<0.01 U	NA	NA	<0.01 U	NA	<0.01 U	<0.01 U	<0.01 U	NA	NA
SODIUM	mg/L		587	71.8	NA	NA	203	NA	204	192	311	NA	NA
Metals (6020A)													
ANTIMONY	mg/L	0.006	0.0011 J	0.00056 J	NA	NA	<0.001 U	NA	<0.001 UJ	<0.001 U	<0.001 U	NA	NA
ARSENIC	mg/L	0.01	0.00548	0.000786 J	NA	NA	0.00184 J	NA	0.00428	0.00298	0.00478	NA	NA
BARIUM	mg/L	2	0.0972	0.296	8.75	NA	0.761	NA	0.0892	0.259 J	1.27 J	NA	NA
CADMIUM	mg/L	0.005	0.000856 J	<0.0006 U	NA	NA	0.000543 J	NA	<0.0006 U	<0.0006 U	<0.0006 U	NA	NA
CHROMIUM	mg/L	0.1	0.00626	0.00117 J	NA	NA	0.00184 J	NA	<0.002 U	0.0237	<0.002 U	NA	NA
COBALT	mg/L	6.132	0.038	0.00203	NA	NA	<0.001 U	NA	0.002	0.000857 J	0.00225	NA	NA
COPPER	mg/L	1.3	0.00431	<0.002 U	NA	NA	0.00114 J	NA	0.00326 J	0.00187 J	<0.002 U	NA	NA
LEAD	mg/L	0.015	0.00239	<0.001 U	NA	NA	<0.001 U	NA	0.00252	<0.001 U	<0.001 U	NA	NA
MANGANESE	mg/L	14.308	0.449	0.00595	NA	NA	0.0127	NA	0.0144	0.0732	0.204	NA	NA
NICKEL	mg/L	2.044	0.0338	0.00401 J	NA	NA	0.0135	NA	0.0096	<0.004 U	0.00463 J	NA	NA
SILVER	mg/L	0.1	<0.001 U	<0.001 U	NA	NA	<0.001 U	NA	<0.001 U	<0.001 U	<0.001 U	NA	NA
THALLIUM	mg/L	0.002	<0.0002 U	<0.0002 U	NA	NA	<0.0002 U	NA	<0.0002 U	<0.0002 U	<0.0002 U	NA	NA
VANADIUM	mg/L	0.7154	0.00971	0.000953 J	NA	NA	<0.001 U	NA	0.00611	0.00785	<0.001 U	NA	NA
ZINC	mg/L	30.66	0.069	<0.025 U	NA	NA	0.0171 J	NA	0.0219 J	<0.025 U	<0.025 U	NA	NA
Perchlorate (6850)													
PERCHLORATE	ug/L	72	81500	17.1	NA	6750	NA	<0.2 U	NA	38.3	6.48	0.453	0.463
Hexavalent Chromium (7196A)													
HEXAVALENT CHROMIUM	mg/L	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7470A)													
MERCURY	mg/L	0.002	<0.0002 U	<0.0002 U	NA	NA	0.000225 J	NA	<0.0002 U	<0.0002 U	<0.0002 U	NA	NA
Volatile Organic Compounds (8260B)													
1,1,1,2-TETRACHLOROETHANE	ug/L		<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,1-TRICHLOROETHANE	ug/L	200	<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2,2-TETRACHLOROETHANE	ug/L		<0.4 U	<0.4 U	NA	<4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	<0.4 U
1,1,2-TRICHLOROETHANE	ug/L	5	9.36	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-DICHLOROETHANE	ug/L		33.5	<0.25 U	NA	<2.5 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<0.25 U
1,1-DICHLOROETHENE	ug/L	7	214	<1 U	NA	<10 U	NA	<1 U	NA	<1 U	1.83 J	<1 U	<1 U
1,1-DICHLOROPROPENE	ug/L		<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2,3-TRICHLOROBENZENE	ug/L		<0.3 U	<0.3 U	NA	<3 U	NA	<0.3 U	NA	<0.3 U	<0.3 U	<0.3 U	<0.3 U
1,2,3-TRICHLOROPROPANE	ug/L		<1 U	<1 U	NA	<10 U	NA	<1 U	NA	<1 U	<1 U	<1 U	<1 U
1,2,4-TRICHLOROBENZENE	ug/L	70	<0.4 U	<0.4 U	NA	<4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	<0.4 U
1,2,4-TRIMETHYLBENZENE	ug/L		0.87 J	<0.5 U	NA	<5 U	NA	<0.5 U	NA	0.555 J	<0.5 U	<0.5 U	<0.5 U

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	120-051113-FD 5/11/2013	123-051113 5/11/2013	126-051113 5/11/2013	129-051013 5/10/2013	129-051013-F 5/10/2013	18CPTMW01 DW-051613 5/16/2013	18CPTMW01 DWF-051613 5/16/2013	18CPTMW01 SW-051613 5/16/2013	18CPTMW04-051613 5/17/2013	18CPTMW04 SW-051613 5/16/2013	18CPTMW04 SW-051613-FD 5/16/2013
1,2-DIBROMO-3-CHLOROPROPANE	ug/L	0.2	<2 U	<2 U	NA	<20 U	NA	<2 U	NA	<2 U	<2 UJ	<2 UJ	<2 UJ
1,2-DIBROMOETHANE	ug/L		<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-DICHLOROBENZENE	ug/L	600	0.89 J	<0.25 U	NA	<2.5 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<0.25 U
1,2-DICHLOROETHANE	ug/L	5	57.8	0.635 J	NA	17.9	NA	<0.5 U	NA	<0.5 U	0.39 J	<0.5 U	<0.5 U
1,2-DICHLOROPROPANE	ug/L	5	0.256 J	<0.4 U	NA	<4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	<0.4 U
1,3,5-TRIMETHYLBENZENE	ug/L		0.366 J	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,3-DICHLOROBENZENE	ug/L		<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,3-DICHLOROPROPANE	ug/L		<0.4 U	<0.4 U	NA	<4 U	NA	<0.4 UJ	NA	<0.4 U	<0.4 U	<0.4 U	<0.4 U
1,4-DICHLOROBENZENE	ug/L	75	<0.25 U	<0.25 U	NA	<2.5 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<0.25 U
2,2-DICHLOROPROPANE	ug/L		<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
2-BUTANONE	ug/L		<5 UJ	<5 U	NA	<50 UJ	NA	<5 UJ	NA	<5 UJ	<5 UJ	<5 UJ	<5 UJ
2-CHLOROTOLUENE	ug/L		<0.25 U	<0.25 U	NA	<2.5 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<0.25 U
2-HEXANONE	ug/L		<5 UJ	<5 U	NA	<50 UJ	NA	<5 UJ	NA	<5 U	<5 UJ	<5 UJ	<5 UJ
4-CHLOROTOLUENE	ug/L		<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
4-METHYL-2-PENTANONE	ug/L		<5 UJ	<5 U	NA	<50 U	NA	<5 UJ	NA	<5 UJ	<5 UJ	<5 UJ	<5 UJ
ACETONE	ug/L		<5 U	<5 U	NA	<50 UJ	NA	<5 U	NA	<5 UJ	<5 UJ	<5 U	<5 UJ
BENZENE	ug/L	5	7.9	<0.25 U	NA	<2.5 U	NA	<0.25 U	NA	5.22 J+	<0.25 U	<0.25 UJ	<0.25 U
BROMOBENZENE	ug/L		<0.25 U	<0.25 U	NA	<2.5 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<0.25 U
BROMOCHLOROMETHANE	ug/L		<0.4 U	<0.4 U	NA	<4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	<0.4 U
BROMODICHLOROMETHANE	ug/L	80	<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
BROMOFORM	ug/L	80	<1 U	<1 U	NA	<10 U	NA	<1 U	NA	<1 U	<1 U	<1 U	<1 U
BROMOMETHANE	ug/L		<1 U	<1 U	NA	<10 U	NA	<1 UJ	NA	<1 U	<1 UJ	<1 UJ	<1 UJ
CARBON DISULFIDE	ug/L		<1 U	<1 U	NA	<10 U	NA	<1 U	NA	2.59 J+	<1 U	2.47	2.18
CARBON TETRACHLORIDE	ug/L	5	<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
CHLOROBENZENE	ug/L	100	0.173 J	<0.25 U	NA	<2.5 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<0.25 U
CHLOROETHANE	ug/L		<1 U	<1 U	NA	<10 U	NA	<1 U	NA	<1 U	<1 U	<1 U	<1 U
CHLOROFORM	ug/L	80	67.7	<0.25 U	NA	3.96 J	NA	<0.25 U	NA	0.635 J	<0.25 U	<0.25 U	<0.25 U
CHLOROMETHANE	ug/L		<1 U	<1 U	NA	<10 UJ	NA	<1 U	NA	<1 U	<1 UJ	<1 UJ	<1 UJ
CIS-1,2-DICHLOROETHENE	ug/L	70	2290	0.315 J	NA	5.76 J	NA	0.302 J	NA	19.1 J+	49.5	<0.5 U	<0.5 U
CIS-1,3-DICHLOROPROPENE	ug/L		<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
DIBROMOCHLOROMETHANE	ug/L	80	<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
DIBROMOMETHANE	ug/L		<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
DICHLORODIFLUOROMETHANE	ug/L		0.502 J	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
ETHYLBENZENE	ug/L	700	<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	0.536 J	<0.5 U	<0.5 U	<0.5 U
HEXACHLOROBUTADIENE	ug/L		<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
ISOPROPYLBENZENE	ug/L		<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
m,p-Xylene	ug/L	10000	1.85 J	<1 U	NA	<10 U	NA	<1 U	NA	2.34 J	<1 U	<1 U	<1 U
METHYLENE CHLORIDE	ug/L	5	170	<0.5 U	NA	3.37 J	NA	21.8	NA	2630	<0.5 U	0.785 J	0.791 J
NAPHTHALENE	ug/L		0.964 J	<0.4 U	NA	<4 U	NA	<0.4 U	NA	0.455 J	<0.4 U	<0.4 U	<0.4 U
N-BUTYLBENZENE	ug/L		<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
N-PROPYLBENZENE	ug/L		0.182 J	<0.25 U	NA	<2.5 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<0.25 U
O-XYLENE	ug/L	10000	3.35	<0.5 U	NA	<5 U	NA	<0.5 U	NA	1.76 J+	<0.5 U	<0.5 U	<0.5 U
P-ISOPROPYLTOLUENE	ug/L		<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
SEC-BUTYLBENZENE	ug/L		<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
STYRENE	ug/L	100	<0.25 U	<0.25 U	NA	<2.5 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	<0.25 U
TERT-BUTYLBENZENE	ug/L		<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
TETRACHLOROETHENE	ug/L	5	11.4	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	0.633 J	<0.5 U	<0.5 U
TOLUENE	ug/L	1000	0.668 J	<0.5 U	NA	<5 U	NA	<0.5 U	NA	4.51 J+	<0.5 U	<0.5 U	<0.5 U
TRANS-1,2-DICHLOROETHENE	ug/L	100	27.5	<0.5 U	NA	<5 U	NA	<0.5 U	NA	0.534 J	<0.5 U	<0.5 U	<0.5 U
TRANS-1,3-DICHLOROPROPENE	ug/L		<1 U	<1 U	NA	<10 U	NA	<1 U	NA	<1 U	<1 U	<1 U	<1 U
TRICHLOROETHENE	ug/L	5	24600	27.6	NA	1030	NA	2.29	NA	91.4 J+	86.6	<0.5 U	<0.5 U

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	120-051113-FD 5/11/2013	123-051113 5/11/2013	126-051113 5/11/2013	129-051013 5/10/2013	129-051013-F 5/10/2013	18CPTMW01 DW-051613 5/16/2013	18CPTMW01 DWF-051613 5/16/2013	18CPTMW01 SW-051613 5/16/2013	18CPTMW04-051613 5/17/2013	18CPTMW04 SW-051613 5/16/2013	18CPTMW04 SW-051613-FD 5/16/2013
TRICHLOROFLUOROMETHANE	ug/L		<0.5 U	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	<0.5 U
VINYL CHLORIDE	ug/L	2	154	<0.5 U	NA	<5 U	NA	<0.5 U	NA	<0.5 U	1.29	<0.5 U	<0.5 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

ug/L - microgram per liter

J - estimated concentration

J+ - estimated high concentration

MCL - Maximum Contaminant Level

RRS - Risk Reduction Standard for industrial land use

mg/L - millgram per liter

NA - not available

TOC - total organic carbon

U - below detection limit

UJ - undetected estimated concentration

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	18CPTMW04 SWF-051613 5/16/2013	18CPTMW04 SWF-051613-FD 5/16/2013	18CPTMW06- SW-051713 5/17/2013	18CPTMW06 SWF-051713 5/17/2013	18CPTMW07S W-081413 5/14/2013	18CPTMW08 DW-051713 5/17/2013	18CPTMW08 DWF-051713 5/17/2013	18CPTMW08 SW-060413 6/4/2013	18CPTMW10 DW-051713 5/17/2013	18CPTMW10 SW-060413 6/4/2013	18CPTMW10 SWF-060413 6/4/2013
TOC (415.1)													
TOC	mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (6010C)													
ALUMINUM	mg/L	102.2	<0.1 U	<0.1 U	NA	0.0851 J	0.263	NA	<0.1 U	0.115 J	<0.1 U	NA	<0.1 U
BERYLLIUM	mg/L	0.004	<0.01 U	<0.01 U	NA	<0.01 U	<0.01 U	NA	<0.01 U	<0.01 U	<0.01 U	NA	<0.01 U
CALCIUM	mg/L		17.1	18.1	NA	6.17	7.42	NA	9.02	32.8 J+	32.8	NA	41.7 J+
IRON	mg/L		0.0854 J	0.154 J	NA	<0.1 U	0.431	NA	<0.1 U	0.297 J+	16.2	NA	25.7 J+
MAGNESIUM	mg/L		12.5	13.2	NA	<0.5 U	2.38	NA	5.43	23.6 J+	12.5	NA	19.9 J+
POTASSIUM	mg/L		136	136	NA	674	211	NA	91.2	29.7	7.58	NA	46.5
SELENIUM	mg/L	0.05	<0.01 U	<0.01 U	NA	<0.01 U	<0.01 U	NA	<0.01 U	<0.01 U	<0.01 U	NA	<0.01 U
SODIUM	mg/L		131	135	NA	284	177	NA	134	154 J+	152	NA	162 J+
Metals (6020A)													
ANTIMONY	mg/L	0.006	<0.001 UJ	<0.001 UJ	NA	0.0011 J	0.000828 J	NA	0.000673 J	0.00066 J	<0.001 U	NA	<0.001 U
ARSENIC	mg/L	0.01	0.00229	0.00199 J	NA	0.0051	0.00625	NA	0.00134 J	0.00129 J	0.00421	NA	0.00336
BARIUM	mg/L	2	0.48 J	0.418 J	NA	0.258 J	0.156	NA	0.075	0.91	0.203	NA	0.454
CADMIUM	mg/L	0.005	<0.0006 U	<0.0006 U	NA	<0.0006 U	<0.0006 U	NA	<0.0006 U	<0.0006 U	<0.0006 U	NA	<0.0006 U
CHROMIUM	mg/L	0.1	<0.002 U	<0.002 U	NA	0.0702	0.775	NA	<0.002 U	0.00411	<0.002 U	NA	<0.002 U
COBALT	mg/L	6.132	0.000505 J	0.00058 J	NA	<0.001 U	0.000706 J	NA	<0.001 U	0.0189	0.00215	NA	0.00672
COPPER	mg/L	1.3	<0.002 U	<0.002 U	NA	0.00117 J	0.00144 J	NA	<0.002 U	0.00121 J	<0.002 U	NA	<0.002 U
LEAD	mg/L	0.015	<0.001 U	<0.001 U	NA	<0.001 U	<0.001 U	NA	<0.001 U	<0.001 U	<0.001 U	NA	<0.001 U
MANGANESE	mg/L	14.308	0.0718	0.0842	NA	0.00243 J	0.0409	NA	0.0256	0.841	0.426	NA	0.773
NICKEL	mg/L	2.044	<0.004 U	<0.004 U	NA	<0.004 U	0.00304 J	NA	<0.004 U	0.0165	0.00411 J	NA	0.00765 J
SILVER	mg/L	0.1	<0.001 U	<0.001 U	NA	<0.001 U	<0.001 U	NA	<0.001 U	<0.001 U	<0.001 U	NA	<0.001 U
THALLIUM	mg/L	0.002	<0.0002 U	<0.0002 U	NA	<0.0002 U	<0.0002 U	NA	<0.0002 U	<0.0002 U	<0.0002 U	NA	<0.0002 U
VANADIUM	mg/L	0.7154	<0.001 U	<0.001 U	NA	0.0129	<0.02 U	NA	<0.001 U	0.000803 J	<0.001 U	NA	<0.001 U
ZINC	mg/L	30.66	<0.025 U	<0.025 U	NA	<0.025 U	<0.025 U	NA	<0.025 U	0.0298 J	<0.025 U	NA	0.0249 J
Perchlorate (6850)													
PERCHLORATE	ug/L	72	NA	NA	6.56	NA	3.4	0.468	NA	39100	<0.2 U	16.6	NA
Hexavalent Chromium (7196A)													
HEXAVALENT CHROMIUM	mg/L	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7470A)													
MERCURY	mg/L	0.002	<0.0002 U	<0.0002 U	NA	<0.0002 U	<0.0002 U	NA	<0.0002 U	<0.0002 U	<0.0002 U	NA	<0.0002 U
Volatile Organic Compounds (8260B)													
1,1,1,2-TETRACHLOROETHANE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
1,1,1-TRICHLOROETHANE	ug/L	200	NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
1,1,2,2-TETRACHLOROETHANE	ug/L		NA	NA	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	NA
1,1,2-TRICHLOROETHANE	ug/L	5	NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
1,1-DICHLOROETHANE	ug/L		NA	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	3.12	<0.25 U	<0.25 U	NA
1,1-DICHLOROETHENE	ug/L	7	NA	NA	<1 U	NA	<1 U	<1 U	NA	0.86 J	<1 U	<1 U	NA
1,1-DICHLOROPROPENE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
1,2,3-TRICHLOROBENZENE	ug/L		NA	NA	<0.3 U	NA	<0.3 U	<0.3 U	NA	<0.3 U	<0.3 U	<0.3 U	NA
1,2,3-TRICHLOROPROPANE	ug/L		NA	NA	<1 U	NA	<1 U	<1 U	NA	<1 U	<1 U	<1 U	NA
1,2,4-TRICHLOROBENZENE	ug/L	70	NA	NA	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	NA
1,2,4-TRIMETHYLBENZENE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	18CPTMW04 SWF-051613 5/16/2013	18CPTMW04 SWF-051613-FD 5/16/2013	18CPTMW06- SW-051713 5/17/2013	18CPTMW06 SWF-051713 5/17/2013	18CPTMW07S W-081413 5/14/2013	18CPTMW08 DW-051713 5/17/2013	18CPTMW08 DWF-051713 5/17/2013	18CPTMW08 SW-060413 6/4/2013	18CPTMW10 DW-051713 5/17/2013	18CPTMW10 SW-060413 6/4/2013	18CPTMW10 SWF-060413 6/4/2013
1,2-DIBROMO-3-CHLOROPROPANE	ug/L	0.2	NA	NA	<2 U	NA	<2 U	<2 U	NA	<2 U	<2 U	<2 U	NA
1,2-DIBROMOETHANE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
1,2-DICHLOROBENZENE	ug/L	600	NA	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA
1,2-DICHLOROETHANE	ug/L	5	NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
1,2-DICHLOROPROPANE	ug/L	5	NA	NA	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	NA
1,3,5-TRIMETHYLBENZENE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
1,3-DICHLOROBENZENE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
1,3-DICHLOROPROPANE	ug/L		NA	NA	<0.4 U	NA	<0.4 U	<0.4 UJ	NA	<0.4 U	<0.4 UJ	<0.4 U	NA
1,4-DICHLOROBENZENE	ug/L	75	NA	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA
2,2-DICHLOROPROPANE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
2-BUTANONE	ug/L		NA	NA	<5 UJ	NA	<5 U	<5 UJ	NA	<5 U	<5 UJ	<5 U	NA
2-CHLOROTOLUENE	ug/L		NA	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA
2-HEXANONE	ug/L		NA	NA	<5 UJ	NA	<5 U	<5 UJ	NA	<5 U	<5 UJ	<5 U	NA
4-CHLOROTOLUENE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
4-METHYL-2-PENTANONE	ug/L		NA	NA	<5 UJ	NA	<5 U	<5 UJ	NA	<5 UJ	<5 UJ	<5 UJ	NA
ACETONE	ug/L		NA	NA	7.42 J	NA	<5 U	<5 UJ	NA	<5 U	<5 UJ	<5 U	NA
BENZENE	ug/L	5	NA	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA
BROMOBENZENE	ug/L		NA	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA
BROMOCHLOROMETHANE	ug/L		NA	NA	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	NA
BROMODICHLOROMETHANE	ug/L	80	NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
BROMOFORM	ug/L	80	NA	NA	<1 U	NA	<1 U	<1 U	NA	<1 U	<1 U	<1 U	NA
BROMOMETHANE	ug/L		NA	NA	<1 U	NA	<1 U	<1 UJ	NA	<1 U	<1 UJ	<1 U	NA
CARBON DISULFIDE	ug/L		NA	NA	1.26 J	NA	0.951 J	10.6	NA	0.515 J	<1 U	<1 U	NA
CARBON TETRACHLORIDE	ug/L	5	NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
CHLOROBENZENE	ug/L	100	NA	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA
CHLOROETHANE	ug/L		NA	NA	<1 U	NA	<1 U	<1 U	NA	<1 U	<1 U	<1 U	NA
CHLOROFORM	ug/L	80	NA	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	0.541 J	<0.25 U	<0.25 U	NA
CHLOROMETHANE	ug/L		NA	NA	<1 U	NA	<1 U	<1 U	NA	<1 U	<1 U	<1 U	NA
CIS-1,2-DICHLOROETHENE	ug/L	70	NA	NA	9.21	NA	<0.5 U	<0.5 U	NA	14.2	<0.5 U	<0.5 U	NA
CIS-1,3-DICHLOROPROPENE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
DIBROMOCHLOROMETHANE	ug/L	80	NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
DIBROMOMETHANE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
DICHLORODIFLUOROMETHANE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
ETHYLBENZENE	ug/L	700	NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
HEXACHLOROBUTADIENE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
ISOPROPYLBENZENE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
m,p-Xylene	ug/L	10000	NA	NA	<1 U	NA	<1 U	<1 U	NA	<1 U	<1 U	<1 U	NA
METHYLENE CHLORIDE	ug/L	5	NA	NA	597	NA	<0.5 U	0.402 J	NA	3.37	<0.5 U	<0.5 U	NA
NAPHTHALENE	ug/L		NA	NA	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	NA
N-BUTYLBENZENE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
N-PROPYLBENZENE	ug/L		NA	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA
O-XYLENE	ug/L	10000	NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
P-ISOPROPYLTOLUENE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
SEC-BUTYLBENZENE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
STYRENE	ug/L	100	NA	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA
TERT-BUTYLBENZENE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
TETRACHLOROETHENE	ug/L	5	NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
TOLUENE	ug/L	1000	NA	NA	<0.5 U	NA	<0.5 U	0.9 J	NA	<0.5 U	0.277 J	<0.5 U	NA
TRANS-1,2-DICHLOROETHENE	ug/L	100	NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
TRANS-1,3-DICHLOROPROPENE	ug/L		NA	NA	<1 U	NA	<1 U	<1 U	NA	<1 U	<1 U	<1 U	NA
TRICHLOROETHENE	ug/L	5	NA	NA	30.9	NA	0.861 J	0.271 J	NA	58.3	7.56	23.9	NA

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	18CPTMW04 SWF-051613 5/16/2013	18CPTMW04 SWF-051613-FD 5/16/2013	18CPTMW06- SW-051713 5/17/2013	18CPTMW06 SWF-051713 5/17/2013	18CPTMW07S W-081413 5/14/2013	18CPTMW08 DW-051713 5/17/2013	18CPTMW08 DWF-051713 5/17/2013	18CPTMW08 SW-060413 6/4/2013	18CPTMW10 DW-051713 5/17/2013	18CPTMW10 SW-060413 6/4/2013	18CPTMW10 SWF-060413 6/4/2013
TRICHLOROFLUOROMETHANE	ug/L		NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA
VINYL CHLORIDE	ug/L	2	NA	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	9.99	<0.5 U	<0.5 U	NA

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

ug/L - microgram per liter

J - estimated concentration

J+ - estimated high concentration

MCL - Maximum Contaminant Level

RRS - Risk Reduction Standard for industrial land use

mg/L - millgram per liter

NA - not available

TOC - total organic carbon

U - below detection limit

UJ - undetected estimated concentration

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	18CPTMW12 DW-060413 6/4/2013	18CPTMW12 SW-060413 6/4/2013	18CPTMW12 SWF-060413 6/4/2013	18CPTMW14-051313 5/13/2013	18CPTMW15-051413 5/14/2013	18CPTMW16-060413 6/4/2013	18CPTMW16F-060413 6/4/2013	18CPTMW18-051513 5/15/2013	18CPTMW19-051313 5/13/2013	18CPTMW19F-051313 5/13/2013	18CPTMW22-051513 5/15/2013
TOC (415.1)													
TOC	mg/L		NA	NA	NA	NA	NA	NA	NA	0.652 J	NA	NA	NA
Metals (6010C)													
ALUMINUM	mg/L	102.2	<0.1 U	NA	<0.1 U	<0.1 U	0.282	NA	<0.1 U	<0.1 U	NA	1.2	<0.1 U
BERYLLIUM	mg/L	0.004	<0.01 U	NA	<0.01 U	<0.01 U	<0.01 U	NA	<0.01 U	<0.01 U	NA	<0.01 U	<0.01 U
CALCIUM	mg/L		16.6 J	NA	42.7 J	333	25.8	NA	10.2 J+	350	NA	1.51	37.6
IRON	mg/L		1.83	NA	16.8	0.0708 J	1.08	NA	6.64 J+	0.124 J	NA	2.11	0.0654 J
MAGNESIUM	mg/L		9.11	NA	26.7	195	25	NA	5.87 J+	265	NA	1.02	31.4
POTASSIUM	mg/L		31.7	NA	28.2	8.42	6.1	NA	2.15	3.8	NA	0.56 J	1.38 J
SELENIUM	mg/L	0.05	<0.01 U	NA	<0.01 U	<0.01 U	<0.01 U	NA	<0.01 U	<0.01 U	NA	<0.01 U	<0.01 U
SODIUM	mg/L		162 J	NA	204 J	599	309	NA	60.6 J+	1180	NA	16	145
Metals (6020A)													
ANTIMONY	mg/L	0.006	<0.001 U	NA	<0.001 U	<0.001 U	<0.001 U	NA	<0.001 U	<0.001 U	NA	<0.001 U	<0.001 U
ARSENIC	mg/L	0.01	0.00319	NA	0.0125	0.0212	0.00341	NA	0.00226	0.0152	NA	0.00172 J	0.002
BARIUM	mg/L	2	0.196	NA	0.78	8.74	0.514	NA	0.165	0.637	NA	0.056	0.472 J
CADMIUM	mg/L	0.005	<0.0006 U	NA	<0.0006 U	0.000603 J	0.000343 J	NA	<0.0006 U	<0.0006 U	NA	<0.0006 U	<0.0006 U
CHROMIUM	mg/L	0.1	<0.002 U	NA	<0.002 U	0.0228	<0.002 U	NA	<0.002 U	0.00235 J	NA	0.00681	<0.002 U
COBALT	mg/L	6.132	0.000839 J	NA	0.0169	0.0159	0.102	NA	0.00172 J	0.0212	NA	0.000999 J	0.00118 J
COPPER	mg/L	1.3	<0.002 U	NA	<0.002 U	0.00381 J	0.00386 J	NA	<0.002 U	0.00264 J	NA	0.00184 J	<0.002 U
LEAD	mg/L	0.015	<0.001 U	NA	<0.001 U	<0.001 U	<0.001 U	NA	<0.001 U	<0.001 U	NA	0.001 J	<0.001 U
MANGANESE	mg/L	14.308	0.22	NA	1.26	0.571	0.833	NA	0.216	2.1	NA	0.027	0.103
NICKEL	mg/L	2.044	0.00298 J	NA	0.0111	0.0352	0.0542	NA	<0.004 U	0.0266	NA	0.00344 J	0.00318 J
SILVER	mg/L	0.1	<0.001 U	NA	<0.001 U	<0.001 U	<0.001 U	NA	<0.001 U	<0.001 U	NA	<0.001 U	<0.001 U
THALLIUM	mg/L	0.002	<0.0002 U	NA	<0.0002 U	<0.0002 U	<0.0002 U	NA	<0.0002 U	<0.0002 U	NA	<0.0002 U	<0.0002 U
VANADIUM	mg/L	0.7154	0.000598 J	NA	<0.001 U	<0.001 U	<0.001 U	NA	<0.001 U	<0.002 U	NA	0.00416	<0.001 U
ZINC	mg/L	30.66	<0.025 U	NA	0.0274 J	0.0255 J	0.066	NA	<0.025 U	0.0228 J	NA	0.0187 J	<0.025 U
Perchlorate (6850)													
PERCHLORATE	ug/L	72	0.385 J	<0.2 U	NA	1560	825	<0.2 U	NA	0.602	13.2	NA	118000
Hexavalent Chromium (7196A)													
HEXAVALENT CHROMIUM	mg/L	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7470A)													
MERCURY	mg/L	0.002	<0.0002 U	NA	<0.0002 U	<0.0002 U	<0.0002 U	NA	<0.0002 U	<0.0002 U	NA	<0.0002 U	<0.0002 U
Volatile Organic Compounds (8260B)													
1,1,1,2-TETRACHLOROETHANE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
1,1,1-TRICHLOROETHANE	ug/L	200	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
1,1,2,2-TETRACHLOROETHANE	ug/L		<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U
1,1,2-TRICHLOROETHANE	ug/L	5	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
1,1-DICHLOROETHANE	ug/L		<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U
1,1-DICHLOROETHENE	ug/L	7	<1 U	<1 U	NA	0.895 J	<1 U	<1 U	NA	<1 U	<1 U	NA	3.17
1,1-DICHLOROPROPENE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
1,2,3-TRICHLOROBENZENE	ug/L		<0.3 U	<0.3 U	NA	<0.3 U	<0.3 U	<0.3 U	NA	<0.3 U	<0.3 U	NA	<0.3 U
1,2,3-TRICHLOROPROPANE	ug/L		<1 U	<1 U	NA	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA	<1 UJ
1,2,4-TRICHLOROBENZENE	ug/L	70	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U
1,2,4-TRIMETHYLBENZENE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	18CPTMW12 DW-060413 6/4/2013	18CPTMW12 SW-060413 6/4/2013	18CPTMW12 SWF-060413 6/4/2013	18CPTMW14- 051313 5/13/2013	18CPTMW15- 051413 5/14/2013	18CPTMW16- 060413 6/4/2013	18CPTMW16F- 060413 6/4/2013	18CPTMW18- 051513 5/15/2013	18CPTMW19- 051313 5/13/2013	18CPTMW19F- 051313 5/13/2013	18CPTMW22- 051513 5/15/2013
1,2-DIBROMO-3-CHLOROPROPANE	ug/L	0.2	<2 U	<2 U	NA	<2 U	<2 U	<2 U	NA	<2 U	<2 U	NA	<2 U
1,2-DIBROMOETHANE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
1,2-DICHLOROBENZENE	ug/L	600	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U
1,2-DICHLOROETHANE	ug/L	5	<0.5 U	<0.5 U	NA	1.31	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	0.278 J
1,2-DICHLOROPROPANE	ug/L	5	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U
1,3,5-TRIMETHYLBENZENE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
1,3-DICHLOROBENZENE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
1,3-DICHLOROPROPANE	ug/L		<0.4 U	<0.4 U	NA	<0.4 U	<0.4 UJ	<0.4 U	NA	<0.4 UJ	<0.4 U	NA	<0.4 U
1,4-DICHLOROBENZENE	ug/L	75	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U
2,2-DICHLOROPROPANE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
2-BUTANONE	ug/L		<5 U	<5 U	NA	<5 U	<5 UJ	<5 U	NA	<5 UJ	<5 U	NA	<5 UJ
2-CHLOROTOLUENE	ug/L		<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U
2-HEXANONE	ug/L		<5 U	<5 U	NA	<5 U	<5 UJ	<5 U	NA	<5 UJ	<5 U	NA	<5 U
4-CHLOROTOLUENE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 UJ
4-METHYL-2-PENTANONE	ug/L		<5 U	<5 U	NA	<5 U	<5 UJ	<5 UJ	NA	<5 UJ	<5 U	NA	<5 UJ
ACETONE	ug/L		<5 U	<5 U	NA	<5 U	<5 U	<5 U	NA	<5 UJ	<5 UJ	NA	<5 UJ
BENZENE	ug/L	5	<0.25 U	<0.25 U	NA	1.23	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U
BROMOBENZENE	ug/L		<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U
BROMOCHLOROMETHANE	ug/L		<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U
BROMODICHLOROMETHANE	ug/L	80	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
BROMOFORM	ug/L	80	<1 U	<1 U	NA	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA	<1 UJ
BROMOMETHANE	ug/L		<1 U	<1 U	NA	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA	<1 UJ
CARBON DISULFIDE	ug/L		<1 U	1.92 J	NA	<1 U	<1 U	<1 U	NA	0.833 J	<1 U	NA	<1 U
CARBON TETRACHLORIDE	ug/L	5	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
CHLOROBENZENE	ug/L	100	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U
CHLOROETHANE	ug/L		<1 U	<1 U	NA	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA	<1 U
CHLOROFORM	ug/L	80	<0.25 U	<0.25 U	NA	6.2	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA	1.93
CHLOROMETHANE	ug/L		<1 U	<1 U	NA	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA	<1 U
CIS-1,2-DICHLOROETHENE	ug/L	70	<0.5 U	<0.5 U	NA	<0.5 U	0.712 J	<0.5 U	NA	<0.5 U	<0.5 U	NA	0.407 J
CIS-1,3-DICHLOROPROPENE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
DIBROMOCHLOROMETHANE	ug/L	80	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
DIBROMOMETHANE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
DICHLORODIFLUOROMETHANE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
ETHYLBENZENE	ug/L	700	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
HEXACHLOROBUTADIENE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
ISOPROPYLBENZENE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
m,p-Xylene	ug/L	10000	<1 U	<1 U	NA	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA	<1 U
METHYLENE CHLORIDE	ug/L	5	<0.5 U	0.319 J	NA	0.448 J	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
NAPHTHALENE	ug/L		<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U
N-BUTYLBENZENE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
N-PROPYLBENZENE	ug/L		<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U
O-XYLENE	ug/L	10000	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
P-ISOPROPYLTOLUENE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
SEC-BUTYLBENZENE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
STYRENE	ug/L	100	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U
TERT-BUTYLBENZENE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
TETRACHLOROETHENE	ug/L	5	<0.5 U	<0.5 U	NA	0.864 J	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
TOLUENE	ug/L	1000	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
TRANS-1,2-DICHLOROETHENE	ug/L	100	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	3.91
TRANS-1,3-DICHLOROPROPENE	ug/L		<1 U	<1 U	NA	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA	<1 U
TRICHLOROETHENE	ug/L	5	<0.5 U	4.31	NA	413	3.58	<0.5 U	NA	<0.5 U	<0.5 U	NA	66.4 J

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	18CPTMW12 DW-060413 6/4/2013	18CPTMW12 SW-060413 6/4/2013	18CPTMW12 SWF-060413 6/4/2013	18CPTMW14-051313 5/13/2013	18CPTMW15-051413 5/14/2013	18CPTMW16-060413 6/4/2013	18CPTMW16F-060413 6/4/2013	18CPTMW18-051513 5/15/2013	18CPTMW19-051313 5/13/2013	18CPTMW19F-051313 5/13/2013	18CPTMW22-051513 5/15/2013
TRICHLOROFLUOROMETHANE	ug/L		<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U
VINYL CHLORIDE	ug/L	2	<0.5 U	<0.5 U	NA	<0.5 U	0.504 J	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

ug/L - microgram per liter

J - estimated concentration

J+ - estimated high concentration

MCL - Maximum Contaminant Level

RRS - Risk Reduction Standard for industrial land use

mg/L - millgram per liter

NA - not available

TOC - total organic carbon

U - below detection limit

UJ - undetected estimated concentration

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	18CPTMW23-051313 5/13/2013	18CPTMW23-051313-FD 5/13/2013	18CPTMW24-051313 5/14/2013	18WW08-051513 5/15/2013	18WW09-050913 5/9/2013	18WW18-050713F 5/7/2013	18WW20-050913 5/9/2013	18WW20-050913F 5/9/2013	18WW22-051313 5/13/2013	MW10-050813 5/8/2013	MW10-050813F 5/8/2013
TOC (415.1)													
TOC	mg/L		NA	NA	NA	4.05	NA	NA	NA	NA	NA	NA	NA
Metals (6010C)													
ALUMINUM	mg/L	102.2	0.445 J	0.239 J	<0.1 U	<0.1 U	<0.1 U	<0.1 U	NA	<0.1 U	<0.1 U	NA	<0.1 U
BERYLLIUM	mg/L	0.004	<0.01 U	<0.01 U	<0.01 U	<0.01 U	<0.01 U	<0.01 U	NA	<0.01 U	<0.01 U	NA	<0.01 U
CALCIUM	mg/L		15.3	15.2	341	21.6	15.7	38.1	NA	2.11	11.7	NA	18.1
IRON	mg/L		9.31	9.81	0.118 J	1.86	33.6	77.5	NA	1.44	0.442	NA	11.3
MAGNESIUM	mg/L		9.4	9.27	258	31.4	9.51	24.9	NA	1.45	4.23	NA	10.3
POTASSIUM	mg/L		18.9	19.1	16.5	1.46 J	1.88 J	2.98	NA	1.55 J	12.2	NA	3.71
SELENIUM	mg/L	0.05	<0.01 U	<0.01 U	<0.01 U	<0.01 U	<0.01 U	<0.01 U	NA	<0.01 U	<0.01 U	NA	<0.01 U
SODIUM	mg/L		100	110	972	348	49.5	133	NA	24.1	30.3	NA	96.4
Metals (6020A)													
ANTIMONY	mg/L	0.006	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	NA	<0.001 U	<0.001 U	NA	<0.001 U
ARSENIC	mg/L	0.01	0.00239	0.00299	0.028	0.00369	0.00218	0.00864	NA	<0.001 U	0.00264	NA	0.00198 J
BARIUM	mg/L	2	0.292	0.288	8.63	0.0425	0.257	0.989	NA	0.0811	0.153	NA	0.814
CADMIUM	mg/L	0.005	<0.0006 U	<0.0006 U	0.000524 J	<0.0006 U	<0.0006 U	<0.0006 U	NA	<0.0006 U	<0.0006 U	NA	<0.0006 U
CHROMIUM	mg/L	0.1	0.00306 J	0.00294 J	0.0134	0.00826	0.0366	0.00129 J	NA	<0.002 U	0.0056	NA	0.0309
COBALT	mg/L	6.132	0.0281	0.0273	0.00632	0.0376	0.000669 J	<0.001 U	NA	<0.001 U	0.000684 J	NA	0.00127 J
COPPER	mg/L	1.3	0.00136 J	0.00129 J	0.00375 J	0.00174 J	0.00195 J	0.00104 J	NA	<0.002 U	<0.002 U	NA	0.00575
LEAD	mg/L	0.015	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	NA	<0.001 U	<0.001 U	NA	<0.001 U
MANGANESE	mg/L	14.308	0.501	0.494	0.332	1.75	0.613 J	1.4	NA	0.0492	0.0228	NA	0.973
NICKEL	mg/L	2.044	0.0275	0.0266	0.0297	0.0317	0.0179	0.00551 J	NA	<0.004 U	0.0021 J	NA	0.0646
SILVER	mg/L	0.1	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	NA	<0.001 U	<0.001 U	NA	<0.001 U
THALLIUM	mg/L	0.002	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	NA	<0.0002 U	<0.0002 U	NA	<0.0002 U
VANADIUM	mg/L	0.7154	0.00145 J	0.00169 J	<0.05 U	<0.001 U	<0.001 U	<0.001 U	NA	<0.001 U	0.00466	NA	<0.001 U
ZINC	mg/L	30.66	0.0389 J	0.0362 J	0.0136 J	0.0245 J	<0.025 U	0.0149 J	NA	<0.025 U	<0.025 U	NA	<0.025 U
Perchlorate (6850)													
PERCHLORATE	ug/L	72	8950	8800	710	51.2	<0.2 U	<0.2 U	<0.2 U	NA	0.234 J	<0.2 U	NA
Hexavalent Chromium (7196A)													
HEXAVALENT CHROMIUM	mg/L	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (7470A)													
MERCURY	mg/L	0.002	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	NA	<0.0002 U	<0.0002 U	NA	<0.0002 U
Volatile Organic Compounds (8260B)													
1,1,1,2-TETRACHLOROETHANE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
1,1,1-TRICHLOROETHANE	ug/L	200	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
1,1,2,2-TETRACHLOROETHANE	ug/L		<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	NA
1,1,2-TRICHLOROETHANE	ug/L	5	0.767 J	0.802 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
1,1-DICHLOROETHANE	ug/L		1.07	1.05	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA
1,1-DICHLOROETHENE	ug/L	7	9.18	9.14	<1 U	<1 U	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA
1,1-DICHLOROPROPENE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
1,2,3-TRICHLOROBENZENE	ug/L		<0.3 U	<0.3 U	<0.3 U	<0.3 U	<0.3 U	<0.3 U	<0.3 U	NA	<0.3 U	<0.3 U	NA
1,2,3-TRICHLOROPROPANE	ug/L		<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA
1,2,4-TRICHLOROBENZENE	ug/L	70	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	NA
1,2,4-TRIMETHYLBENZENE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	18CPTMW23-051313 5/13/2013	18CPTMW23-051313-FD 5/13/2013	18CPTMW24-051313 5/14/2013	18WW08-051513 5/15/2013	18WW09-050913 5/9/2013	18WW18-050713F 5/7/2013	18WW20-050913 5/9/2013	18WW20-050913F 5/9/2013	18WW22-051313 5/13/2013	MW10-050813 5/8/2013	MW10-050813F 5/8/2013
1,2-DIBROMO-3-CHLOROPROPANE	ug/L	0.2	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 U	<2 U	<2 U	NA	<2 U	<2 U	NA
1,2-DIBROMOETHANE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
1,2-DICHLOROBENZENE	ug/L	600	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA
1,2-DICHLOROETHANE	ug/L	5	197	202	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
1,2-DICHLOROPROPANE	ug/L	5	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	NA
1,3,5-TRIMETHYLBENZENE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
1,3-DICHLOROBENZENE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
1,3-DICHLOROPROPANE	ug/L		<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	NA
1,4-DICHLOROBENZENE	ug/L	75	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA
2,2-DICHLOROPROPANE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
2-BUTANONE	ug/L		<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	NA	<5 U	<5 U	NA
2-CHLOROTOLUENE	ug/L		<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA
2-HEXANONE	ug/L		<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	NA	<5 U	<5 U	NA
4-CHLOROTOLUENE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
4-METHYL-2-PENTANONE	ug/L		<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	NA	<5 U	<5 U	NA
ACETONE	ug/L		2.65 J	2.85 J	<5 UJ	<5 UJ	<5 U	<5 U	<5 U	NA	<5 UJ	<5 U	NA
BENZENE	ug/L	5	1.45	1.46	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA
BROMOBENZENE	ug/L		<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA
BROMOCHLOROMETHANE	ug/L		<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	NA
BROMODICHLOROMETHANE	ug/L	80	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
BROMOFORM	ug/L	80	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA
BROMOMETHANE	ug/L		<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA
CARBON DISULFIDE	ug/L		1.4 J	1.02 J	<1 U	<1 U	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA
CARBON TETRACHLORIDE	ug/L	5	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
CHLOROBENZENE	ug/L	100	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA
CHLOROETHANE	ug/L		<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA
CHLOROFORM	ug/L	80	4.86	4.95	0.144 J	0.452 J	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA
CHLOROMETHANE	ug/L		<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA
CIS-1,2-DICHLOROETHENE	ug/L	70	65.6	66.3	0.53 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
CIS-1,3-DICHLOROPROPENE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
DIBROMOCHLOROMETHANE	ug/L	80	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
DIBROMOMETHANE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
DICHLORODIFLUOROMETHANE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
ETHYLBENZENE	ug/L	700	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
HEXACHLOROBUTADIENE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
ISOPROPYLBENZENE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
m,p-Xylene	ug/L	10000	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA
METHYLENE CHLORIDE	ug/L	5	0.375 J	0.39 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
NAPHTHALENE	ug/L		<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	NA	<0.4 U	<0.4 U	NA
N-BUTYLBENZENE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
N-PROPYLBENZENE	ug/L		<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA
O-XYLENE	ug/L	10000	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
P-ISOPROPYLTOLUENE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
SEC-BUTYLBENZENE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
STYRENE	ug/L	100	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	NA	<0.25 U	<0.25 U	NA
TERT-BUTYLBENZENE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
TETRACHLOROETHENE	ug/L	5	1.06	1.07	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
TOLUENE	ug/L	1000	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
TRANS-1,2-DICHLOROETHENE	ug/L	100	3.19	3.13	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
TRANS-1,3-DICHLOROPROPENE	ug/L		<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	NA	<1 U	<1 U	NA
TRICHLOROETHENE	ug/L	5	3100	3040	68.8	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	0.698 J	NA

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	18CPTMW23-051313 5/13/2013	18CPTMW23-051313-FD 5/13/2013	18CPTMW24-051313 5/14/2013	18WW08-051513 5/15/2013	18WW09-050913 5/9/2013	18WW18-050713F 5/7/2013	18WW20-050913 5/9/2013	18WW20-050913F 5/9/2013	18WW22-051313 5/13/2013	MW10-050813 5/8/2013	MW10-050813F 5/8/2013
TRICHLOROFLUOROMETHANE	ug/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA
VINYL CHLORIDE	ug/L	2	2.98	2.86	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	NA	<0.5 U	<0.5 U	NA

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

ug/L - microgram per liter

J - estimated concentration

J+ - estimated high concentration

MCL - Maximum Contaminant Level

RRS - Risk Reduction Standard for industrial land use

mg/L - millgram per liter

NA - not available

TOC - total organic carbon

U - below detection limit

UJ - undetected estimated concentration

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	MW10-050813-FD 5/8/2013	MW10-050813F-FD 5/8/2013	MW16-051013 5/10/2013	MW16-051013-F 5/10/2013	MW17-051013 5/10/2013	MW18-050813 5/8/2013	MW18-050813F 5/8/2013	MW19-050813 5/8/2013	MW19-050813F 5/8/2013	MW2-050913 5/9/2013	MW21-050713 5/7/2013
TOC (415.1)													
TOC	mg/L		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (6010C)													
ALUMINUM	mg/L	102.2	NA	<0.1 U	NA	<0.1 U	<0.1 U	NA	<0.1 U	NA	<0.1 U	0.0864 J	<0.1 U
BERYLLIUM	mg/L	0.004	NA	<0.01 U	NA	<0.01 U	<0.01 U	NA	<0.01 U	NA	<0.01 U	<0.01 U	<0.01 U
CALCIUM	mg/L		NA	17.9	NA	26.2	40.2	NA	10.1	NA	126	164	281
IRON	mg/L		NA	14.4	NA	55.5	1.89	NA	1.51	NA	65.4	12.3	0.886
MAGNESIUM	mg/L		NA	10.1	NA	15.4	23.4	NA	6.05	NA	67.5	105	210
POTASSIUM	mg/L		NA	3.63	NA	3.23	2.9	NA	1.38 J	NA	3.61	4.33	2.31
SELENIUM	mg/L	0.05	NA	<0.01 U	NA	<0.01 U	<0.01 U	NA	<0.01 U	NA	<0.01 U	0.017 J	<0.01 U
SODIUM	mg/L		NA	96.9	NA	100	85.5	NA	90.4	NA	1220	314	704
Metals (6020A)													
ANTIMONY	mg/L	0.006	NA	<0.001 U	NA	<0.001 U	<0.001 U	NA	<0.001 U	NA	<0.001 U	<0.001 U	<0.001 U
ARSENIC	mg/L	0.01	NA	0.00186 J	NA	0.0039	0.00382	NA	0.00151 J	NA	0.0165	0.0106	0.0167
BARIUM	mg/L	2	NA	1.06	NA	0.551	0.507	NA	0.299	NA	0.145	5.73	10.8
CADMIUM	mg/L	0.005	NA	<0.0006 U	NA	<0.0006 U	<0.0006 U	NA	<0.0006 U	NA	<0.0006 U	0.00118 J	0.00121
CHROMIUM	mg/L	0.1	NA	0.031	NA	<0.002 U	0.0112	NA	<0.002 U	NA	0.03	1.12	0.0803
COBALT	mg/L	6.132	NA	0.00131 J	NA	0.00123 J	0.00412	NA	<0.001 U	NA	0.0189	0.0906	0.0633
COPPER	mg/L	1.3	NA	0.00576	NA	<0.002 U	<0.002 U	NA	<0.002 U	NA	0.0109	0.0029 J	0.0125
LEAD	mg/L	0.015	NA	<0.001 U	NA	<0.001 U	<0.001 U	NA	<0.001 U	NA	<0.001 U	<0.001 U	<0.001 U
MANGANESE	mg/L	14.308	NA	1.28	NA	0.857	0.2	NA	0.126	NA	2.73	3.25	2.24
NICKEL	mg/L	2.044	NA	0.0648	NA	0.00596 J	0.0226	NA	0.0278	NA	0.857	0.891	0.461
SILVER	mg/L	0.1	NA	<0.001 U	NA	<0.001 U	<0.001 U	NA	<0.001 U	NA	<0.001 U	<0.001 U	<0.001 U
THALLIUM	mg/L	0.002	NA	<0.0002 U	NA	<0.0002 U	<0.0002 U	NA	<0.0002 U	NA	<0.0002 U	<0.0002 U	<0.0002 U
VANADIUM	mg/L	0.7154	NA	<0.001 U	NA	<0.001 U	<0.001 U	NA	<0.001 U	NA	<0.005 U	<0.04 U	<0.01 U
ZINC	mg/L	30.66	NA	<0.025 U	NA	0.0145 J	<0.025 U	NA	<0.025 U	NA	0.0151 J	0.0442 J	0.0355 J
Perchlorate (6850)													
PERCHLORATE	ug/L	72	<0.2 U	NA	166	NA	<0.2 U	0.783	NA	<0.2 U	NA	4780	43700
Hexavalent Chromium (7196A)													
HEXAVALENT CHROMIUM	mg/L	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.01 U	<0.01 U
Mercury (7470A)													
MERCURY	mg/L	0.002	NA	<0.0002 U	NA	<0.0002 U	<0.0002 U	NA	<0.0002 U	NA	<0.0002 U	<0.0002 U	<0.0002 U
Volatile Organic Compounds (8260B)													
1,1,1,2-TETRACHLOROETHANE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
1,1,1-TRICHLOROETHANE	ug/L	200	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
1,1,2,2-TETRACHLOROETHANE	ug/L		<0.4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U	NA	<4000 U	<20 U
1,1,2-TRICHLOROETHANE	ug/L	5	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	19 J
1,1-DICHLOROETHANE	ug/L		<0.25 U	NA	0.346 J	NA	<0.25 U	<0.25 U	NA	<0.25 U	NA	<2500 U	<12.5 U
1,1-DICHLOROETHENE	ug/L	7	<1 U	NA	2.04	NA	<1 U	<1 U	NA	<1 U	NA	<10000 U	25.7 J
1,1-DICHLOROPROPENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
1,2,3-TRICHLOROBENZENE	ug/L		<0.3 U	NA	<0.3 U	NA	<0.3 U	<0.3 U	NA	<0.3 U	NA	<3000 U	<15 U
1,2,3-TRICHLOROPROPANE	ug/L		<1 U	NA	<1 U	NA	<1 U	<1 U	NA	<1 U	NA	<10000 U	<50 U
1,2,4-TRICHLOROBENZENE	ug/L	70	<0.4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U	NA	<4000 U	<20 U
1,2,4-TRIMETHYLBENZENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	MW10-050813-FD 5/8/2013	MW10-050813F-FD 5/8/2013	MW16-051013 5/10/2013	MW16-051013-F 5/10/2013	MW17-051013 5/10/2013	MW18-050813 5/8/2013	MW18-050813F 5/8/2013	MW19-050813 5/8/2013	MW19-050813F 5/8/2013	MW2-050913 5/9/2013	MW21-050713 5/7/2013
1,2-DIBROMO-3-CHLOROPROPANE	ug/L	0.2	<2 U	NA	<2 U	NA	<2 U	<2 U	NA	<2 U	NA	<20000 U	<100 U
1,2-DIBROMOETHANE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
1,2-DICHLOROBENZENE	ug/L	600	<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	NA	<2500 U	<12.5 U
1,2-DICHLOROETHANE	ug/L	5	<0.5 U	NA	11.3	NA	<0.5 U	<0.5 U	NA	0.707 J	NA	<5000 U	106
1,2-DICHLOROPROPANE	ug/L	5	<0.4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U	NA	<4000 U	<20 U
1,3,5-TRIMETHYLBENZENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
1,3-DICHLOROBENZENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
1,3-DICHLOROPROPANE	ug/L		<0.4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U	NA	<4000 U	<20 U
1,4-DICHLOROBENZENE	ug/L	75	<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	NA	<2500 U	<12.5 U
2,2-DICHLOROPROPANE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
2-BUTANONE	ug/L		<5 U	NA	<5 UJ	NA	<5 UJ	<5 U	NA	<5 U	NA	<50000 U	<250 U
2-CHLOROTOLUENE	ug/L		<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	NA	<2500 U	<12.5 U
2-HEXANONE	ug/L		<5 U	NA	<5 UJ	NA	<5 UJ	<5 U	NA	<5 U	NA	<50000 U	<250 U
4-CHLOROTOLUENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
4-METHYL-2-PENTANONE	ug/L		<5 U	NA	<5 U	NA	<5 U	<5 U	NA	<5 U	NA	<50000 U	<250 U
ACETONE	ug/L		<5 U	NA	<5 UJ	NA	<5 UJ	<5 U	NA	<5 U	NA	<50000 U	<250 U
BENZENE	ug/L	5	<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	NA	<2500 U	8.7 J
BROMOBENZENE	ug/L		<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	NA	<2500 U	<12.5 U
BROMOCHLOROMETHANE	ug/L		<0.4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U	NA	<4000 U	<20 U
BROMODICHLOROMETHANE	ug/L	80	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
BROMOFORM	ug/L	80	<1 U	NA	<1 U	NA	<1 U	<1 U	NA	<1 U	NA	<10000 U	<50 U
BROMOMETHANE	ug/L		<1 U	NA	<1 U	NA	<1 U	<1 U	NA	<1 U	NA	<10000 U	<50 U
CARBON DISULFIDE	ug/L		<1 U	NA	<1 U	NA	<1 U	<1 U	NA	<1 U	NA	<10000 U	<50 U
CARBON TETRACHLORIDE	ug/L	5	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
CHLOROBENZENE	ug/L	100	<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	NA	<2500 U	<12.5 U
CHLOROETHANE	ug/L		<1 U	NA	<1 U	NA	<1 U	<1 U	NA	<1 U	NA	<10000 U	<50 U
CHLOROFORM	ug/L	80	<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	NA	<2500 U	25.7 J
CHLOROMETHANE	ug/L		<1 U	NA	<1 UJ	NA	<1 UJ	<1 U	NA	<1 U	NA	<10000 U	<50 U
CIS-1,2-DICHLOROETHENE	ug/L	70	<0.5 U	NA	5.12	NA	<0.5 U	<0.5 U	NA	1.15	NA	44400	169
CIS-1,3-DICHLOROPROPENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
DIBROMOCHLOROMETHANE	ug/L	80	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
DIBROMOMETHANE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
DICHLORODIFLUOROMETHANE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
ETHYLBENZENE	ug/L	700	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
HEXACHLOROBUTADIENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
ISOPROPYLBENZENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
m,p-Xylene	ug/L	10000	<1 U	NA	<1 U	NA	<1 U	<1 U	NA	<1 U	NA	<10000 U	<50 U
METHYLENE CHLORIDE	ug/L	5	<0.5 U	NA	<0.5 U	NA	0.335 J	<0.5 U	NA	<0.5 U	NA	1050000	<25 U
NAPHTHALENE	ug/L		<0.4 U	NA	<0.4 U	NA	<0.4 U	<0.4 U	NA	<0.4 U	NA	<4000 U	<20 U
N-BUTYLBENZENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
N-PROPYLBENZENE	ug/L		<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	NA	<2500 U	<12.5 U
O-XYLENE	ug/L	10000	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
P-ISOPROPYLTOLUENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
SEC-BUTYLBENZENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
STYRENE	ug/L	100	<0.25 U	NA	<0.25 U	NA	<0.25 U	<0.25 U	NA	<0.25 U	NA	<2500 U	<12.5 U
TERT-BUTYLBENZENE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
TETRACHLOROETHENE	ug/L	5	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
TOLUENE	ug/L	1000	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
TRANS-1,2-DICHLOROETHENE	ug/L	100	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	13.8 J
TRANS-1,3-DICHLOROPROPENE	ug/L		<1 U	NA	<1 U	NA	<1 U	<1 U	NA	<1 U	NA	<10000 U	<50 U
TRICHLOROETHENE	ug/L	5	0.76 J	NA	89.9	NA	0.519 J	2.57	NA	16	NA	68400	14400

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	MW10-050813-FD 5/8/2013	MW10-050813F-FD 5/8/2013	MW16-051013 5/10/2013	MW16-051013-F 5/10/2013	MW17-051013 5/10/2013	MW18-050813 5/8/2013	MW18-050813F 5/8/2013	MW19-050813 5/8/2013	MW19-050813F 5/8/2013	MW2-050913 5/9/2013	MW21-050713 5/7/2013
TRICHLOROFLUOROMETHANE	ug/L		<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	<25 U
VINYL CHLORIDE	ug/L	2	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U	NA	<0.5 U	NA	<5000 U	68.8

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

ug/L - microgram per liter

J - estimated concentration

J+ - estimated high concentration

MCL - Maximum Contaminant Level

RRS - Risk Reduction Standard for industrial land use

mg/L - millgram per liter

NA - not available

TOC - total organic carbon

U - below detection limit

UJ - undetected estimated concentration

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	MW22-050813 5/8/2013	MW23-050813 5/8/2013	MW3-050713 5/7/2013	MW5-051313 5/13/2013	MW6-050913 5/9/2013	MW7-051413 5/14/2013	MW8-051613 5/16/2013	MW9-050913 5/9/2013	MW9-050913-FD 5/9/2013
TOC (415.1)											
TOC	mg/L		NA	NA	NA	NA	NA	NA	3.67	NA	NA
Metals (6010C)											
ALUMINUM	mg/L	102.2	<0.1 U	<0.1 U	0.0542 J	<0.1 U	<0.1 U	<0.1 U	<0.1 U	<0.1 U	<0.1 U
BERYLLIUM	mg/L	0.004	<0.01 U	<0.01 U	<0.01 U	<0.01 U	<0.01 U	<0.01 U	<0.01 U	<0.01 U	<0.01 U
CALCIUM	mg/L		47.6 J	8.63	16.7	18.5	33.5	8.42	37.5	32.2	31.2
IRON	mg/L		0.452	0.0595 J	0.189 J	0.239	0.608	3.34	0.26	0.779	0.822
MAGNESIUM	mg/L		13.6	5.79	10.6	20.8	30.4	7.18	33.4	12	11.7
POTASSIUM	mg/L		2.28	2.83	1.3 J	2	2.41	0.767 J	0.762 J	0.816 J	0.779 J
SELENIUM	mg/L	0.05	<0.01 U	<0.01 U	<0.01 U	<0.01 U	<0.01 U	<0.01 U	<0.01 U	<0.01 U	<0.01 U
SODIUM	mg/L		412	290	178	111	291	263	270	30.8	30
Metals (6020A)											
ANTIMONY	mg/L	0.006	0.000721 J	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U
ARSENIC	mg/L	0.01	0.00664	0.00509	0.00119 J	0.00142 J	0.00394	0.00412	0.00203	<0.001 U	0.000774 J
BARIUM	mg/L	2	0.922	0.287	0.293 J	0.828	0.832	0.0313	0.482	0.31	0.311
CADMIUM	mg/L	0.005	<0.0006 U	<0.0006 U	<0.0006 U	0.000884 J	<0.0006 U	<0.0006 U	0.000985 J	<0.0006 U	<0.0006 U
CHROMIUM	mg/L	0.1	0.0974	0.00888	0.00147 J	0.0366	0.101	1.34	0.0595	0.194	0.181
COBALT	mg/L	6.132	0.00184 J	0.000676 J	0.00419	0.00443	0.00179 J	0.004	0.034	0.0019 J	0.00202
COPPER	mg/L	1.3	0.00288 J	0.00218 J	0.00102 J	0.00194 J	0.00163 J	0.0147	0.0082	0.00119 J	0.00116 J
LEAD	mg/L	0.015	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U
MANGANESE	mg/L	14.308	0.0223	0.00721	1.2	0.158	0.107	0.0601	0.377	0.0315	0.0326
NICKEL	mg/L	2.044	0.096	0.0118	0.00543 J	0.118	0.0118	0.216	0.261	0.139	0.134
SILVER	mg/L	0.1	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U	<0.001 U
THALLIUM	mg/L	0.002	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U
VANADIUM	mg/L	0.7154	<0.005 U	0.00557	<0.001 U	<0.001 U	<0.005 U	<0.05 U	<0.002 U	<0.005 U	<0.005 U
ZINC	mg/L	30.66	<0.025 U	<0.025 U	<0.025 U	0.0216 J	<0.025 U	<0.025 U	0.0375 J	<0.025 U	<0.025 U
Perchlorate (6850)											
PERCHLORATE	ug/L	72	1510	55600	11200	27600	8250	37500	72000	320	320
Hexavalent Chromium (7196A)											
HEXAVALENT CHROMIUM	mg/L	0.1	<0.01 U	<0.01 U	<0.01 U	<0.01 U	NA	<0.01 U	NA	<0.01 U	<0.01 U
Mercury (7470A)											
MERCURY	mg/L	0.002	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U	<0.0002 U
Volatile Organic Compounds (8260B)											
1,1,1,2-TETRACHLOROETHANE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
1,1,1-TRICHLOROETHANE	ug/L	200	<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
1,1,2,2-TETRACHLOROETHANE	ug/L		<0.8 U	<2 U	<0.4 U	<0.4 U	<0.4 U	<10 U	<0.4 U	<4 U	<4 U
1,1,2-TRICHLOROETHANE	ug/L	5	<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	0.898 J	<5 U	<5 U
1,1-DICHLOROETHANE	ug/L		<0.5 U	<1.25 U	2.74	3.52	4.05	<6.25 U	<0.25 U	<2.5 U	<2.5 U
1,1-DICHLOROETHENE	ug/L	7	<2 U	<5 U	1.5 J	0.715 J	1.11 J	14 J	<1 U	<10 U	<10 U
1,1-DICHLOROPROPENE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
1,2,3-TRICHLOROBENZENE	ug/L		<0.6 U	<1.5 U	<0.3 U	<0.3 U	<0.3 U	<7.5 U	<0.3 U	<3 U	<3 U
1,2,3-TRICHLOROPROPANE	ug/L		<2 U	<5 U	<1 U	<1 U	<1 U	<25 U	<1 U	<10 U	<10 U
1,2,4-TRICHLOROBENZENE	ug/L	70	<0.8 U	<2 U	<0.4 U	<0.4 U	<0.4 U	<10 U	<0.4 U	<4 U	<4 U
1,2,4-TRIMETHYLBENZENE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	MW22-050813 5/8/2013	MW23-050813 5/8/2013	MW3-050713 5/7/2013	MW5-051313 5/13/2013	MW6-050913 5/9/2013	MW7-051413 5/14/2013	MW8-051613 5/16/2013	MW9-050913 5/9/2013	MW9-050913-FD 5/9/2013
1,2-DIBROMO-3-CHLOROPROPANE	ug/L	0.2	<4 U	<10 U	<2 U	<2 U	<2 U	<50 U	<2 U	<20 U	<20 U
1,2-DIBROMOETHANE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
1,2-DICHLOROBENZENE	ug/L	600	<0.5 U	<1.25 U	<0.25 U	<0.25 U	<0.25 U	<6.25 U	<0.25 U	<2.5 U	<2.5 U
1,2-DICHLOROETHANE	ug/L	5	2.7	16	<0.5 U	<0.5 U	<0.5 U	43.3	19.5	<5 U	<5 U
1,2-DICHLOROPROPANE	ug/L	5	<0.8 U	<2 U	<0.4 U	<0.4 U	<0.4 U	<10 U	<0.4 U	<4 U	<4 U
1,3,5-TRIMETHYLBENZENE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
1,3-DICHLOROBENZENE	ug/L		<1 U	<2.5 U	<0.5 U	0.587 J	0.865 J	<12.5 U	<0.5 U	<5 U	<5 U
1,3-DICHLOROPROPANE	ug/L		<0.8 U	<2 U	<0.4 U	<0.4 U	<0.4 U	<10 U	<0.4 U	<4 U	<4 U
1,4-DICHLOROBENZENE	ug/L	75	<0.5 U	<1.25 U	<0.25 U	<0.25 U	<0.25 U	<6.25 U	<0.25 U	<2.5 U	<2.5 U
2,2-DICHLOROPROPANE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
2-BUTANONE	ug/L		<10 U	13.8 J	<5 U	<5 U	<5 U	<125 U	<5 UJ	<50 U	<50 U
2-CHLOROTOLUENE	ug/L		<0.5 U	<1.25 U	<0.25 U	<0.25 U	<0.25 U	<6.25 U	<0.25 U	<2.5 U	<2.5 U
2-HEXANONE	ug/L		<10 U	<25 U	<5 U	<5 U	<5 U	<125 U	<5 UJ	<50 U	<50 U
4-CHLOROTOLUENE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
4-METHYL-2-PENTANONE	ug/L		<10 U	<25 U	<5 U	<5 U	<5 U	<125 U	<5 UJ	<50 U	<50 U
ACETONE	ug/L		<10 U	<25 U	<5 U	<5 UJ	<5 U	<125 U	<5 UJ	<50 U	<50 U
BENZENE	ug/L	5	1.31 J	0.873 J	0.167 J	<0.25 U	0.187 J	7.79 J	0.368 J	<2.5 U	<2.5 U
BROMOBENZENE	ug/L		<0.5 U	<1.25 U	<0.25 U	<0.25 U	<0.25 U	<6.25 U	<0.25 U	<2.5 U	<2.5 U
BROMOCHLOROMETHANE	ug/L		<0.8 U	<2 U	<0.4 U	<0.4 U	<0.4 U	<10 U	<0.4 U	<4 U	<4 U
BROMODICHLOROMETHANE	ug/L	80	<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
BROMOFORM	ug/L	80	<2 U	<5 U	<1 U	<1 U	<1 U	<25 U	<1 U	<10 U	<10 U
BROMOMETHANE	ug/L		<2 U	<5 U	<1 U	<1 U	<1 U	<25 U	<1 U	<10 U	<10 U
CARBON DISULFIDE	ug/L		<2 U	<5 U	<1 U	<1 U	<1 U	<25 U	<1 U	<10 U	<10 U
CARBON TETRACHLORIDE	ug/L	5	<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
CHLOROBENZENE	ug/L	100	<0.5 U	0.98 J	<0.25 U	<0.25 U	<0.25 U	<6.25 U	<0.25 U	<2.5 U	<2.5 U
CHLOROETHANE	ug/L		<2 U	<5 U	<1 U	<1 U	<1 U	<25 U	<1 U	<10 U	<10 U
CHLOROFORM	ug/L	80	1.99 J	1.4 J	<0.25 UJ	0.374 J	<0.25 U	20.9 J	1.99	2.81 J	2.75 J
CHLOROMETHANE	ug/L		<2 U	<5 U	<1 U	<1 U	<1 U	<25 U	<1 U	<10 U	<10 U
CIS-1,2-DICHLOROETHENE	ug/L	70	2.13	2.62 J	27.9	10.5	12.4	22.2 J	5.95	205	203
CIS-1,3-DICHLOROPROPENE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
DIBROMOCHLOROMETHANE	ug/L	80	<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
DIBROMOMETHANE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
DICHLORODIFLUOROMETHANE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
ETHYLBENZENE	ug/L	700	<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
HEXACHLOROBUTADIENE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
ISOPROPYLBENZENE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
m,p-Xylene	ug/L	10000	<2 U	<5 U	<1 U	<1 U	<1 U	<25 U	<1 U	<10 U	<10 U
METHYLENE CHLORIDE	ug/L	5	0.531 J	<2.5 U	0.369 J	<0.5 U	<0.5 U	<12.5 U	0.351 J	<5 U	<5 U
NAPHTHALENE	ug/L		<0.8 U	<2 U	<0.4 U	<0.4 U	<0.4 U	<10 U	<0.4 U	<4 U	<4 U
N-BUTYLBENZENE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
N-PROPYLBENZENE	ug/L		<0.5 U	<1.25 U	<0.25 U	<0.25 U	<0.25 U	<6.25 U	<0.25 U	<2.5 U	<2.5 U
O-XYLENE	ug/L	10000	<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
P-ISOPROPYLTOLUENE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
SEC-BUTYLBENZENE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
STYRENE	ug/L	100	<0.5 U	<1.25 U	<0.25 U	<0.25 U	<0.25 U	<6.25 U	<0.25 U	<2.5 U	<2.5 U
TERT-BUTYLBENZENE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
TETRACHLOROETHENE	ug/L	5	<1 U	<2.5 U	0.256 J	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
TOLUENE	ug/L	1000	<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
TRANS-1,2-DICHLOROETHENE	ug/L	100	<1 U	<2.5 U	0.529 J	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
TRANS-1,3-DICHLOROPROPENE	ug/L		<2 U	<5 U	<1 U	<1 U	<1 U	<25 U	<1 U	<10 U	<10 U
TRICHLOROETHENE	ug/L	5	213	547	142	45.7	27.3	2690	907	2400	2370

Table 3-5: Groundwater Sampling Results - LHAAP-18/24

Sample ID: Sample Date:	Units	MCL/ RRS	MW22- 050813 5/8/2013	MW23- 050813 5/8/2013	MW3- 050713 5/7/2013	MW5- 051313 5/13/2013	MW6- 050913 5/9/2013	MW7- 051413 5/14/2013	MW8- 051613 5/16/2013	MW9- 050913 5/9/2013	MW9- 050913-FD 5/9/2013
TRICHLOROFLUOROMETHANE	ug/L		<1 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<12.5 U	<0.5 U	<5 U	<5 U
VINYL CHLORIDE	ug/L	2	<1 U	<2.5 U	7.84	7.83	9.22	<12.5 U	<0.5 U	<5 U	<5 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

ug/L - microgram per liter

J - estimated concentration

J+ - estimated high concentration

MCL - Maximum Contaminant Level

RRS - Risk Reduction Standard for industrial land use

mg/L - millgram per liter

NA - not available

TOC - total organic carbon

U - below detection limit

UJ - undetected estimated concentration

Table 3-6: Analysis of Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	GWP-Ind	18CPT01 (7-8)-260213 2/26/2013	18CPT01 (15-16)-270213 2/27/2013	18CPT01 (31-32)-270213 2/27/2013	18CPT01 (40-40.5)-270213 2/27/2013	18CPT02 (8-9)280313 3/28/2013	18CPT02 (21-22)280313 3/28/2013	18CPT02 (29-30)280313 3/28/2013	18CPT02 (41-42)280313 3/28/2013	18CPT03 (10-11)-110313 3/11/2013	18CPT03 (21-22)-110313 3/11/2013	18CPT03 (34-35)-110313 3/11/2013	18CPT03 (43-44)-110313 3/11/2013
Comments	CPT		Fine grained	Fine grained	Fine grained	Coarse to Fine grained	Fine grained	Coarse grained	Fine grained	Fine grained	Fine grained	Coarse grained	Fine grained	Fine grained
	MIP		Little first response. DELCD = 0.3 E6.	Little response. FID = 0.2 E6; PID = 1.3 E5; DELCD = 0.6 E6	Increasing response. FID = 0.5 E6; PID = 2.3 E5; DELCD = 1 E6	Peak response. FID = 2.2 E6; PID = 5.4E5; DELCD = 2.7E6	No response.	First response. DELCD = 0.4 E6.	First FID response. FID 2 E5; DELCD = 0.4 E6	Highest response. FID 2.8 E5; DELCD = 0.9 E6	Low FID response only. FID = 1.5 E5; DELCD = 0.05 E6	High DELCD response. DELCD = 0.6 E6	Little FID/PID & high DELCD response. FID = 1 E5; PID = 1.2 E5 DELCD = 0.55 E6	Significantly Decreasing response; DELCD = 0.2E6
	Closest Well: Concentration		MW-2. MC = 1,170,000 ug/L; TCE = 61,500 ug/L; perchlorate = 6,940 ug/L				MW-21. MC = 11.9 ug/L; TCE = 4,980 ug/L; perchlorate = 28,900 ug/L				ICT-4. MC < 12.5 ug/L; TCE = 4,670 ug/L; perchlorate = 11,700 ug/L			
	Closest Well: GW Elevation (btoc)		MW-2: 27.43 ft btoc [May 2013]				No well.				No well.			
	Ground Elevation: bgs		Saturated at or below 24 ft Clay layer below 40 ft bgs.				Saturated at or below 24 ft. Clay layer below 40 ft bgs.				MW-23 saturated at or below 25 ft. Clay layer below 40 ft bgs.			
	Location		Unsaturated	Unsaturated	Saturated	Saturated	Unsaturated	Smear Zone	Saturated	Saturated	Unsaturated	Smear Zone	Saturated	Saturated
	Source Exists?		No. Soil is relatively clean to 29 ft bgs. TCE and MC in saturated soil only.				No. Clean soil to 21 ft bgs. TCE in unsaturated soil (not high). MC mostly in saturated soil. Need perchlorate data.				No. Clean soil to 18 ft bgs (w/exception of 7-10 low FID response). Most contamination is in the saturated zone.			
	DNAPL Presence Implied?		No.				No.				No.			
Perchlorate (6850)														
PERCHLORATE	ug/kg	7200	6.29	1.24	1.36	5670	1.9 J	5	40	1.5 J	2.44 J	3.49 J	7270	70800
Volatile Organic Compounds (8260B)														
1,1,1-TRICHLOROETHANE	ug/kg	20000	<1.05 U	<1.08 U	6.71	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U	<105 U
1,1,2-TRICHLOROETHANE	ug/kg	500	<1.05 U	<1.08 U	2.14	4.31	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U	<105 U
1,1-DICHLOROETHANE	ug/kg	1.00E+06	<2.09 U	<2.16 U	12.8	31	<2.14 U	<2.15 U	<230 U	<233 U	<1.99 U	<2.22 U	<221 U	<209 U
1,1-DICHLOROETHENE	ug/kg	700	<1.05 U	5.5	106	542	<1.07 U	12.9	<115 U	<116 U	<0.997 U	<1.11 U	<111 U	<105 U
1,2,4-TRIMETHYLBENZENE	ug/kg		<1.05 U	<1.08 U	2.13	0.508	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U	<105 U
1,2-DICHLOROETHANE	ug/kg	500	<1.05 U	<1.08 U	<0.96 U	1.97	<1.07 U	9.73	253 J	<116 U	<0.997 U	<1.11 U	64.4 J	<105 U
2-BUTANONE	ug/kg	6.00E+06	<5.24 U	<5.39 U	<4.8 U	11.3	<5.34 U	<5.37 U	<576 U	<581 U	<4.98 U	2.88 J	<553 UJ	<524 UJ
ACETONE	ug/kg	102200	<10.5 U	<10.8 U	<9.6 U	<10.1 U	9.33 J	<10.7 U	<1150 U	<1160 U	<9.97 U	16.1 J	<1110 U	<1050 U
BENZENE	ug/kg	500	<1.05 U	<1.08 U	<0.96 U	1.14	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U	<105 U
BROMOCHLOROMETHANE	ug/kg		<2.09 U	<2.16 U	<1.92 U	23.4	<2.14 U	<2.15 U	<230 U	<233 U	<1.99 U	<2.22 U	<221 U	<209 U
CARBON DISULFIDE	ug/kg	102200	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U	<105 U
CARBON TETRACHLORIDE	ug/kg	500	<1.05 U	<1.08 U	<0.96 U	<1.01 U	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U	<105 U
CHLOROFORM	ug/kg	514	<1.05 U	<1.08 U	13.7	122	<1.07 U	0.962 J	<115 U	<116 U	<0.997 U	1.25 J	<111 U	<105 U
CIS-1,2-DICHLOROETHENE	ug/kg	7000	<1.05 U	1.69	27100	391	<1.07 U	38.5	107 J	2050	<0.997 U	<1.11 U	93 J	<105 U
ETHYLBENZENE	ug/kg	70000	<1.05 U	<1.08 U	23.9	6.64	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U	<105 U
m,p-Xylene	ug/kg	1000000	<1.05 U	<1.08 U	5.71	3.13	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U	<105 U
METHYLENE CHLORIDE	ug/kg	500	4.06	<2.16 U	135	657000	1.24 J	<2.15 U	<230 U	7150	<1.99 U	1.43 J	<221 U	<209 U
NAPHTHALENE	ug/kg	204400	<1.05 U	0.589	2.08	0.521	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U	<105 U
O-XYLENE	ug/kg	1000000	<1.05 U	<1.08 U	3.2	1.52	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U	<105 U
STYRENE	ug/kg	10000	<1.05 U	<1.08 U	59.7	4.05	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U	<105 U
TETRACHLOROETHENE	ug/kg	500	<1.05 U	1.24	18.1	7.65	<1.07 U	0.933 J	<115 U	<116 U	<0.997 U	<1.11 U	<111 U	<105 U
TOLUENE	ug/kg	100000	<1.05 U	<1.08 U	8.29	4.36	<1.07 U	<1.07 U	<115 U	<116 U	<0.997 U	<1.11 U	<111 U	<105 U
TRANS-1,2-DICHLOROETHENE	ug/kg	10000	<1.05 U	<1.08 U	18.2	121	<1.07 U	1.03 J	<115 U	<116 U	<0.997 U	<1.11 U	<111 U	<105 U
TRICHLOROETHENE	ug/kg	500	<1.05 U	95.6	197	41400	2.4 J	3000	3130	338 J	<0.997 U	22.7	2320	365 J
VINYL CHLORIDE	ug/kg	200	<2.09 U	<2.16 U	6.93	43.7	<2.14 U	13.8	<230 U	<233 U	<1.99 U	<2.22 U	<221 U	<209 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

bgs - below ground surface

btoc - below top of casing

CPT - cone-penetrometer testing

DELCD - dry electrolytic conductivity detector

DNAPL - dense non-aqueous phase liquid

FID - flame ionization detector

ft - feet

GW - ground water

J - estimated concentration

MC - methylene chloride

MIP - membrane interface probe

NA - not available

PID - photoionization detector

RSS - Risk Reduction Standard for industrial land use

TCE - trichloroethylene

U - below detection limit

UEP - unlined evaporation pond

ug/kg - microgram per kilograms

ug/L - microgram per liter

VOC - volatile organic compound

Table 3-6: Analysis of Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	GWP-Ind	18CPT05 (15-16)-010413 4/1/2013	18CPT05 (25-26)-010413 4/1/2013	18CPT05 (31-32)-010413 4/1/2013	18CPT05 (39-40)-010413 4/1/2013	18CPT06 (9-10)-070313 3/7/2013	18CPT06 (9-10)-070313D 3/7/2013	18CPT06 (19-20)-080313 3/8/2013	18CPT06 (38-39)-080313 3/8/2013	18CPT06 (43-44)-080313 3/8/2013	18CPT07 (7-8)-120313 3/12/2013	18CPT07 (17-18)-120313 3/12/2013	18CPT07 (29-30)-120313 3/12/2013	18CPT07 (37-38)-120313 3/12/2013	18CPT07 (37-38)-120313D 3/12/2013
Comments	CPT		Fine grained	Fine grained	Coarse grained	Fine grained (Clay at 35')	Fine grained		Coarse grained	Coarse grained	Fine grained	Fine grained	Coarse grained	Mixed grain	Mixed grain	
	MIP		Some response. PID 0.15E6, DELCD 0.5E6	High Response. FID 0.5E6, PID 0.5E6, DELCD 1.5E6	High Response. FID 0.5E6, PID 0.5E6, DELCD 1.5E6	Decreasing Response, FID 0.2E6, PID 0.3E6, DELCD 1 E6	DELCD = 1.6 E5		Some response. DELCD = 2.5 E5	Some response. DELCD = 2.5 E5	DELCD = 1.8E5	V. little response. PID = 1.1 E5; DELCD = 0.25 E5	Beginning response. DELCD = 1 E5	Mostly DELCD = 4 E5	Mostly DELCD = 4 E5	
	Closest Well: Concentration		AWD-2: MC = 0.373 ug/L; TCE = 278 ug/L; Perchlorate = 13.8 ug/L. [Oct 2012 Results]				MW-22: MC = 0.962 ug/L; TCE = 388 ug/L; Perchlorate = 2540 ug/L. [Oct 2012 Results]					MW-21: MC = 11.9 ug/L; TCE = 4,980 ug/L; Perchlorate = 28,900 ug/L. [Oct 2012 Results]				
	Closest Well: GW Elevation (btoc)		No well.				MW-22: 28.5 ft btoc [May 2013 gauging]					MW-21: 31.80 ft btoc [May 2013 gauging]				
	Ground Elevation: bgs		Saturated below 17 ft. based on groundwater elevation and depth to groundnwater from potentiometric map of shallow groundwater [May 2013]				Saturated below 25.5 ft. [May 2013 gauging in MW-22]					Saturated below 28.8 ft. [May 2013 gauging]				
	Location		Smear Zone	Saturated	Saturated	Saturated	Unsaturated	Unsaturated	Unsaturated	Saturated	Saturated	Unsaturated	Unsaturated	Saturated	Saturated	Saturated
	Source Exists?		No. Impact in saturated soil				No. Clean soil to 15 ft bgs . Most contamination between 19 and 40 ft bgs and mostly in the saturated zone. Clay below 40 ft.					No. Clean soil to 16 ft bgs . Most contamination between 28 and 43 ft bgs and mostly in the saturated zone. Clay below 40 ft.				
	DNAPL Presence Implied?		No.				No.					No.				
Perchlorate (6850)																
PERCHLORATE	ug/kg	7200	1.7	13000	3300	140	<2.46 U	<2.5 U	331	824	15.5	19.6	669	3780	6080	6660
Volatile Organic Compounds (8260B)																
1,1,1-TRICHLOROETHANE	ug/kg	20000	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
1,1,2-TRICHLOROETHANE	ug/kg	500	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
1,1-DICHLOROETHANE	ug/kg	1.00E+06	<209 U	<5440 U	<2170 U	<2010 U	<2.23 U	<2.11 U	<2.06 U	<1.89 U	<2.11 U	<2.3 U	<2.42 U	<198 U	<218 U	<218 U
1,1-DICHLOROETHENE	ug/kg	700	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	0.737	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
1,2,4-TRIMETHYLBENZENE	ug/kg		<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
1,2-DICHLOROETHANE	ug/kg	500	<104 U	5650 J	4380 J	727 J	<1.12 U	<1.06 U	<1.03 U	0.928	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
2-BUTANONE	ug/kg	6.00E+06	<522 U	<13600 U	<5430 U	<5020 U	<5.58 U	<5.28 U	<5.14 U	<4.72 U	<5.28 U	<5.75 U	<6.04 U	<494 UJ	<544 UJ	<544 UJ
ACETONE	ug/kg	102200	<1040 U	<27200 U	<10900 U	<10000 U	<11.2 U	<10.6 U	<10.3 U	<9.43 U	<10.6 U	<11.5 U	<12.1 U	<988 U	<1090 U	<1090 U
BENZENE	ug/kg	500	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	1.43	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
BROMOCHLOROMETHANE	ug/kg		<209 U	<5440 U	<2170 U	<2010 U	<2.23 U	<2.11 U	<2.06 U	<1.89 U	<2.11 U	<2.3 U	<2.42 U	<198 U	<218 U	<218 U
CARBON DISULFIDE	ug/kg	102200	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
CARBON TETRACHLORIDE	ug/kg	500	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
CHLOROFORM	ug/kg	514	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	1.1	2.01	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
CIS-1,2-DICHLOROETHENE	ug/kg	7000	231 J	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	7.37	1.82	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
ETHYLBENZENE	ug/kg	70000	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
m,p-Xylene	ug/kg	1000000	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
METHYLENE CHLORIDE	ug/kg	500	<209 U	369000	304000	23100	<2.23 U	1.94	<2.06 U	<1.89 U	<2.11 U	<2.3 U	<2.42 U	<198 U	<218 U	<218 U
NAPHTHALENE	ug/kg	204400	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
O-XYLENE	ug/kg	1000000	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
STYRENE	ug/kg	10000	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
TETRACHLOROETHENE	ug/kg	500	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
TOLUENE	ug/kg	100000	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
TRANS-1,2-DICHLOROETHENE	ug/kg	10000	<104 U	<2720 U	<1090 U	<1000 U	<1.12 U	<1.06 U	<1.03 U	<0.943 U	<1.06 U	<1.15 U	<1.21 U	<98.8 U	<109 U	<109 U
TRICHLOROETHENE	ug/kg	500	8530	161000	109000	139000	16.3	14.8	106	219	<1.06 U	1.66 J	1.13 J	368 J	369 J	371 J
VINYL CHLORIDE	ug/kg	200	<209 U	<5440 U	<2170 U	<2010 U	<2.23 U	<2.11 U	<2.06 U	<1.89 U	<2.11 U	<2.3 U	<2.42 U	<198 U	<218 U	<218 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

bgs - below ground surface

btoc - below top of casing

CPT - cone-penetrometer testing

DELCD - dry electrolytic conductivity detector

DNAPL - dense non-aqueous phase liquid

FID - flame ionization detector

ft - feet

GW - ground water

J - estimated concentration

MC - methylene chloride

MIP - membrane interface probe

NA - not available

PID - photoionization detector

RSS - Risk Reduction Standard for industrial land use

TCE - trichloroethylene

U - below detection limit

UEP - unlined evaporation pond

ug/kg - microgram per kilograms

ug/L - microgram per liter

VOC - volatile organic compound

Table 3-6: Analysis of Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	GWP-Ind	18CPT08 (6-7)-270213 2/28/2013	18CPT08 (37.5-38)-010313 3/1/2013	18CPT09 (6-7)-010413 4/1/2013	18CPT09 (12-13)-010413 4/1/2013	18CPT09 (16-17)-010413 4/1/2013	18CPT09 (21-22)-010413 4/1/2013	18CPT10 (17-18)-040313 3/4/2013	18CPT10 (19-20)-040313 3/4/2013	18CPT10 (19-20)-070313D	18CPT10 (27-27.5)-040313 3/4/2013	18CPT10 (28-29)-040313 3/4/2013	18CPT12 (13-14)-050313 3/5/2013	18CPT12 (18-19)-050313 3/5/2013	18CPT12 (22-23)-050313 3/5/2013	18CPT12 (28-29)-050313 3/5/2013
Comments	CPT		Mostly fine grained	Coarse grained	Coarse grained	Coarse grained	Coarse to fine	Coarse grained	Coarse grained	Fine grained		Coarse grained	Fine grained	Coarse grained	Coarse grained	Fine grained	Fine grained
	MIP		Low response. FID = 1 E5; PID = 1.2 E5; DELCD = 1.7 E5	Peak FID response = 1.4 E5;	Low response. DELCD 2 E5	Some Response. PID 1.1 E5, DELCD 2.8 E5	Some Response. DELCD 2.5 E5	Decreasing Response, DELCD 2 E5	Peak and initial response. FID = 1.5 E5; PID = 2.2 E5; DELCD = 4.4 E5	High response. FID = 1.7 E5; PID = 1.4E5; DELCD = 2.5 E5		High response. FID = 1.5 E5; PID = 1.6 E5; DELCD = 3.5 E5	Lower response. FID = 1 E5; PID = 1.6 E5; DELCD = 3.4 E5	DELCD = 0.8 E5.	DELCD = 0.75E5	Beginning of response. FID = 1 E5; DELCD = 1.5 E5	Same as 22-23 ft interval
	Closest Well: Concentration		MW-5. MC < 0.5; TCE = 50.9; perchlorate = 25,200 ug/L		MW-12: MC < 0.5 ug/L; TCE = 2190 ug/L; Perchlorate = 257 ug/L.				MW-9: MC 22.7 ug/L; TCE = 5,620 ug/L; Perchlorate = 1,340 ug/L.					MW-7: MC = 0.415 ug/L; TCE = 2,130 ug/L; Perchlorate = 34,100 ug/L.			
	Closest Well: GW Elevation (btoc)		MW-5: 26.60 ft btoc. [May 2013 gauging]		18WW06: 11.45 ft btoc [May 2013 gauging]				MW-9: 15.5 ft btoc [May 2013 gauging]					MW-7: 20.09 ft btoc [May 2013 gauging]			
	Ground Elevation: bgs		Saturated below 23.60 ft. [May 2013 gauging]		Saturated below 8.45 ft. No clay layer. Coarse grained below 13 ft.				Saturated below 12.5 ft. Clay layer below 28 ft bgs.					Saturated below 17 ft bgs. Clay below 19 ft bgs.			
	Location		Unsaturated	Saturated	Unsaturated	Saturated	Saturated	Saturated	Saturated	Saturated		Saturated	Saturated	Unsaturated	Saturated	Saturated	Saturated
	Source Exists?		No. Clay below 38 ft bgs. Most contamination in saturated zone.		Yes. Only for perchlorate.				No. No response to 15 ft bgs. Some contamination in upper saturated zone but most of TCE and perchlorate is in deeper saturated zone and in upper clay zone					No. First response at 13 ft bgs. No major response increase until 22 ft bgs (clay layer). VOCs in saturated zone. Perchlorate mostly in saturated zone with some within smear zone.			
	DNAPL Presence Implied?		No.		No.				No.					No.			
Perchlorate (6850)																	
PERCHLORATE	ug/kg	7200	2.05	7060	2500	490	470	<1.3 U	4430	3350	3230	84200	127000	29.2	3730	6480	8830
Volatile Organic Compounds (8260B)																	
1,1,1-TRICHLOROETHANE	ug/kg	20000	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U
1,1,2-TRICHLOROETHANE	ug/kg	500	<1.02 U	<1.01 U	0.568 J	<108 U	<114 U	<0.997 U	<0.98 U	<1.16 U	<0.98 U	1.35	1.38	<1.21 U	<1.06 U	<0.902 U	<0.968 U
1,1-DICHLOROETHANE	ug/kg	1.00E+06	<2.05 U	<2.01 U	1.06 J	<215 U	<229 U	<1.99 U	1.19	1.84	<1.96 U	<2.01 U	<1.89 U	<2.42 U	<2.13 U	<1.8 U	<1.94 U
1,1-DICHLOROETHENE	ug/kg	700	<1.02 U	<1.01 U	0.638 J	<108 U	<114 U	<0.997 U	3.36	3.31	0.832	2.87	3.75	<1.21 U	1.12	4.14	2.71
1,2,4-TRIMETHYLBENZENE	ug/kg		<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U
1,2-DICHLOROETHANE	ug/kg	500	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	6.29	1.84	1.4	2.06	0.841	<1.21 U	1.13	3.22	2.26
2-BUTANONE	ug/kg	6.00E+06	<5.12 U	<5.03 U	<4.69 U	<538 U	<572 U	<4.99 U	<4.9 U	<5.82 U	<4.9 U	<5.02 U	<4.72 U	<6.04 U	<5.32 U	<4.51 U	<4.84 U
ACETONE	ug/kg	102200	<10.2 U	<10.1 U	<9.38 U	<1080 U	<1140 U	<9.97 U	<9.8 U	<11.6 U	<9.8 U	<10 U	<9.45 U	<12.1 U	<10.6 U	<9.02 U	<9.68 U
BENZENE	ug/kg	500	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U	<1.16 U	<0.98 U	<1 U	0.609	<1.21 U	<1.06 U	1.73	1.79
BROMOCHLOROMETHANE	ug/kg		<2.05 U	<2.01 U	<1.88 U	<215 U	<229 U	<1.99 U	<1.96 U	<2.33 U	<1.96 U	<2.01 U	<1.89 U	<2.42 U	<2.13 U	<1.8 U	<1.94 U
CARBON DISULFIDE	ug/kg	102200	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U
CARBON TETRACHLORIDE	ug/kg	500	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	2.75	2.52
CHLOROFORM	ug/kg	514	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	1.69	0.998	0.69	6.65	8.44	0.614	1.91	2.44	2.4
CIS-1,2-DICHLOROETHENE	ug/kg	7000	<1.02 U	2.44	40.2	84.7 J	146 J	<0.997 U	20.7	32.4 J	15.8 J	17	16.6	1.63	2.74	2.18	2.47
ETHYLBENZENE	ug/kg	70000	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U
m,p-Xylene	ug/kg	1000000	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U
METHYLENE CHLORIDE	ug/kg	500	1.92	2.85	<1.88 U	<215 U	<229 U	<1.99 U	<1.96 U	<2.33 U	<1.96 U	1.59	2.62	<2.42 U	<2.13 U	<1.8 U	<1.94 U
NAPHTHALENE	ug/kg	204400	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U
O-XYLENE	ug/kg	1000000	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U
STYRENE	ug/kg	10000	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U
TETRACHLOROETHENE	ug/kg	500	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U
TOLUENE	ug/kg	100000	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U	<1.16 U	<0.98 U	<1 U	<0.945 U	<1.21 U	<1.06 U	<0.902 U	<0.968 U
TRANS-1,2-DICHLOROETHENE	ug/kg	10000	<1.02 U	<1.01 U	<0.938 U	<108 U	<114 U	<0.997 U	<0.98 U	<1.16 U	<0.98 U	0.956	1.68	<1.21 U	<1.06 U	<0.902 U	<0.968 U
TRICHLOROETHENE	ug/kg	500	<1.02 U	11.8	425 J	2220	4260	6.21	5500	3140	3740	10300	25900	44.7	267	3820	1380
VINYL CHLORIDE	ug/kg	200	<2.05 U	1.9	<1.88 U	<215 U	<229 U	<1.99 U	<1.96 U	<2.33 U	<1.96 U	<2.01 U	<1.89 U	<2.42 U	<2.13 U	<1.8 U	<1.94 U

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VOC - volatile organic compound

Table 3-6: Analysis of Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	GWP-Ind	18CPT13 (18-19)-080313 3/8/2013	18CPT13 (27.5-28.5)-080313 3/8/2013	18CPT13 (35-36)-080313 3/8/2013	18CPT13 (43-44)-080313 3/8/2013	18CPT20 (7-8)290313 3/29/2013	18CPT20 (16-17)290313 3/29/2013	18CPT20 (32-33)290313 3/29/2013	18CPT21 (16-17)280313 3/28/2013	18CPT21 (27-28)280313 3/28/2013	18CPT21 (48-49)280313 3/28/2013	18CPT21 (48-49)280313D 3/28/2013
Comments	CPT		Coarse grained	Coarse grained	Coarse to fine	Fine grained	Fine grained	Coarse grained	Coarse to fine grained	Fine grained	Coarse grained	Fine grained	
	MIP		No response. DELCD = 0.7E5	Low FID = 1 E5; DELCD = 0.8 E5	Low DELCD = 0.8 E5	Low DELCD = 1 E5	Initial response: PID 1.1 E5, DELCD = 2 E5	High Response: FID 2.5 E5; PID 2.2 E5; DELCD = 7 E5	Decreasing response: PID 1.5E5; DELCD= 4.5 E5	First MIP response. Low. FID = 0.2 E6; PID = 0.25 E6; DELCD = 0.3 E6	High response. FID = 1.5 E6; PID = 0.9 E6; DELCD = 1.1 E6	2nd high response. FID = 1.2 E6; PID = 0.6 E6; DELCD = 1.1 E6	
	Closest Well: Concentration		102: MC < 0.5 ug/L; TCE = 102 ug/L; Perchlorate = 3260 ug/L.				MW-12: MC < 0.5 ug/L; TCE = 2190 ug/L; Perchlorate = 257 ug/L.			MW-1. MC = 1,1170,000; TCE = 61,500; Perchlorate = 6,940 ug/L			
	Closest Well: GW Elevation (btoc)		No well.				MW-12: 9.79 ft btoc [May 2013 gauging]			MW-1: 27.09 ft btoc [May 2013]			
	Ground Elevation: bgs		Saturated below 25 ft bgs. Clay below 36 ft bgs.				Saturated below 6.8 ft. No defined clay layer.			Saturated below 24 ft [May 2013] from ground level. 18CPT21 is ~6.5 feet higher. Thus saturation at this location would be at a depth of 30.5 feet bgs.			
	Location		Unsaturated	Saturated	Saturated	Saturated	Smear Zone	Saturated	Saturated	Unsaturated	Smear Zone	Saturated	
	Source Exists?		No. First response at 26 ft bgs. No major response observed but DELCD increasing creep observed. VOCs in saturated zone. Perchlorate mostly in saturated zone with some within smear zone.				No. Relatively high TCE in unsaturated zone.			No. Source of contaminants appears to be primarily groundwater. Clean soil between 30 and 47 ft bgs. Clean above 22 ft bgs. Removal of sediments and clay cap eliminiated majority of source and reduced its potential mobility.			
	DNAPL Presence Implied?		No.				No.			Yes.			
Perchlorate (6850)													
PERCHLORATE	ug/kg	7200	1030	5400	6620	4650	16	9000	19000	8.4	18	2100	26000
Volatile Organic Compounds (8260B)													
1,1,1-TRICHLOROETHANE	ug/kg	20000	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	86500 J
1,1,2-TRICHLOROETHANE	ug/kg	500	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U
1,1-DICHLOROETHANE	ug/kg	1.00E+06	<2.03 U	<2.18 U	<1.88 U	<1.9 U	<210 U	<246 U	<217 U	<338 U	<1680 U	<114000 U	<167000 U
1,1-DICHLOROETHENE	ug/kg	700	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	108 J	<108 U	165 J	644 J	<56800 U	<83500 U
1,2,4-TRIMETHYLBENZENE	ug/kg		<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U
1,2-DICHLOROETHANE	ug/kg	500	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U
2-BUTANONE	ug/kg	6.00E+06	<5.08 U	<5.44 U	<4.71 U	<4.75 U	<526 U	<616 U	<542 U	<844 U	<4190 U	<284000 U	<417000 U
ACETONE	ug/kg	102200	<10.2 U	<10.9 U	<9.42 U	<9.5 U	<1050 U	<1230 U	<1080 U	<1690 U	<8390 U	<568000 U	<835000 U
BENZENE	ug/kg	500	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U
BROMOCHLOROMETHANE	ug/kg		<2.03 U	<2.18 U	<1.88 U	<1.9 U	<210 U	<246 U	<217 U	<338 U	<1680 U	<114000 U	<167000 U
CARBON DISULFIDE	ug/kg	102200	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U
CARBON TETRACHLORIDE	ug/kg	500	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U
CHLOROFORM	ug/kg	514	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U
CIS-1,2-DICHLOROETHENE	ug/kg	7000	<1.02 U	<1.09 U	<0.942 U	<0.95 U	2040	5650	103 J	3330	1410 J	<56800 U	<83500 U
ETHYLBENZENE	ug/kg	70000	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	85.3 J	<839 U	<56800 U	<83500 U
m,p-Xylene	ug/kg	1000000	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U
METHYLENE CHLORIDE	ug/kg	500	<2.03 U	1.27	0.966	1.53	<210 UJ	<246 U	<217 U	533 J	108000	2910000 J	6410000
NAPHTHALENE	ug/kg	204400	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U
O-XYLENE	ug/kg	1000000	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U
STYRENE	ug/kg	10000	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	56800 J	139000 J
TETRACHLOROETHENE	ug/kg	500	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	1910	3420 J	41100 J	71300 J
TOLUENE	ug/kg	100000	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	92.7 J	<839 U	<56800 U	<83500 U
TRANS-1,2-DICHLOROETHENE	ug/kg	10000	<1.02 U	<1.09 U	<0.942 U	<0.95 U	<105 U	<123 U	<108 U	<169 U	<839 U	<56800 U	<83500 U
TRICHLOROETHENE	ug/kg	500	<1.02 U	4.83	13.8	8.42	6230	14400	1550	11600	70400	3870000 J	15300000
VINYL CHLORIDE	ug/kg	200	<2.03 U	<2.18 U	<1.88 U	<1.9 U	<210 U	<246 U	<217 U	<338 U	<1680 U	<114000 U	<167000 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

bgs - below ground surface

btoc - below top of casing

CPT - cone-penetrometer testing

DELCD - dry electrolytic conductivity detector

DNAPL - dense non-aqueous phase liquid

FID - flame ionization detector

ft - feet

GW - ground water

J - estimated concentration

MC - methylene chloride

MIP - membrane interface probe

NA - not available

PID - photoionization detector

RSS - Risk Reduction Standard for industrial land use

TCE - trichloroethylene

U - below detection limit

UEP - unlined evaporation pond

ug/kg - microgram per kilograms

ug/L - microgram per liter

VOC - volatile organic compound

Table 3-6: Analysis of Discrete Soil Sample Results - LHAAP 18/24

Sample ID: / Sample Date:	Units	GWP-Ind	18CPT25 (15-16)250313 3/25/2013	18CPT25 (21-22)250313 3/25/2013	18CPT25 (31-32)260313 3/26/2013	18CPT26 (9-10)250313 3/25/2013	18CPT26 (22-23)250313 3/25/2013	18CPT27 (7-8)280313 3/27/2013	18CPT27 (17-18)280313 3/28/2013	18CPT27 (26-27)280313 3/28/2013	18CPT27 (33-34)280313 3/28/2013
Comments	CPT		Fine grained	Fine grained	Coarse grained	Fine grained	Fine grained	Coarse grained	Fine grained	Fine grained	Fine grained
	MIP		First small response. FID = 2.1 E5; PID = 1.4E5; DELCD = 1.8 E5.	V. Low response. DELCD = 1.8 E5.	V. Low response. FID = 1 E5	Peak Response. FID = 1 E6; PID 1E5; DELCD = 0.5 E5.	No response. DELCD = 0.55 E5	First response. Low response. FID = 0.2 E6; PID = 0.2 E6; DELCD = 0.5 E6	Low response. FID = 0.2 E6; PID = 0.2 E6; DELCD = 0.7 E6	Peak response; FID = 2.8 E6; PID = 1 E6; DELCD = 4E6	Second peak; FID = 2.2 E6; PID = 1.2 E6; DELCD = 2E6
	Closest Well: Concentration		MW-2. Within UEP			MW-6. Within UEP. MC < 0.5; TCE = 30.7; perchlorate =8,850		MW-9. Within former ACD area.			
	Closest Well: GW Elevation (btoc)		MW-2: 27.43 ft btoc [May 2013]			MW-6: 23.71 ft btoc [May 2013]		MW-9: Water high is 3.4 below ground surface			
	Ground Elevation: bgs		Saturated below 24.5 ft bgs at MW-2 [May 2013]. 18CPT25 is ~3.7 ft higher and saturation would be at a depth of 28.2 ft bgs. Clay occurs between 33 and 45.			Saturation at 20.7 ft bgs + ~6.5 ft due to UEP mound = ~27 ft bgs.		Saturated below 3.4 ft. Clay layer between 17 and 34 ft bgs.			
	Location		Unsaturated	Unsaturated	Saturated	Unsaturated	Unsaturated	Saturated	Saturated	Saturated	Saturated
	Source Exists?		No. Clean to approximately 12 ft bgs. Likely source is GW. TCE could be a source but higher concentration in GW.			No. Peak MIP levels are low but no detection except for acetone.		No. Rather clean soil to 17 ft bgs per MIP. TCE and MC in unsaturated soil but at much lower concentration than the saturated zone with the exception of cis-1,2-DCE.			
	DNAPL Presence Implied?		No.			No.		Yes.			
Perchlorate (6850)											
PERCHLORATE	ug/kg	7200	4.9	7	NA	2.7	100000	5.7	880	17000	35000
Volatile Organic Compounds (8260B)											
1,1,1-TRICHLOROETHANE	ug/kg	20000	<119 U	<107 U	<142 U	<0.927 U	<1.02 U	344 J	13300	23200	2280 J
1,1,2-TRICHLOROETHANE	ug/kg	500	<119 U	<107 U	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
1,1-DICHLOROETHANE	ug/kg	1.00E+06	<238 U	<214 U	<284 U	<1.85 U	<2.03 U	<244 U	<2320 U	<2150 U	<2390 U
1,1-DICHLOROETHENE	ug/kg	700	117 J	114 J	262 J	<0.927 U	<1.02 U	609 J	3120 J	5260 J	5230 J
1,2,4-TRIMETHYLBENZENE	ug/kg		<119 U	<107 U	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	1420 J	<1200 U
1,2-DICHLOROETHANE	ug/kg	500	<119 U	<107 U	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
2-BUTANONE	ug/kg	6.00E+06	<595 U	<535 U	<709 U	3.43 J	<5.08 U	<610 U	<5810 U	<5370 U	<5980 U
ACETONE	ug/kg	102200	<1190 U	<1070 U	<1420 U	35.1	<10.2 U	<1220 U	<11600 U	<10700 U	<12000 U
BENZENE	ug/kg	500	<119 U	<107 U	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
BROMOCHLOROMETHANE	ug/kg		<238 U	<214 U	<284 U	<1.85 U	<2.03 U	<244 U	<2320 U	<2150 U	<2390 U
CARBON DISULFIDE	ug/kg	102200	<119 U	<107 U	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
CARBON TETRACHLORIDE	ug/kg	500	<119 U	<107 U	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
CHLOROFORM	ug/kg	514	<119 U	<107 U	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	1080 J	<1200 U
CIS-1,2-DICHLOROETHENE	ug/kg	7000	276 J	273 J	211 J	<0.927 U	2.44 J	22800	2190 J	<1070 U	<1200 U
ETHYLBENZENE	ug/kg	70000	<119 U	<107 U	<142 U	<0.927 U	<1.02 U	247 J	<1160 U	<1070 U	<1200 U
m,p-Xylene	ug/kg	1000000	<119 U	<107 U	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	1290 J	<1200 U
METHYLENE CHLORIDE	ug/kg	500	<238 U	<214 U	<284 U	<1.85 U	<2.03 U	3030	47600	4950000	2670000
NAPHTHALENE	ug/kg	204400	<119 U	<107 U	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	1010 J	<1200 U
O-XYLENE	ug/kg	1000000	<119 U	<107 U	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	787 J	<1200 U
STYRENE	ug/kg	10000	<119 U	<107 U	<142 U	<0.927 U	<1.02 U	1140	7050	27500	2870 J
TETRACHLOROETHENE	ug/kg	500	<119 U	<107 U	<142 U	<0.927 U	<1.02 U	<122 U	767 J	1200 J	<1200 U
TOLUENE	ug/kg	100000	<119 U	<107 U	<142 U	<0.927 U	<1.02 U	171 J	<1160 U	1550 J	<1200 U
TRANS-1,2-DICHLOROETHENE	ug/kg	10000	<119 U	<107 U	<142 U	<0.927 U	<1.02 U	<122 U	<1160 U	<1070 U	<1200 U
TRICHLOROETHENE	ug/kg	500	7960	7670	13000	<0.927 U	0.977 J	28200	402000	2830000	460000
VINYL CHLORIDE	ug/kg	200	<238 U	<214 U	<284 U	<1.85 U	<2.03 U	645	<2320 U	<2150 U	<2390 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

Yellow Highlighting Indicates Analyte Detected Above Regulatory Limit

bgs - below ground surface

btoc - below top of casing

CPT - cone-penetrometer testing

DELCD - dry electrolytic conductivity detector

DNAPL - dense non-aqueous phase liquid

FID - flame ionization detector

ft - feet

GW - ground water

J - estimated concentration

MC - methylene chloride

MIP - membrane interface probe

NA - not available

PID - photoionization detector

RSS - Risk Reduction Standard for industrial land use

TCE - trichloroethylene

U - below detection limit

UEP - unlined evaporation pond

ug/kg - microgram per kilograms

ug/L - microgram per liter

VOC - volatile organic compound

Table 3-7: Comparison between CPT Logs and Grain Size Distribution - LHAAP-18/24

Well ID	CPT Interpretation			Sieve Analysis		
				Sampled Interval		Description
	From	To	Description	From	To	
18CPTMW01	16.01	16.4	clayey silt to silty clay	16	17	Clayey Silt (Silt=59%, Clay=25.6%, Sand=15.4%)
	16.4	16.54	silty clay to clay			
	16.54	17.06	clay			
	37.01	37.4	silty sand to sandy silt	37	37.5	Sandy Silt (Silt=66.7%, Sand=23.3%', Clay=10%)
	37.4	37.53	sandy silt to clayey silt			
	40.55	40.81	sandy silt to clayey silt	40.5	41	Silty Clay (Clay=49.2%, Silt=46.7%, , Sand=4.1%)
	40.81	41.01	clayey silt to silty clay			
18CPTMW08	12.47	13.06	silty sand to sandy silt	12.5	13	Silty Sand (Sand=55.4%, Silt=30.9%, Clay=13.7%)
	22.05	22.18	silty sand to sandy silt	22	23	Silty Sand (Sand=54.2%, Silt=34.8%, Clay=11%)
	22.18	22.77	sand to silty sand			
	22.77	22.97	silty sand to sandy silt			
	22.97	23.03	sand to silty sand			
	32.02	32.55	clayey silt to silty clay	32	32.5	Clayey Silt (Silt=58.1%, Clay=25.1%, Sand=16.8%)
	32.55	32.61	sandy silt to clayey silt			
18CPTMW10	16.01	16.21	sand to silty sand	16	17	Silty Clay (Clay=51.6%, Silt=36.2%, Sand=12.1%)
	16.21	16.99	sand			
	16.99	17.06	sand to silty sand			
	18.04	18.63	silty clay to clay	18	19	Clayey Silt (Silt=56.3%, Clay=41.3%, Sand=2.4%)
	18.63	18.90	clayey silt to silty clay			
	18.90	19.03	silty clay to clay			
18CPTMW23	25	25.33	silty sand to sandy silt	25	26	Sand with traces of silt (Sand=89.9%, Silt=6.7%, Clay=3.4%)
	25.33	26.05	sand to silty sand			

NOTES/EXPLANATIONS/ABBREVIATIONS:
CPT - cone-penetrometer testing

Table 3-8: Geotechnical Results - LHAAP-18/24

Well ID	Sampled Interval		Permeability cm/sec	Specific Gravity	Bulk Density lbf/f^3	Porosity	TOC mg/L	% Solids
	From	To						
18CPTMW01	16	17	1.50E-08	2.705	111.7	47.9%	1,540	85.9%
	37	37.5	2.00E-07	2.695	132	35.0%	1,620	84.5%
	40.5	41	1.74E-08	2.650	118	44.1%	2,840	79.0%
18CPTMW08	12.5	13	NA	2.694	119.8	37.3%	464	86.0%
	22	23	NA	2.682	127.4	35.3%	2,190	79.9%
	32	32.5	NA	2.680	131.6	32.9%	1,940	80.9%
18CPTMW10	16	17	NA	2.730	111.7	47.9%	1,480	81.2%
	18	19	NA	2.671	124.4	40.3%	813	78.8%
18CPTMW23*	25	26	NA	2.578	119.1	40.5%	2,960	81.5%

* Due to the sandy nature of the sample, the integrity of the sample may have affected the results for bulk density and porosity.

NOTES/EXPLANATIONS/ABBREVIATIONS:

cm/sec - centimeters per second

lbf/f^3 - foot pound-force

mg/L - milligrams per liter

NA - not available

TOC - total organic carbon

Table 3-9: Monitored Natural Attenuation Parameters - LHAAP-18/24

Sample ID: / Sample Date:	Units	18CPTMW18-051513 5/15/2013	18WW08-051513 5/15/2013	MW8-043013-FD 4/30/2013	MW8-051613 5/16/2013
Dechlorinating Bacteria					
Dehalococcoides	cells/mL	<5.00	<5.00	<5.00	NA
tceA Reductase	cells/mL	<5.00	<5.00	<5.00	NA
BAV1 Vinyl Chloride Reductase	cells/mL	<5.00	<5.00	<5.00	NA
Vinyl Chloride Reductase	cells/mL	<5.00	<5.00	<5.00	NA
Chlorinated Volatile Organic Compounds					
del ^{13C} cis-1,2-dichloroethene		ND	ND	ND	NA
del ^{13C} trichloroethene		-30.8	-30.4	-31	NA
Anions (9056)					
CHLORIDE	mg/L	3190	506	NA	525
SULFATE	mg/L	61.9	222	NA	15.6
Dissolved Gases (RSK-175)					
ETHANE	ug/L	<2 U	<2 U	NA	<2 U
ETHENE	ug/L	<2 U	<2 U	NA	<2 U
METHANE	ug/L	<2 U	<2 U	NA	<2 U
Alkalinity (RSK-176)					
ALKALINITY, TOTAL	mg/L	363	37.3	NA	<20 U
Ferrous Iron (RSK-178)					
FERROUS IRON	mg/L	<0.04 U	0.266	NA	<0.04 U

NOTES/EXPLANATIONS/ABBREVIATIONS:

Blue Highlighting Indicates Analyte Detected Above Reporting Limit

ND Indicates a Non Detect on The Lab Report. No Highlighting is Applied Due to Unknown Limits

ug/L - microgram per liter

cells/mL - cells per milliliter

MCL - maximum contaminantl limit

mg/L - milligram per liter

NA - not available

U - below detection limit

4 INVESTIGATION SUMMARY

4.1 Soil

Assessment of the soil encompassed collection of CPT logs, geologist logs, samples for geotechnical testing, samples for field PID screening, discrete soil and groundwater samples for chemical analysis, and MIP logs.

The information collected from these investigation activities are summarized below.

4.1.1 Hydrogeology

Historical and current data were compiled in a series of cross-section to create a CSM for site stratigraphy and hydrogeology. The following is a summary of findings:

- ESS was used to assess existing and newly-collected soil data from CPT logs, geologist logs, and geotechnical data. Two main hydrogeologic zones were identified: a shallow zone between the ground surface and a depth of 25 to 45 ft bgs, which is underlain by the Wilcox Formation.
- The shallow zone is comprised of intermixed depositional environment of fine-grained soil (e.g., silt and clay) and coarse-grained soil (primarily fine sand). The coarse-grained soil created by levee deposits and channel deposits create a network of pathways for contaminant migration. The thickness of the shallow zone becomes smaller closer to Harrison Bayou to the northwest of the site.
- The Wilcox Formation is comprised primarily of silty fine sands and fine sands, although clay deposits have also been observed within the Wilcox Formation.
- A Wilcox clay layer is identified across the majority of the containment area and to the southwest, southeast, and northeast, separating the shallow zone from the Wilcox Formation. The Wilcox clay thins out and becomes absent in the northwestern corner of the site and to the west and northwest. In these areas, there is a vertical communication between the shallow zone and the Wilcox Formation.

4.1.2 Source Areas

MIP data from 20 locations within the shallow zone provided a synopsis of the presence of VOCs within the unsaturated zone. Samples from the unsaturated soil (vadose zone) were collected and analyzed for CoCs (VOCs and perchlorate). These samples were identified based on MIP responses. A summary of the findings is presented below.

- In many situations, the unsaturated soil contains residual levels of CoCs, primarily identified within the smear zone of groundwater. These CoCs are not considered source areas due to their interaction with and sourcing from groundwater. Smear zone areas include: 18CPT05 (15 to 16 ft bgs) for TCE; 18CPT13 (18 to 19 ft bgs) for perchlorate; and 18CPT20 (7 to 8 ft bgs) for TCE;.
- The only confirmed unsaturated zone source occurred at 18CPT09, outside the containment on the west corner of the site. Perchlorate is present at 6 to 7 ft bgs at a

concentration of 2,500 ug/kg, which is higher than the saturated soil perchlorate concentration of 490 ug/kg identified at 12 to 13 ft bgs.

- Unsaturated soil concentration of CoCs were measured at several locations but the concentrations in the unsaturated soil were lower than the concentrations in the saturated soil. These areas are not considered source areas; however, they could become source areas if concentrations in groundwater decreases as a response to remedial action for example. These areas are:
  - 18CPT06 (19 to 20 ft bgs) for TCE and perchlorate; TCE concentration was 106 ug/kg at 19 to 20 feet bgs and was 219 ug/kg at 38 to 39 feet bgs, while perchlorate concentration was reported at 331 ug/kg at 19 to 20 feet bgs and 824 ug/kg at 38 to 39 feet bgs.
  - 18CPT07 (17 to 18 ft bgs) for perchlorate; perchlorate concentration at 17 to 18 feet bgs was 669 ug/kg and at 29 to 30 feet bgs, perchlorate concentration was 3,780 ug/kg.
  - 18CPT21 (16 to 17 ft bgs) for TCE and methylene chloride; TCE concentration was 11,600 ug/kg at 16 to 17 feet bgs and was 15,300,000 ug/kg at 48 to 49 feet bgs, while methylene chloride concentration was reported at 533 ug/kg at 16 to 17 feet bgs and 6,410,000 ug/kg at 48 to 49 feet bgs.
  - 18CPT25 (15 to 16 ft bgs) for TCE; TCE concentration was 7,960 ug/kg at 15 to 16 feet bgs and was 13,000 ug/kg at 31 to 32 feet bgs.
  - 18CPT27 (7 to 8 ft bgs) for TCE and methylene chloride; TCE concentration was 28,200 ug/kg at 7 to 8 feet bgs and was 2,830,000 ug/kg at 26 to 27 feet bgs, while methylene chloride concentration was reported at 3,030 ug/kg at 7 to 8 feet bgs and 4,950,000 ug/kg at 26 to 27 feet bgs.
- MIP and discrete soil samples were collected from three locations within the former UEP (18CPT21, 18CPT25, and 18CPT26). The results identified the presence of impacts to unsaturated soil and impacts within the saturated zone with no impacts in between. The shallow impact is identified as associated with the former UEP source from the surface impoundment which was not removed when the impoundment was closed and the second deeper impacted zone is associated with groundwater contamination. The shallow impacted soil appears to remain confined within a narrow interval and not migrating vertically (this is due to lack of infiltration associated with the UEP cap). These results indicate the source of contamination in this area is from the saturated zone (i.e., removal of sediments from UEP removed the primary source and the construction of a confining cap reduced infiltration and migration potential).

4.1.3 Potential Contaminant Bypass of ICTs and Liners

Historical data indicated that CoCs present outside the containment area have migrated beyond this area prior to the installation of the ICTs and liners; particularly the area to the southwest. While the presence of liners prevent migration of contaminants from on-site to off-site, the liners also prevent extraction of contaminants on the downgradient side of the ICT.

ICT 12E and ICT 13A do not tie into a clay layer and groundwater migration below the ICTs could continue to occur under observed gradient conditions. While little contamination was observed in the soil at 18CPT09 (21 to 22 ft bgs), **migration of contaminants from on-site to off-site below and between the ICTs (a gap exist between ICT 12E and ICT 13A) could continue to occur with little impedance.** However, the results confirmed the performance of the ICT and liners particularly to the southwest in preventing CoC migration from within the containment.

4.1.4 Presence of DNAPL

Analysis of discrete soil sample concentrations indicated the potential presence of DNAPL at the following locations:

- 18CPT21 for TCE and MC (within UEP) at a depth of 48 to 51 feet bgs in the silty clayey sand to silty clay zone. Migration of DNAPL from this location was determined to be confined to the area of the UEP.
- 18CPT27 for TCE and MC (ACD). TCE DNAPL is likely present between 26 and 34 feet bgs within the Wilcox clay and MC DNAPL was implied between 26 and 27 feet bgs within the Wilcox clay. TCE was implicated as potentially leaking to the Wilcox Formation but MC did not appear to be leaking to the Wilcox Formation.

4.2 Groundwater

Assessment of groundwater entailed completing the following scope of work:

- Collected 15 discrete groundwater samples for VOCs and perchlorate
- Installed 21 monitoring wells
  - 10 Shallow zone wells
  - 7 Upper Wilcox wells
  - 4 Lower Wilcox wells
- Sampled selected existing and new wells for VOCs, perchlorate, and metals.

The results are summarized below.

4.2.1 Distribution of CoCs in Groundwater

The distribution of CoCs in the shallow zone reflects a similar general distribution observed during previous sampling events (i.e.,. the installation and sampling of 21 additional wells did not alter the general distribution of CoCs and areas of high concentrations). However, one important change was observed for perchlorate where the concentration in 18CPTMW22 (newly installed well) indicated the presence of very high perchlorate concentration at 118,000 ug/L just outside the southern extent of the containment area.

The distribution of MC in the shallow zone is well defined in all directions. However, the extent of TCE to the southeast is not well defined based on existing groundwater data but could be defined if samples from monitoring wells 126, C-09, and 17WW08 are collected. The distribution of perchlorate is also defined in all directions with the exception to the southeast and

northwest areas. Delineation of the extent of perchlorate to the southeast of the site would occur if the sampling program included monitoring wells 126 and C-09. To the northwest, delineation of perchlorate can be completed if a monitoring well is installed to the north of 18CPTMW23 within the shallow zone/Wilcox Formation. A deeper monitoring well (~ 55 to 65 ft bgs) adjacent to 18CPTMW23 is also recommended for vertical delineation of perchlorate.

The discrete groundwater samples in the shallow zone collected at 18CPT13, 18CPT15, 18CPT17, 18CPT18, 18CPT19, 18CPT21, and 18CPT25 fall well within the distribution of the CoCs in the shallow zone.

The addition of wells at 11 locations in the Wilcox Formation assisted in improving the distribution of CoCs in that water-bearing zone. MC and TCE in the Wilcox Formation is defined with the exception to the south. Sampling C-01, C-10, and 18WW03 will provide delineation to the extent of MC and TCE in the Wilcox Formation. Perchlorate in the Wilcox Formation is defined in all directions.

The presence of CoCs in the Wilcox Formation likely occurred historically prior to initiation of ICT extraction. Some of the migration in and around the UEP may have occurred due to placement of several historical wells with BH- series that were installed in the late 1980's, that appear to have penetrated the Wilcox clay. These wells which reported very high concentrations of CoCs were plugged in the early 1990's due to concerns about their construction. Vertical migration from the shallow zone to the Wilcox Formation is implicated for TCE and perchlorate in the area of MW-9.

4.2.2 Outside of Containment Area

The installation of 21 new monitoring wells assisted in determining the extent of CoCs outside the containment area in all four directions. Analysis of current data and historical information provided insight about those areas of the site. A summary of the findings is presented below.

4.2.2.1 Southwest Area

- Contaminants migration to the Southwest are impeded by presence of ICTs/liners.
- Presence of CoCs across ICT occurred prior to installation of ICT/liners.
- Vertical migration of TCE and perchlorate into the Wilcox Formation occurred at 18CPT10 and 18CPT12.
- Presence of liner impedes extraction of historically migrated CoCs.

4.2.2.2 Southeast Area

- Perchlorate has migrated beyond boundary limits in this area of the site.
- Barium and arsenic in this area of the site appear to be present above the MCLs.
- Recommend inclusion of C-01, C-09, C-10, and 126 in future groundwater sampling events to provide closure to the extent of CoCs in this area of the site.

4.2.2.3 Northwest Area

- No migration beneath Harrison Bayou was observed based on GW data obtained from 18CPTMW16
- Perchlorate and VOCs have migrated beyond site boundary, mostly on the western portion of this area
- Perchlorate has migrated to 18CPTMW15 primarily in the shallow zone. Based on the vertical concentration profile from discrete groundwater samples, it appears that the presence of contaminants in the Wilcox formation is due to vertical contaminant migration. While vertical migration is occurring, the magnitude is not significant as determined by the over two order of magnitude decrease in concentration of perchlorate between 14 and 18 ft bgs and 38 and 42 ft bgs.
- The horizontal and vertical extent of CoCs is not well defined near 18CPTMW23. Therefore, a shallow monitoring well is proposed closer to Harrison Bayou and a lower Wilcox well is proposed at 18CPTMW23.

4.2.2.4 Northeast Area

- Investigation in this area of the site completed delineation of dissolved phase CoCs in shallow zone.

4.2.3 Horizontal and Vertical Gradients

4.2.3.1 Horizontal Gradients

Groundwater potentiometric in the shallow zone continue to reflect historical trends with a high near the northern and western area of the site within the containment area with gradients in all outward directions. Reversal of gradient is observed in the northeast area outside the containment area influenced by extraction along the northeastern boundary.

Similar observations in the southwest and northwest could not be made as succinctly (although an appearance of reversal of gradient might be established at certain locales such as between MW-18 and MW-8), generally due to the presence of ICT liners preventing free communication between the on-site extraction and off-site groundwater.

4.2.3.2 Vertical Gradients

The data in general indicates an upward gradient between upper Wilcox and the shallow zone within the containment with the exception of areas of MW-5 and 18CPTMW04. The upward gradient is due to groundwater extraction. The vertical gradient near MW-5 between the shallow zone and the Wilcox Formation remains in a downward direction because nearby extraction trenches, ICT 13F and ICT 13G, have little or no extraction of groundwater. Similarly, extraction adjacent to 18CPTMW04 is not occurring since ICT-6 is not operational.

Outside the containment area, the majority of well pairs indicate a downward vertical gradient between the shallow zone and the upper Wilcox Formation with the exception of wells pairs 18WW08/18WW09 and 18WW10/18WW11. The downward gradient reflects natural groundwater vertical gradient not influenced by groundwater extraction. The upward gradient is

observed in the two well pairs closest to Harrison Bayou (18WW08/18WW09), likely a reflection of influence of Harrison Bayou on shallow groundwater elevation.

4.2.4 Metals in Groundwater

In the shallow zone, arsenic, barium, and chromium exceed the MCLs in several wells and are considered chemicals of potential concern. However, concentrations of cadmium, lead, mercury, selenium, and silver are lower than the MCLs and are not considered chemicals of potential concern.

In the Wilcox Formation, arsenic and chromium each exceeded the MCL in one Wilcox well each. Validation of these exceedances is recommended via collection of future groundwater data. No other metal exceeded its MCL in the Wilcox Formation.

4.2.5 Hexavalent Chromium

Hexavalent chromium was not detected in any monitoring well, does not contribute to the total chromium concentration, and is not a chemical of potential concern at the site in the shallow zone groundwater.

5 CONCLUSIONS AND RECOMMENDATIONS

The information presented in this report was based on the PSI WP (AECOM, February 2013) that was reviewed by and concurrence was obtained from the TCEQ and the USEPA before implementation. As presented in this report, the information collected from implementation of the WP investigation scope and field-implemented modifications, resulted in achieving the objectives of the PSI WP. Additional recommended scope of work identified as an outcome of data collection and analysis is presented below.

5.1 Conclusions

The following conclusions can be drawn from this investigation:

1. The lithology data confirmed the updated CSM model and presence of Wilcox clay layer. The lithologic model along with discrete groundwater and soil data, and groundwater compliance sampling data will be analyzed further in the feasibility study to provide a better understanding of contaminant sources, distribution, and potential migration.
2. MIP and discrete soil data allowed assessment of source areas distribution of CoCs at the site:
    a. Presence of DNAPL is implied at 18CPT21 for TCE and MC; and 18CPT27 for TCE and MC
    b. Unsaturated zone source is present for perchlorate at 18CPT09
    c. Presence of CoCs in unsaturated zone in other locations is not currently an important contributor to groundwater.
3. DNAPL at 18CPT21 was located at the Wilcox confining layer at a depth of 48 to 51 feet bgs in the silty clayey sand to silty clay zone. Assessment of potential migration of DNAPL at this location determined that the DNAPL at 18CPT21 will remain confined primarily beneath the former UEP. DNAPL at 18CPT 27 is mainly held in the Wilcox clay but potential leakage of TCE vertically to the Wilcox Formation was implied based on the analytical results. The same was not identified for methylene chloride.
4. ICT extraction results in reversal of vertical gradient in several areas within containment and prevents further migration of CoCs from the shallow zone to the Wilcox Formation.
5. Shallow impact within the UEP is associated with the former UEP source which remained after the removal when the impoundment was closed and deeper impact within the saturated zone is associated with groundwater contamination.
6. Migration of CoCs from on-site to off-site below and between ICT 12E and ICT 13A could continue to occur with little impedance but does not appear to be significant since little contamination in the saturated zone was identified in 18CPT09 (21 to 22 ft bgs) or in C-02 located outside the containment area. The performance of the ICT and liners particularly to the southwest has been confirmed in preventing CoC migration from within the containment.
7. Migration of CoCs beneath Harrison Bayou has not occurred. A hydraulic divide is apparent at Harrison Bayou as depicted in Figure 3-1 that prevents contaminant from migrating past the bayou.

8. The source of contamination outside the southwest boundary occurred prior to ICT extraction system installation in 1997.
9. High CoC concentrations in shallow water-bearing zone exceeding MCL detected primarily in former UEP area, ACD area, and burn pit areas.
10. Delineation of CoCs in groundwater is complete in all direction except to the north of 18CPTMW23 for perchlorate and VOCs.
11. High perchlorate concentrations exceeding medium specific concentration have migrated to the southern area outside the site boundary but delineation can be accomplished by sampling C-01, C-09, C-10, and 126.
12. High barium and arsenic exceeding MCL is present in the southeastern area of the site that extends beyond the southern boundary of the site.
13. Cadmium, lead, mercury, silver, selenium, and hexavalent chromium are below the MCL in all wells.

5.2 Recommendations

The following recommendations are made based on analysis of the data collected and the site conceptual model:

- Continue ICT operations, which results in reversal of vertical gradients in several areas of the site inside the containment and prevents vertical migration from the shallow zone to the Wilcox Formation. ICTs also result in flattening or reversal of horizontal gradient particularly in the northeastern area of the site.
- Include monitoring wells 126, C-09, and 17WW08 for TCE analysis and monitoring wells 126, C-09, C-01, and C-10 for perchlorate in future sampling events.
- Install a horizontal delineation well north of 18CPTMW23 and a vertical delineation well at 18CPTMW23.
- The Final Remedy will need to address contamination outside the ICT/containment area.

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APPENDIX A: Field Boring Logs & CPT/MIP Logs

Appendix A - Boring and CPT Logs - Cross-Reference Summary

Boring Log	From Page	To Page	Boring Log Information	Description	Depth Designation
18CPTMW01SW	1	1	18CPTMW01DW (page 2)	Well Log	Shallow Wilcox
18CPTMW01DW	2	6	--	Boring/Well Log	Deep Wilcox
18CPT01	7	7	18CPTMW01DW (page 2)	CPT Log	Shallow Wilcox
18CPT01 MIP	8	8	18CPTMW01DW (page 2)	MIP Log	Shallow Zone
18CPT02	9	10	18CPT02 (page 9)	Boring Log	Shallow Zone
18CPT02	11	11	18CPT02 (page 9)	CPT Log	Shallow Zone
18CPT02 MIP	12	12	18CPT02 (page 9)	MIP Log	Shallow Zone
18CPT03	13	14	18CPT03 (page 13)	Boring Log	Shallow Zone
18CPT03	15	15	18CPT03 (page 13)	CPT Log	Shallow Zone
18CPT03	16	16	18CPT03 (page 13)	MIP Log	Shallow Zone
18CPTMW04SW	17	20	18CPTMW04SW (page 17)	Boring/Well Log	Shallow Wilcox
18CPTMW04	21	22	18CPTMW04SW (page 17)	Well Log	Shallow Wilcox
18CPT04	23	23	18CPTMW04SW (page 17)	CPT Log	Shallow Zone
18CPT04 MIP	24	24	18CPTMW04SW (page 17)	MIP Log	Shallow Zone
18CPT05	25	26	18CPT05 (page 25)	Boring Log	Shallow Zone
18CPT05	27	27	18CPT05 (page 25)	CPT Log	Shallow Zone
18CPT05 MIP	28	28	18CPT05 (page 25)	MIP Log	Shallow Zone
18CPTMW06SW	29	32	18CPTMW06SW (page 29)	Boring/Well Log	Shallow Wilcox
18CPT06	33	33	18CPTMW06SW (page 29)	CPT Log	Shallow Zone
18CPT06 MIP	34	34	18CPTMW06SW (page 29)	MIP Log	Shallow Zone
18CPTMW07SW	35	38	18CPTMW07SW (page 35)	Boring/Well Log	Shallow Wilcox
18CPT07	39	39	18CPTMW07SW (page 35)	CPT Log	Shallow Zone
18CPT07 MIP	40	40	18CPTMW07SW (page 35)	MIP Log	Shallow Zone
18CPTMW08SW	41	41	18CPTMW08DW (page 42)	Well Log	Shallow Wilcox
18CPTMW08DW	42	46	18CPTMW08DW (page 42)	Boring/Well Log	Deep Wilcox
18CPT08	47	47	18CPTMW08DW (page 42)	CPT Log	Shallow Zone
18CPT08 MIP	48	48	18CPTMW08DW (page 42)	MIP Log	Shallow Zone
18CPT09	49	49	18CPT09 (page 49)	Boring Log	Shallow Zone
18CPT09	50	50	18CPT09 (page 49)	CPT Log	Shallow Zone
18CPT09 MIP	51	51	18CPT09 (page 49)	MIP Log	Shallow Zone
18CPTMW10SW	52	52	18CPTMW10DW (page 53)	Well Log	Shallow Wilcox
18CPTMW10DW	53	57	18CPTMW10DW (page 53)	Boring/Well Log	Deep Wilcox
18CPT10	58	58	18CPTMW10DW (page 53)	CPT Log	Shallow Zone
18CPT10 MIP	59	59	18CPTMW10DW (page 53)	MIP Log	Shallow Zone
18CPT11	60	60	18CPT11 (page 60)	CPT Log	Shallow Zone
18CPT11 MIP	61	61	18CPT11 (page 60)	MIP Log	Shallow Zone
18CPTMW12SW	62	62	18CPTMW12DW (page 63)	Well Log	Shallow Wilcox
18CPTMW12DW	63	67	18CPTMW12DW (page 63)	Boring/Well Log	Deep Wilcox
18CPT12	68	68	18CPTMW12DW (page 63)	CPT Log	Shallow Zone
18CPT12 MIP	69	69	18CPTMW12DW (page 63)	MIP Log	Shallow Zone
18CPT13	70	72	18CPT13 (page 70)	Boring Log	Shallow Zone
18CPT13	73	73	18CPT13 (page 70)	CPT Log	Shallow Zone
18CPT13 MIP	74	74	18CPT13 (page 70)	MIP Log	Shallow Zone
18CPTMW14	75	75	18CPT14 (page 76)	Well Log	Shallow Zone
18CPT14	76	76	18CPT14 (page 76)	CPT Log	Shallow Zone
18CPT14 MIP	77	77	18CPT14 (page 76)	MIP Log	Shallow Zone

Boring Log	From Page	To Page	Boring Log Information	Description	Depth Designation
18CPTMW15	78	79	18CPT15 (page 80)	Well Log	Shallow Zone
18CPT15	80	80	18CPT15 (page 80)	CPT Log	Shallow Zone
18CPTMW16	81	83	18CPTMW16 (page 81)	Boring/Well Log	Shallow Zone
18CPT17	84	86	18CPT17 (page 84)	Boring Log	Shallow Zone
18CPTMW18	87	89	18CPTMW18 (page 87)	Boring/Well Log	Shallow Zone
18CPTMW19	90	91	18CPTMW19 (page 90)	Boring/Well Log	Shallow Zone
18CPT19	92	92	18CPTMW19 (page 90)	CPT Log	Shallow Zone
18CPT20	93	93	18CPT20 (page 93)	Boring Log	Shallow Zone
18CPT20	94	94	18CPT20 (page 93)	CPT Log	Shallow Zone
18CPT20 MIP	95	95	18CPT20 (page 93)	MIP Log	Shallow Zone
18CPT21	96	97	18CPT21 (page 96)	Boring Log	Shallow Zone
18CPT21	98	98	18CPT21 (page 96)	CPT Log	Shallow Zone
18CPT21 MIP	99	99	18CPT21 (page 96)	MIP Log	Shallow Zone
18CPTMW22	100	101	18CPT22 (page 102)	Well Log	Shallow Zone
18CPT22	102	102	18CPT22 (page 102)	CPT Log	Shallow Zone
18CPT22 MIP	103	103	18CPT22 (page 102)	MIP Log	Shallow Zone
18CPTMW23	104	105	18CPTMW23 (page 104)	Boring/Well Log	Shallow Zone
18CPT23	106	106	18CPTMW23 (page 104)	CPT Log	Shallow Zone
18CPTMW24	107	107	18CPT24 (page 108)	Well Log	Shallow Zone
18CPT24	108	108	18CPT24 (page 108)	CPT Log	Shallow Zone
18CPT25	109	110	18CPT25 (page 109/111)	Boring Log (partial)	Shallow Zone
18CPT25	111	111	18CPT25 (page 109/111)	CPT Log	Shallow Zone
18CPT25 MIP	112	112	18CPT25 (page 109/111)	MIP Log	Shallow Zone
18CPT26	113	114	18CPT26 (page 113/115)	Boring Log (partial)	Shallow Zone
18CPT26	115	115	18CPT26 (page 113/115)	CPT Log	Shallow Zone
18CPT26 MIP	116	116	18CPT26 (page 113/115)	MIP Log	Shallow Zone
18CPT27	117	118	18CPT27 (page 117)	Boring Log	Shallow Zone
18CPT27	119	119	18CPT27 (page 117)	CPT Log	Shallow Zone
18CPT27	120	120	18CPT27 (page 117)	MIP Log	Shallow Zone
18SB01-2013	121	123	18SB01-2013 (page 121)	Boring Log	Shallow Zone
18SB02-2013	124	126	18SB02-2013 (page 124)	Boring Log	Shallow Zone
18WW22	127	128	C-04 (page 129)	Well Log	Shallow Zone
C-04	129			Boring/Well Log	Shallow Wilcox

18CPTMW01SW

AECOM

Client: USACE	BORING ID: ~~18CPT MW 01SW~~
Project Number: 60274185	
Site Location: LHAAP SITE 18/24	Sheet: 1 of 1
Coordinates: / Elevation:	Monitoring Well Installed: YES
Drilling Method: MUD ROTARY	Screened Interval: 53 - 62.6
Sample Type(s): / Boring Diameter: 8" 14"	Depth of Boring: 63
Weather: / Logged By: / Date/Time Started: 5/8/13	Water Level: NA
Drilling Contractor: / Ground Elevation: / Date/Time Finished:	

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
							FOR LITHOLOGY DESCRIPTIONS SEE BORING LOG 18CPT MW-01DW		
							14" BORE HOLE		
							10" DIAM. SCH. 40 PVC SURFACE CASING		
							8" BORE HOLE		36.5
							3/8" BENTONITE PELLETS		
							4" DIAM. SCH. 40 PVC WELL CASING		50.6
							20/40 SILICA SAND		53
							0.01" SCH. 40 PVC ~~WELL~~ SLOTTED SCREEN		62.5
									63

NOTES: CENTRALIZERS AT MID POINTS 17', 46.5', 62'

Date	Time	Depth to groundwater while drilling

Checked by Date:

00122645

18CPTMW01DW

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP SITE 18/24
Coordinates:	Elevation:
Drilling Method:	HSA CPT, MUD ROTARY
Sample Type(s):	5' CORE BARREL Boring Diameter: 8 1/4"
Weather:	PTLY CLOUDY, 50's WINDY
Logged By:	CS / GK
Date/Time Started:	2/26/13
Drilling Contractor:	ETTL
Ground Elevation:	
Date/Time Finished:	3/1/13

BORING ID: ~~MW~~ ~~18CPTM01DW~~
Sheet: 1 of 5
Monitoring Well Installed: YES
Screened Interval: 88.6 - 97.2
Depth of Boring: 102'
Water Level: N/A

HSA = 8 1/4" CPT = 2", MUD ROTARY 14" x 8"

Depth (ft)	Geologic sample ID	Sample Depth (ft)	~~Blows per 6"~~	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample Depth (ft)~~
1							SILTY FINE SAND, YELLOWISH BROWN, DAMP		
2			DRILLED & SAMPLED 2/26/13			SM	2' MOTTLED YELLOWISH BROWN & REDDISH BROWN		
3									
4							4' SANDY CLAY, REDDISH BROWN, DAMP, VERY STIFF, MEDIUM PLASTICITY		
5						CL			
6									
1335 7	X	GEOTECH 6-7		100%			6' SILTY CLAY, MOTTLED GRAY AND YELLOWISH BROWN, MOIST, ~~MEDIUM~~ VERY STIFF, MEDIUM PLASTICITY		
1340 8	X	18CPT-01 7-8				CL			
9						SM	8.5' SILTY SAND, YELLOWISH BROWN, MOIST, W/ LAMINATIONS OF GRAY CLAY		
10			DRILLED & SAMPLED 2/27/13				9.0' SILTY CLAY, YELLOWISH BROWN, MOIST, MEDIUM STIFF, MEDIUM PLASTICITY		
11									
12				50%		CL			
13							13' SAME AS ABOVE W/ TRACE OF ~~CLAY~~ MOTTLED GRAY & ORANGE, STIFF, MOIST, MEDIUM PLASTICITY		
14									
15									
1310 16	X	18CPT-01 15-16'		100%	2.1		16' SILTY FINE SAND, YELLOWISH BROWN, DAMP		
1315 17	X	GEOTECH 16-17'							
18						SM	18' YELLOWISH BROWN & GRAY MOTTLING		
19									
20									

10" SURFACE CASING

4" WELL CASING

14" DRILL HOLE

CEMENT/BENTONITE GROUT

SAND

Date	Time	Depth to groundwater while drilling

NOTES:

Checked by Date

18CPTMW01DW

AECOM

Client: USACE	BORING ID: ~~18CPT-01~~
Project Number: 60274185	
Site Location: LHAAP SITE 18/24	
Coordinates:	Elevation:
Drilling Method: HSA, CPT, MUD ROTARY	Sheet: 2 of 5
Sample Type(s): 5' SPLIT CORE, BARREL	Boring Diameter:
Monitoring Well Installed:	Screened Interval:
Weather:	Logged By: CS / GH
Date/Time Started:	Depth of Boring:
Drilling Contractor: ETTL	Ground Elevation:
Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Well Construction
20							20' FINE SAND, YELLOWISH BROWN		
1						SP			
2				100%			CENTRALIZER		
3							23' CLAYEY SAND, YELLOWISH BROWN, MOIST		X
4						SC	10" SURFACE CASING		
5						SP	25' FINE SAND, BROWN, WET		
6				100%			26' CLAY, GRAY, MOIST, STIFF, HIGH PLASTICITY		14" DIAM HOLE
7						CH			
8							28' FINE SAND, BROWN, WET		4" WELL CASING
9						SP			
30									
11									
1400 12	X	18CPT-01 31-32'		100%	142	CH	31' CLAY, GRAY, MOIST, VERY STIFF, HIGH PLASTICITY		
13						CL	32.5' SILTY CLAY, GRAY w/ YELLOWISH BROWN MOTTLING, MOIST, VERY STIFF, MEDIUM PLASTICITY		
14									
15							34' SILTY FINE SAND, BROWN, WET		
16						SM			
1420 17	X	GEOTECH ~~47-47.5~~ 37-37.5		100%			CONCRETE / BENTONITE GROUT		
18									
19							38.5' CLAY, GRAY, MOIST, STIFF, HIGH PLASTICITY		
40						CH			

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by Date

00122647

18CPTMW01DW

AECOM	Client: USACE	BORING ID: ~~18CPT-01~~
	Project Number: 60274185	
	Site Location: LHAAP Site 18/24	
	Coordinates: Elevation:	Sheet: 3 of 5
	Drilling Method: HSA	Monitoring Well Installed:
	Sample Type(s): 5' SA, 5' Core Barrel Boring Diameter: 8 1/4"	Screened Interval:
Weather:	Logged By: CS / GH Date/Time Started:	Depth of Boring:
Drilling Contractor: ETTL	Ground Elevation: Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample Depth (Ft)~~ Well Construction
40' 1425 1430	X X	18CPT01,40-40.5 Geotech 40.5-41'			430	CH	SAME AS ABOVE BOTTOM OF 10" SURFACE CASING → 41'		
1									
2									
3							TD. 42' w/HSA		
4									
5							LOGGED HOLE TO 69' USING CPT RIG ON 3/26/13		
6									
7									
8							4" WELL CASING IN 8" DIAM. HOLE →		
9									
50									
11									
12							CENTRALIZER →		
13							PORTLAND TYPE I/II - CEMENT w/BENTONITE GROUT →		
14									
15									
16									
17									
18									
19									
60									

NOTES: ON 2/27/13 BORE HOLE REAMED w/14" IMA ROTARY DRILL BIT TO 40' 10" DIAMETER CASING WAS INSTALLED TO 41' BGS BORE HOLE WAS EXTENDED TO 102' BGS ON 3/19/13. MONITORING WELL w/4" CASING & 10' SCREEN INSTALLED TO 98' BGS. SEE WELL COMPLETION

Date	Time	Depth to groundwater while drilling

Checked by Date

18CPTMW01DW

AECOM

Client: USACE		BORING ID: ~~18CPT-01~~
Project Number: 60274185		
Site Location: LHAAP SITE 18/24		
Coordinates:	Elevation:	Sheet: 4 of 5
Drilling Method:		Monitoring Well Installed:
Sample Type(s):	Boring Diameter:	Screened Interval:
Weather:	Logged By: / Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation: / Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Test Sample Depth (ft)~~ WELL CONSTRUCTION
60									
1							SEE CPT BORING LOG FOR LITHOLOGY		X
2									
3									X
4									
5							4" WELL CASING		
6									X
7									
8									
9							PORTLAND TYPE I/II CEMENT/BENTONITE GROUT		X
70	X	HYDROPUNCH 18CPT-01 3/6/13	69.5-70.5						
11						SP/SM	EXTENDED BOREHOLE W/8" DRILL BIT ON 3/19/13		X
12									
13							CUTTINGS REVEAL PRIMARILY FINE SANDS TO TD & SILTY SANDS		X
14									
15									
16									X
17									
18									X
19									
20									X

NOTES:

Date	Time	Depth to groundwater while drilling

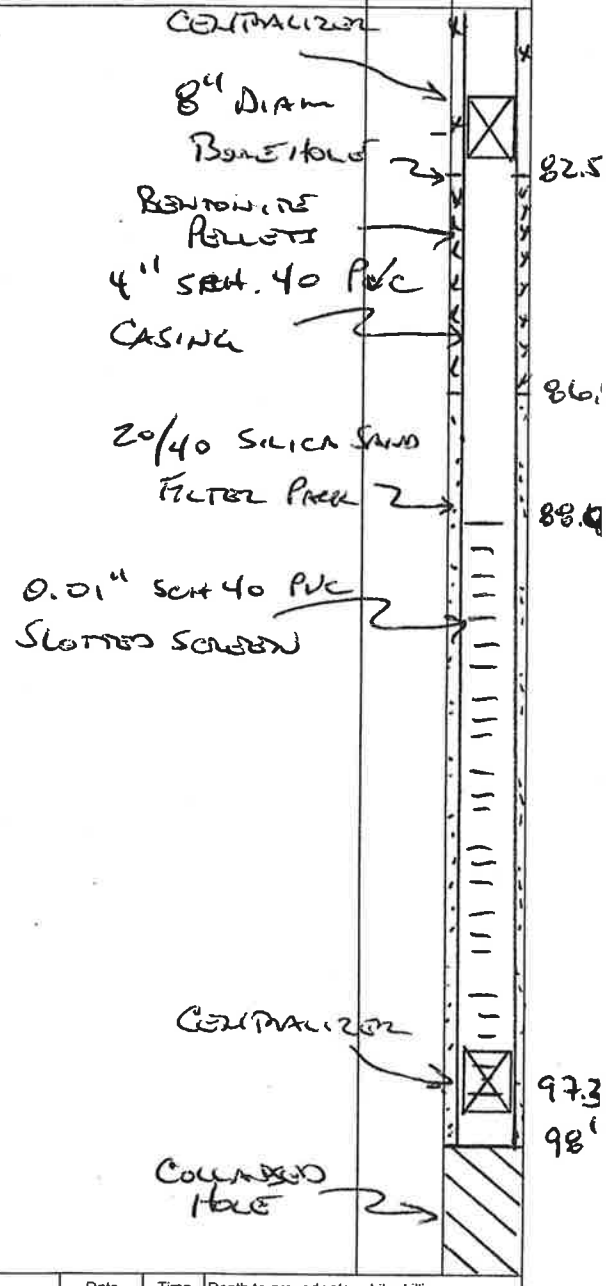
Checked by: Date:

18CPTMW01DW

AECOM

Client: USACE			BORING ID: ~~18CPT-01~~
Project Number: 60274185			
Site Location:			
Coordinates:	Elevation:		Sheet: 5 of 5
Drilling Method:			Monitoring Well Installed:
Sample Type(s):	Boring Diameter:		Screened Interval:
Weather:	Logged By:	Date/Time Started:	Depth of Boring:
Drilling Contractor: ETR	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
80									
1						SP/SM			
2									
3									
4									
5									
6									
7									
8									
9									
90									
11									
12									
13									
14									
15									
16									
17									
18									
19									
100									



NOTES: TOTAL BOREHOLE DEPTH = 102'
HOLE COLLAPSED TO 98'
WELL DEPTH @ 98'

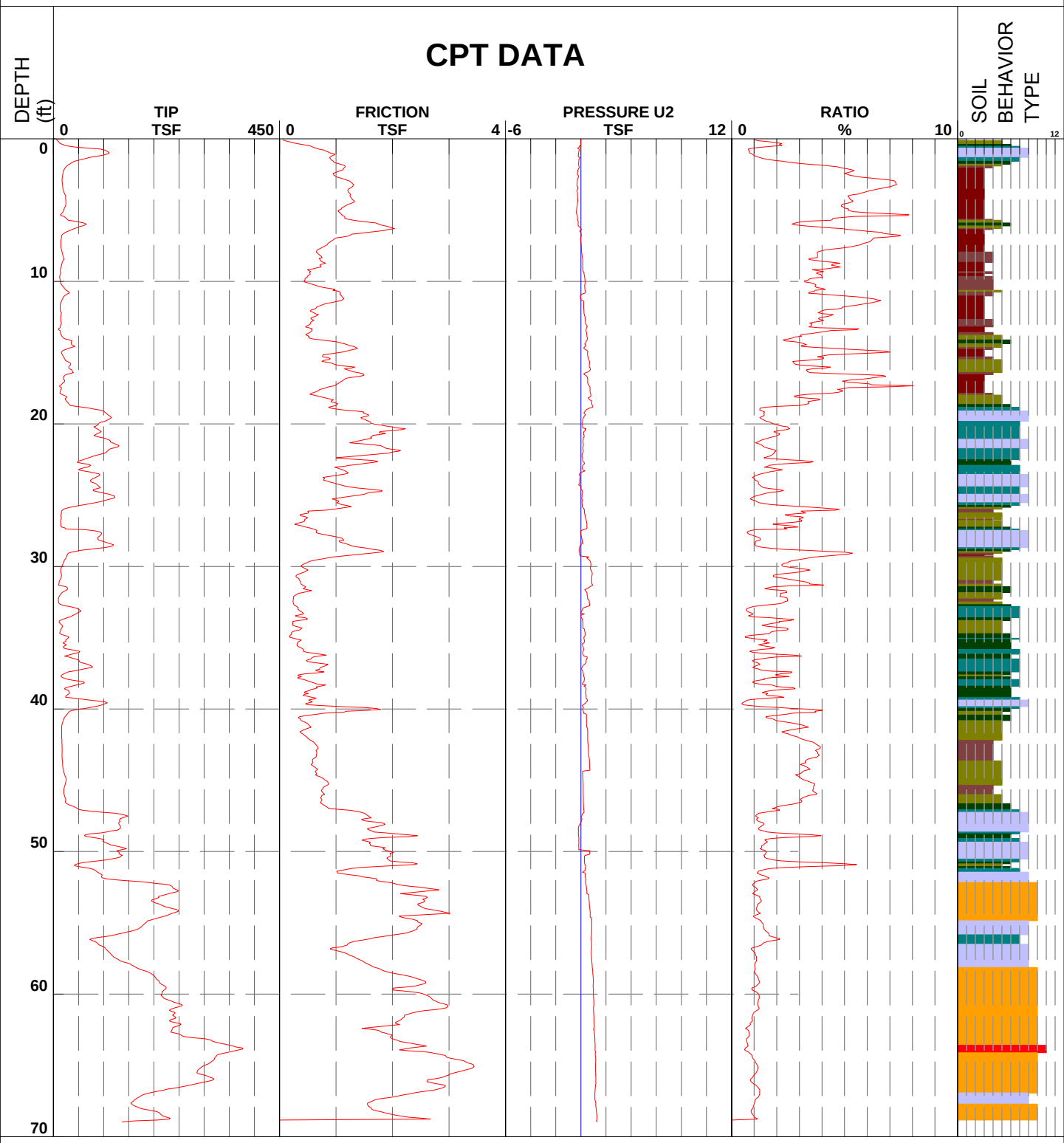
Date	Time	Depth to groundwater while drilling

Checked by _____ Date: _____

00122650

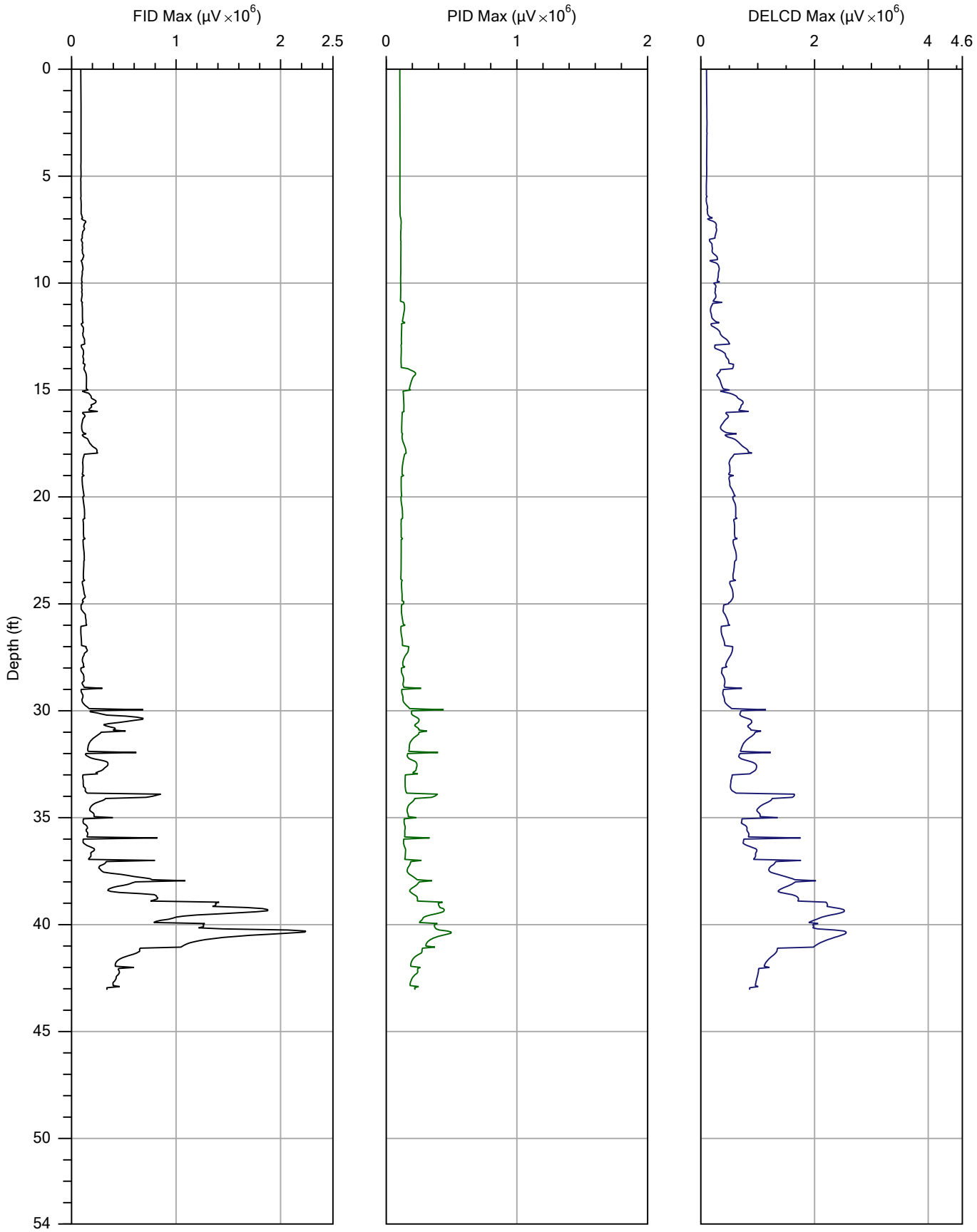
Job Number	04.1913-0010	CPT Number	18CPT01	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	26-Feb-2013 09:16:13	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



		File: 18MIP01.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 2/26/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

AECOM

Client: U.S. ALE			BORING ID: 18CPT02
Project Number:			
Site Location: LHAAP 18/24			
Coordinates:	Elevation:		Sheet: 1 of 2
Drilling Method: Geoprobe 6600			Monitoring Well Installed:
Sample Type(s): Grab	Boring Diameter: 2"		Screened Interval:
Weather: Clear, windy	Logged By: [illegible]	Date/Time Started: 3-28-13	Depth of Boring: 45'
Drilling Contractor: ETTL	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
							Discontinuous Sampling		
1				95%	.	CL	5-6 - Silty Clay, Lt. brown and Lt. grey stiff, moist, pockets of silt, ~~pockets~~ pieces of organics		
2									
3						SM	6-6.5 - Silty Sand, fine grained, poorly graded, moist, yellowish brown		
4									
5	8-9	X	@ 1040		Ø	CL	6.5-10 - Silty Clay, mostly Lt. grey, yellowish brown, moist stiff		
6									
7									
8							Discontinuous Sampling		
9	21-22	X	@ 1115	90%	Ø	CL	20-25 - Silty Clay, Lt. grey and yellowish brown, moist, stiff		
10							-22.5-23 - pocket of ~~silt~~ Clayey silt, moist, Lt. Grey / yellowish brown		
11									
12							Discontinuous sampling		
13				90%		CL	25-27 - Silty Clay, Lt. grey and yellowish brown, moist, stiff.		
14									
15						CL	27-28 - Silty Clay, Greyish brown, moist, stiff		
16						SM	28-29.7 - Silty fine Sand, poorly graded, moist		
17	29-30	X	@ 1130		3.4				
18						ML	29.7-30 - Clayey silt, moist, Lt. Grey		
19									
20									

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date 3-28-13

AECOM

Client: USALE			BORING ID: 18CPT02
Project Number:			
Site Location: LHnap 18/24			
Coordinates:	Elevation:		Sheet: 2 of 2
Drilling Method: Geoprobe 6600			Monitoring Well Installed:
Sample Type(s): Grab	Boring Diameter: 2"		Screened Interval:
Weather: Clear, windy	Logged By: J	Date/Time Started: 3-28-13	Depth of Boring: 45'
Drilling Contractor: ETTL	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1				100%		CL	40-41 - Silty Clay w/ Sand, soft, wet Lt. grey and yellowish brown		
2									
3	41-42		1155		54.2	CL	41-42.5 - Silt, Clay, Lt. grey and yellowish brown, med. stiff to stiff, moist,		
4									
5									
6						CH	42.5-45 - Clay, Grey, moist, stiff		
7									
8									
9							TD = 45'		
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

NOTES:

Date	Time	Depth to groundwater while drilling

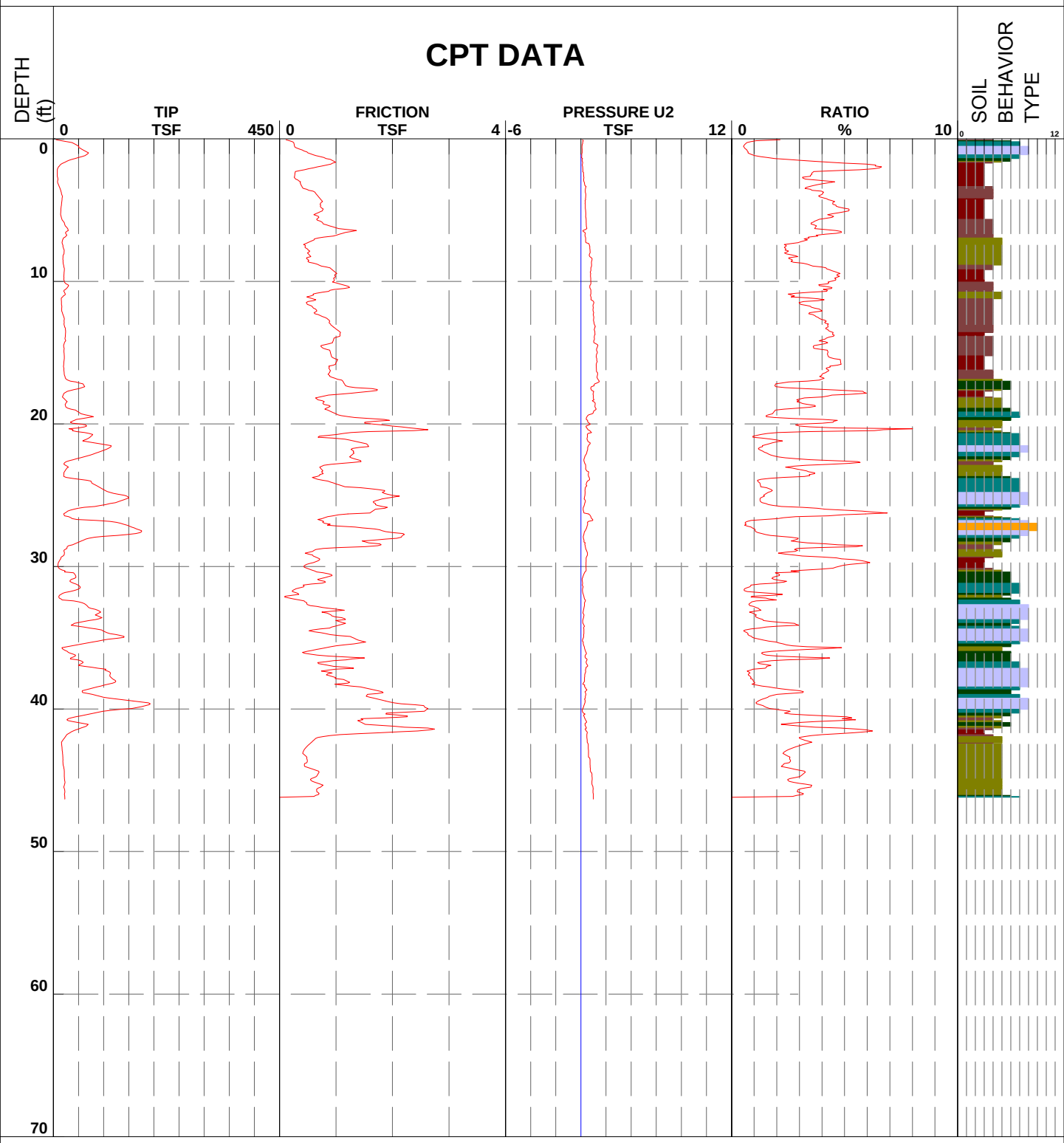
Checked by _____ Date 3-28-13

5.1.2

00122654

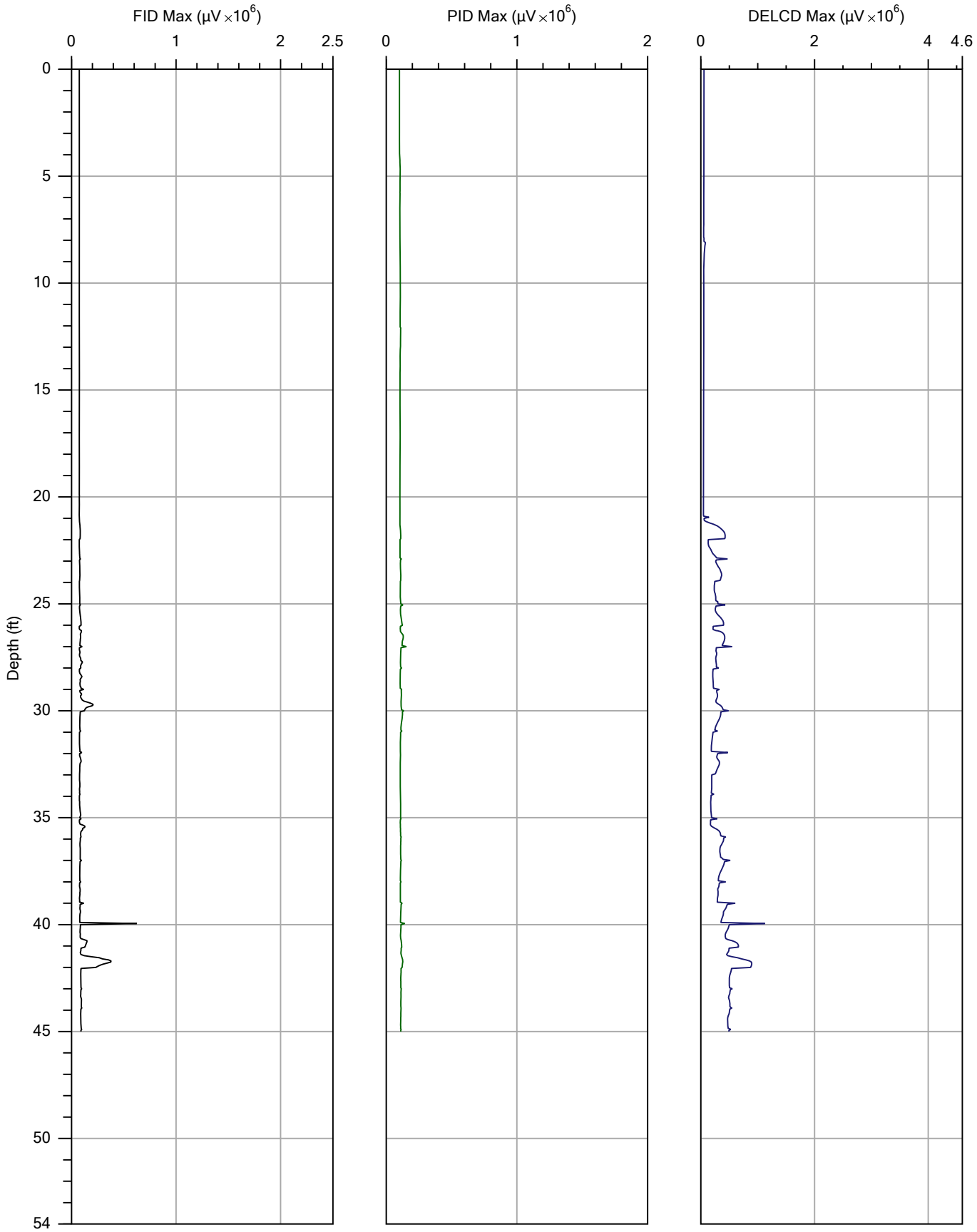
Job Number	04.1913-0010	CPT Number	18CPT02	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	28-Feb-2013 08:23:23	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



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Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 2/28/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

AECOM

Client: USACE	Start Time = 1330		BORING ID: 18CPT03
Project Number:			
Site Location: Longhorn LHAAP, Karnack TX			
Coordinates:	Elevation:		Sheet: 1 of ~~1~~ 2
Drilling Method: Direct Push 6600 - Truck mounted			Monitoring Well Installed: NO
Sample Type(s): Grab	Boring Diameter: 2"		Screened Interval:
Weather: clear ~50°F	Logged By: [illegible]	Date/Time Started: 3-11-13	Depth of Boring: 44'
Drilling Contractor: ETTL	Ground Elevation:	Date/Time Finished:	Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1				100%		SM	0-3 Sandy Silt, Reddish brown and brown, ~~&~~ moist.		
2									
3						CH	3-7 - Silty Clay, reddish brown and Lt. Grey, moist, stiff		
4									
5									
6				100%		CL	7-7.5 - Silty clay, Reddish brown, moist, stiff		
7						CH	7.5-13' Silty clay, Lt. Grey to Reddish brown, moist, stiff, oxydation present.		
8									
9		10-11	(1340)		0.0				
10									
11				100%					
12									
13						SM	13-15 - Silty Sand, Lt. Grey and reddish brown, moist-wet, loose		
14						SM	15-16 - Silty Sand, wet, loose, Lt. Grey, reddish brown		
15									
16				90%		CH	16-18 - Silty Clay, Lt. Grey, reddish brown, stiff, moist.		
17									
18		21-22	(1415)		0.0	ML ~~SM~~ ~~CL~~	18-20 - Silty fine Sand, Lt. Grey, reddish brown, moist.		
19									
20							20-22 - Silty Sand, Lt. Grey, reddish brown, loose, wet.		

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date 3/11/13

AECOM

Client: USACE	Time Started: 1330	BORING ID: 18CPT03	
Project Number:			
Site Location: Longhorn, Karnack TX			
Coordinates:	Elevation:	Sheet: 2 of 2	
Drilling Method: Direct Push - 6600 - Truck mounted		Monitoring Well Installed: no	
Sample Type(s): Grab	Boring Diameter: 2"	Screened Interval: —	
Weather: Clear ~ 50° F	Logged By: [illegible]	Date/Time Started: 3·11·13	Depth of Boring: 44'
Drilling Contractor: ETTL	Ground Elevation:	Date/Time Finished:	Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
				95%		SP	22-25 - Sand, poorly graded, fine grained, loose moist.		
3						SM	25-28 - Sandy silt, lt. Grey and brown, moist to wet, less dense.		
5						ML	28-30 - Silty fine sand, brown, moist to wet		
6				95%		CH	30-35 ~~Clayey silt~~ silty clay ~~silty clay~~, Lt. Grey and reddish brown, moist - wet, soft - medium interbedded sandy silt.		
7		34-35	(1440)		14.1				
9					SC	SM	35-40 silty sand, Lt. grey and brown, moist - wet, soft - medium layers of silty clay throughout.		
11				95%					
12		43-44	(1545)		0.0	CH	40-44 - Silty clay, Lt. grey and brown, moist, stiff.		
15							TD = 44' bgs		

NOTES:

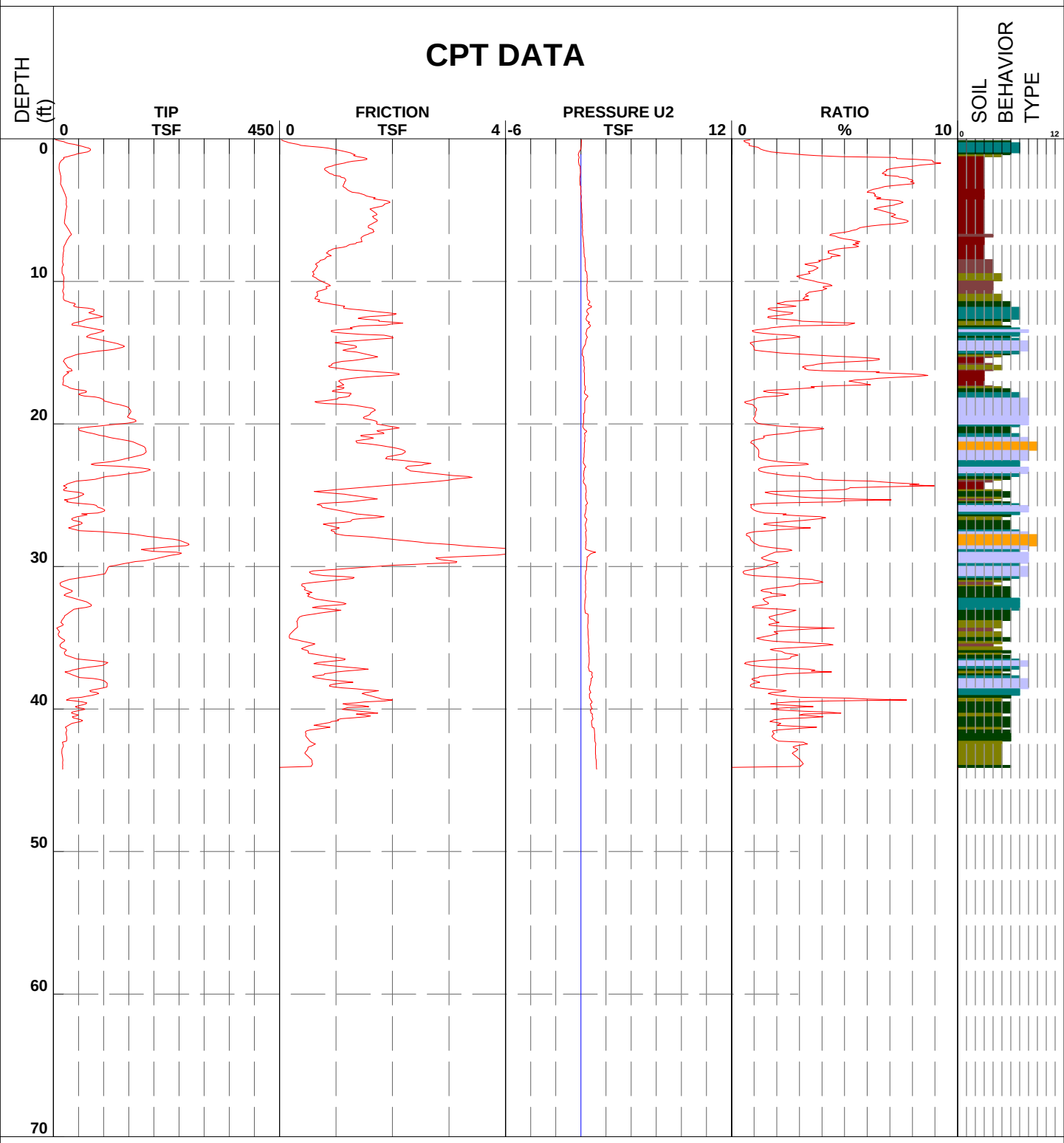
Date	Time	Depth to groundwater while drilling

Checked by _____ Date 3/11/13

00122658

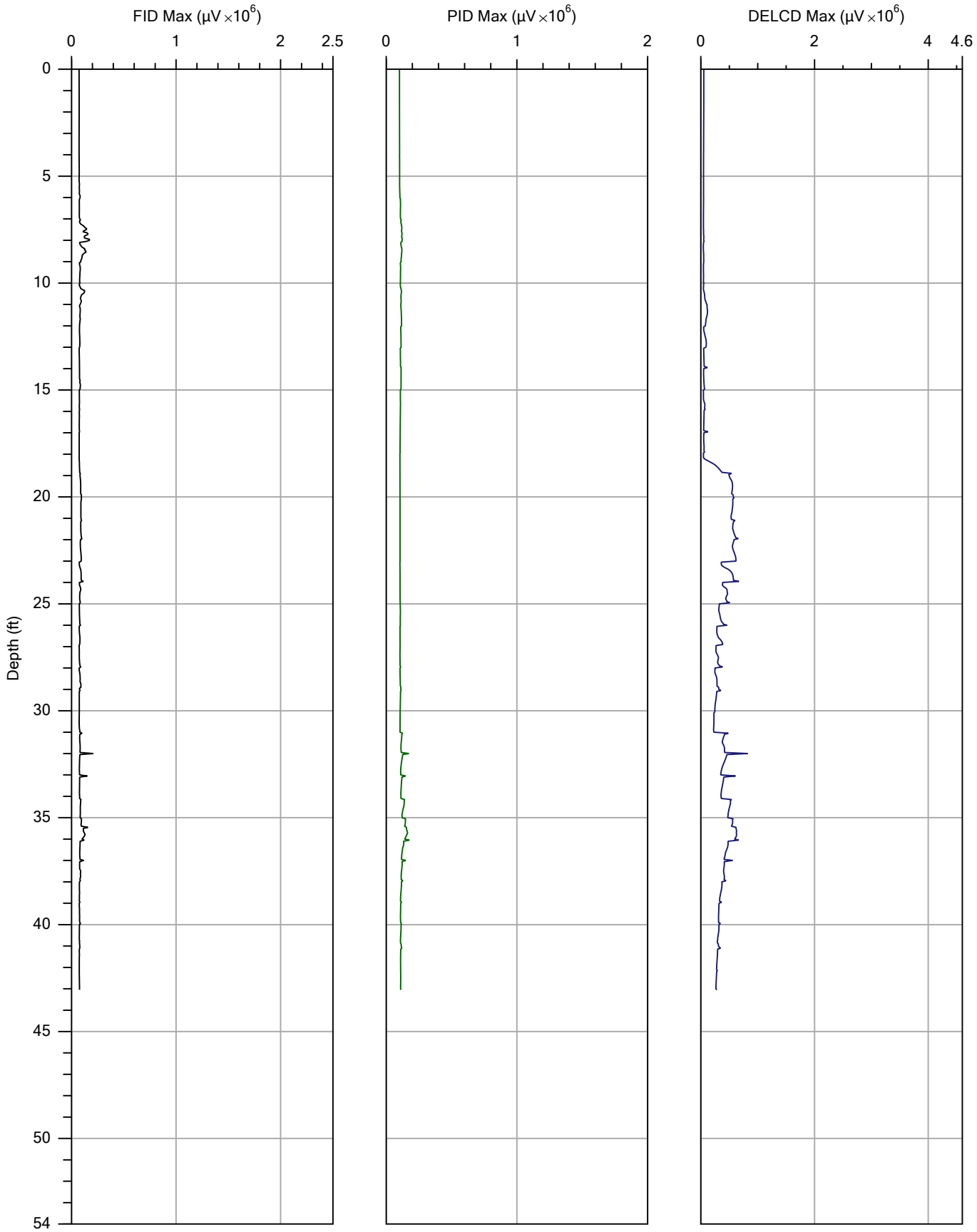
Job Number	04.1913-0010	CPT Number	18CPT03	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	01-Mar-2013 08:23:38	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



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Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 3/1/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

00122660

18CPTMW04SW

AECOM

Client: USACE
Project Number: 60274185
Site Location: LHAAP SITE 18/24
Coordinates: Elevation:
Drilling Method: ~~GEO~~ HSA
Sample Type(s): 5' CORE BARREL Boring Diameter: 8 1/4
Weather: SUNNY, 60'S Logged By: CS Date/Time Started: 3/7/13
Drilling Contractor: ETTL Ground Elevation: Date/Time Finished:

BORING ID: ~~MW~~ ~~18CPT-04SW~~
Sheet: 1 of 4
Monitoring Well Installed: YES
Screened Interval: ~~62.5~~ 53-62.5
Depth of Boring: 65'
Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample Depth (ft)~~ WELL CONSTRUCTION
1				50%	0.0		SILT, BROWN, DAMP		
							14" DIAM HOLE		
2							2' CLAYEY SILT, BROWN W/ DARK GRAY, MOTTLING, MOIST, SOFT, LOW PLASTICITY		
3				50%	0.4	ML			
4							4' - GRAY W/ YELLOWISH MOTTLING, DAMP,		
5									
6							10" DIAM. SURFACE CASING		
7				100%	0.5				
8							4" DIAM. SCH 40 PVC CASING		
9						CL	8.5' SILTY CLAY, YELLOWISH BROWN W/ GRAY MOTTLING, DAMP, STIFF, MEDIUM PLASTICITY		
10									
11					0.1	ML	9.5' SANDY SILT, FINE-GRAINED, YELLOWISH BROWN, DAMP		
12				100%			11.0' SILTY CLAY, GRAY W/ YELLOWISH BROWN MOTTLING, DAMP, MEDIUM STIFF, MEDIUM PLASTICITY		
13					0.0	CL			
14							13.0' - YELLOWISH BROWN W/ GRAY MOTTLING MOIST, STIFF, MEDIUM PLASTICITY		
15					0.0				
							15.0' SANDY SILT, YELLOWISH BROWN, WET	CEMENT/ BENTONITE GROUT	
16									
17				100%		ML	16.0' CLAYEY SILT TO SILTY CLAY, GRAY, STIFF TO VERY STIFF, MEDIUM PLASTICITY		
18					0.2			CENTRALIZER	
19						CL	18.0' SILTY CLAY, YELLOWISH BROWN W/ GRAY MOTTLING, MOIST, VERY STIFF, MEDIUM PLASTICITY		
20									

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by Date:

18CPTMW04SW

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP SITE 18/24
Coordinates:	Elevation:
Drilling Method:	HSA
Sample Type(s):	Boring Diameter: 8 1/4"
Weather:	Logged By: CS
Drilling Contractor:	Ground Elevation:

BORING ID: ~~MW~~ ~~18CPT-04SW~~ 18CPTMW04SW

Sheet: 2 of 4

Monitoring Well Installed:

Screened Interval:

Depth of Boring:

Water Level:

Date/Time Started:

Date/Time Finished:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)	WELL CONSTRUCTION
20										
1						SM	20' SILTY FINE SAND, YELLOWISH BROWN, MOIST			
2				60%	0.0		14" DIAM HOLE			
3							23' FINE SAND, BROWN W/ DARK BROWN LAMINATIONS, MOIST			
4						SP	24' - WET			
5					0.5		10" DIAM. SURFACE CASING			
6				100%						
7							26.5 CLAY, GRAY W/ YELLOWISH BROWN LAMINATIONS, MOIST, VERY STIFF, HIGH PLASTICITY			
8					0.1					
9						CH	4" DIAM. SCH 40 PVC WELL CASING			
30										
11										
12				100%	0.1	ML	31.0' SANDY SILT, GRAYISH BROWN, WET			
13							32.5' CLAY, GRAY W/ YELLOWISH BROWN LAMINATIONS, MOIST, VERY STIFF, HIGH PLASTICITY			
14						CH				
15							TYPE I/II PORTLAND CEMENT & BENTONITE GROUT			
16						SM	35' SILTY FINE SAND, GRAY, WET			
17				100%	0.0		35.5' SILTY CLAY, GRAY W/ YELLOWISH BROWN LAMINATIONS, WET, MEDIUM STIFF, HIGH PLASTICITY			
18						CH	37.5' CLAY, YELLOWISH RED W/ GRAY LAMINATIONS, MOIST, HARD, HIGH PLASTICITY			
19										39'
40										

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date:

00122662

18CPTMW04SW

AECOM

Client: USACE	BORING ID: ~~MW~~ ~~18CPT04SW~~
Project Number: 60274185	
Site Location: LHAAP Site 18/24	Sheet: 8 of 4
Coordinates:	Elevation:
Drilling Method:	Monitoring Well Installed:
Sample Type(s):	Boring Diameter:
Weather:	Logged By: / Date/Time Started:
Drilling Contractor:	Ground Elevation: / Date/Time Finished:
Screened Interval:	Depth of Boring:
Water Level:	

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
40							GEOPROBE SAMPLES 40-63' 4/11/13		
1							40 SILTY CLAY, LIGHT GRAY-YELLOWISH BROWN, WET, SOFT		
2				100%			8" DIAM. BORE HOLE		
3							42.5' MOIST, STIFF ~~SILTY CLAY~~		
4						CL	4" DIAM. SCH. 40 PVC WELL CASING		
5									
6							CENTRALIZER		46.0'
7							3/8" BENTONITE PELLETS		
8				100%			48.0' MEDIUM SAND, MOIST-WET		
9									
50									49.5
11							20/40 SILICA SAND		
12									
13				100%					53.0
14						SP	0.01" SLOTTED SCH. 40 PVC SCREEN		
15									
16									
17									
18				100%					
19									
60									

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date:

18CPTMW04SW

AECOM

Client: USACE	BORING ID: ~~MW~~ ~~18CPT-04SW~~
Project Number: 60274185	
Site Location: LHAAP SITE 18/24	
Coordinates:	Elevation:
Drilling Method:	Sheet: 4 of 4
Sample Type(s):	Boring Diameter:
Monitoring Well Installed:	Screened Interval:
Weather:	Logged By:
Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation:
Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
60									
1						SP	8" DIAM.		
2				100%		~~100%~~	BOREHOLE		
3							CENTRALIZER		62.5
4							HOLE		63.0
5							COLLAPSED		
6							TD = 65'		
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

NOTES: MONITORING WELL INSTALLED 5/6/13 - 5/7/13 W/ 8" MUD ROTARY DRILL BIT

Date	Time	Depth to groundwater while drilling

Checked by

Date:

AECOM

Client: USACE			BORING ID: 18CPT MW 04
Project Number: 60274185			
Site Location: LHAAP SITE 18/24		Elevation:	Sheet: 1 of 2
Coordinates:			Monitoring Well Installed: YES
Drilling Method: HSA			Screened Interval: 19-33.5
Sample Type(s): NA	Boring Diameter: 10 1/4"		Depth of Boring: 34
Weather:	Logged By:	Date/Time Started: 4/1/13	Water Level: NA
Drilling Contractor: ETTL	Ground Elevation:	Date/Time Finished:	

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1							FOR LITHOLOGY DESCRIPTION SEE BORING LOG FOR 18CPT MW-04 SW		
2									
3									
4							10 1/4" BOREHOLE		
5							TYPE I/II PORTLAND CEMENT		
6							W/ BENTONITE GROUT		
7							4" DIAM. SCH. 40 PVC WELL CASING		
8									
9									9.0
10							3/8" BENTONITE PELLETS		
11									
12									12.0
13							20/40 SILICA SAND		
14									14.0
15									
16							0.01" SCH. 40 PVC SLOTTED SCREEN		
17									
18									
19									
20									

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by Date:

AECOM

Client: USACE		BORING ID: 18CPT MW 04
Project Number:		
Site Location:		
Coordinates:	Elevation:	Sheet: 2 of 2
Drilling Method:		Monitoring Well Installed:
Sample Type(s):	Boring Diameter:	Screened Interval:
Weather:	Logged By: / Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation: / Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
20									
1							FOR LITHOLOGY DESCRIPTION SEE BORING LOG FOR 18CPT MW-04SW		
2									
3									
4									
5									
6									
7									
8									
9									
30									
11									
12									
13									
14									33.5
15									34
16									
17									
18									
19									
20									

NOTES:

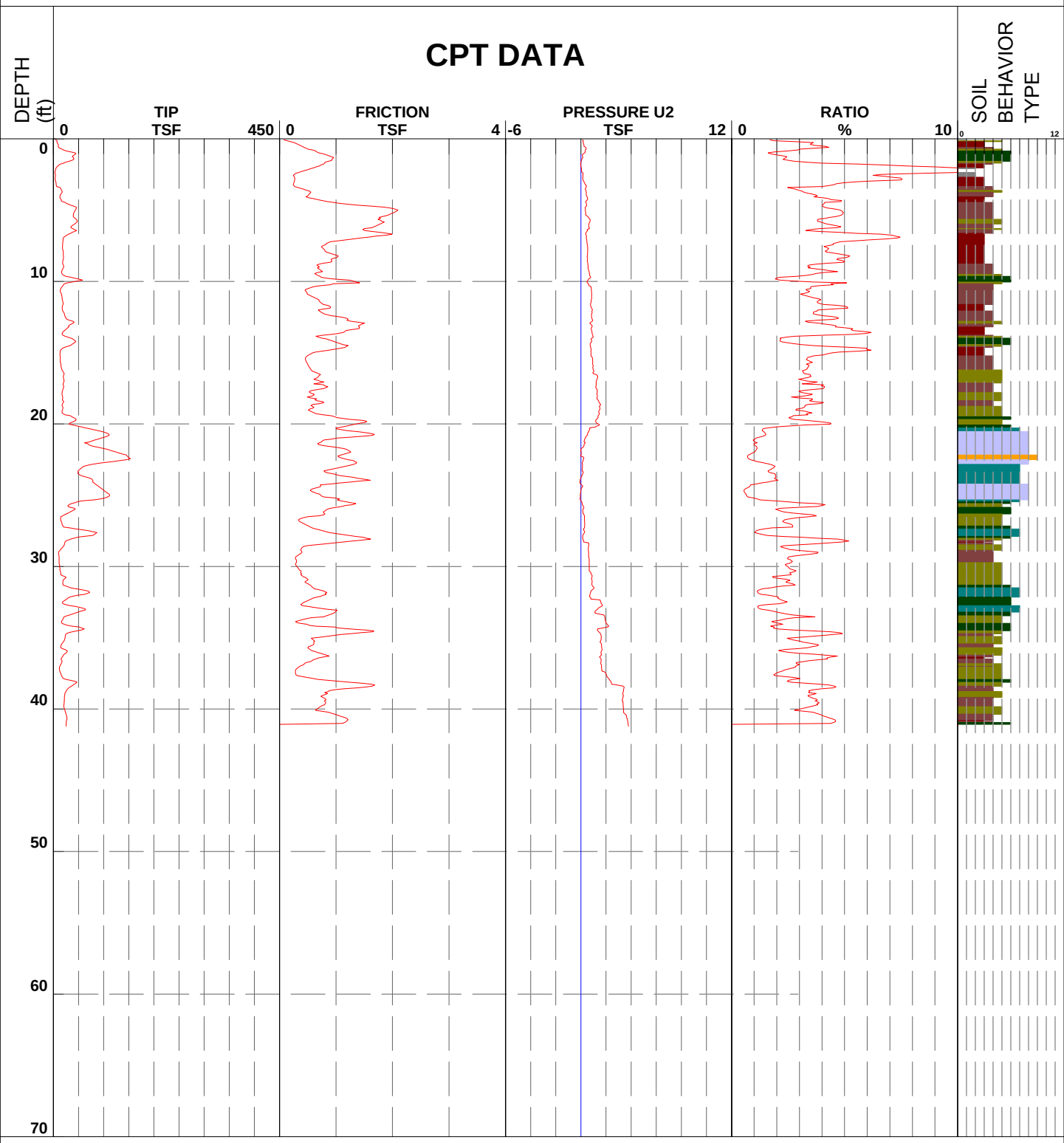
Date	Time	Depth to groundwater while drilling

Checked by Date:

00122666

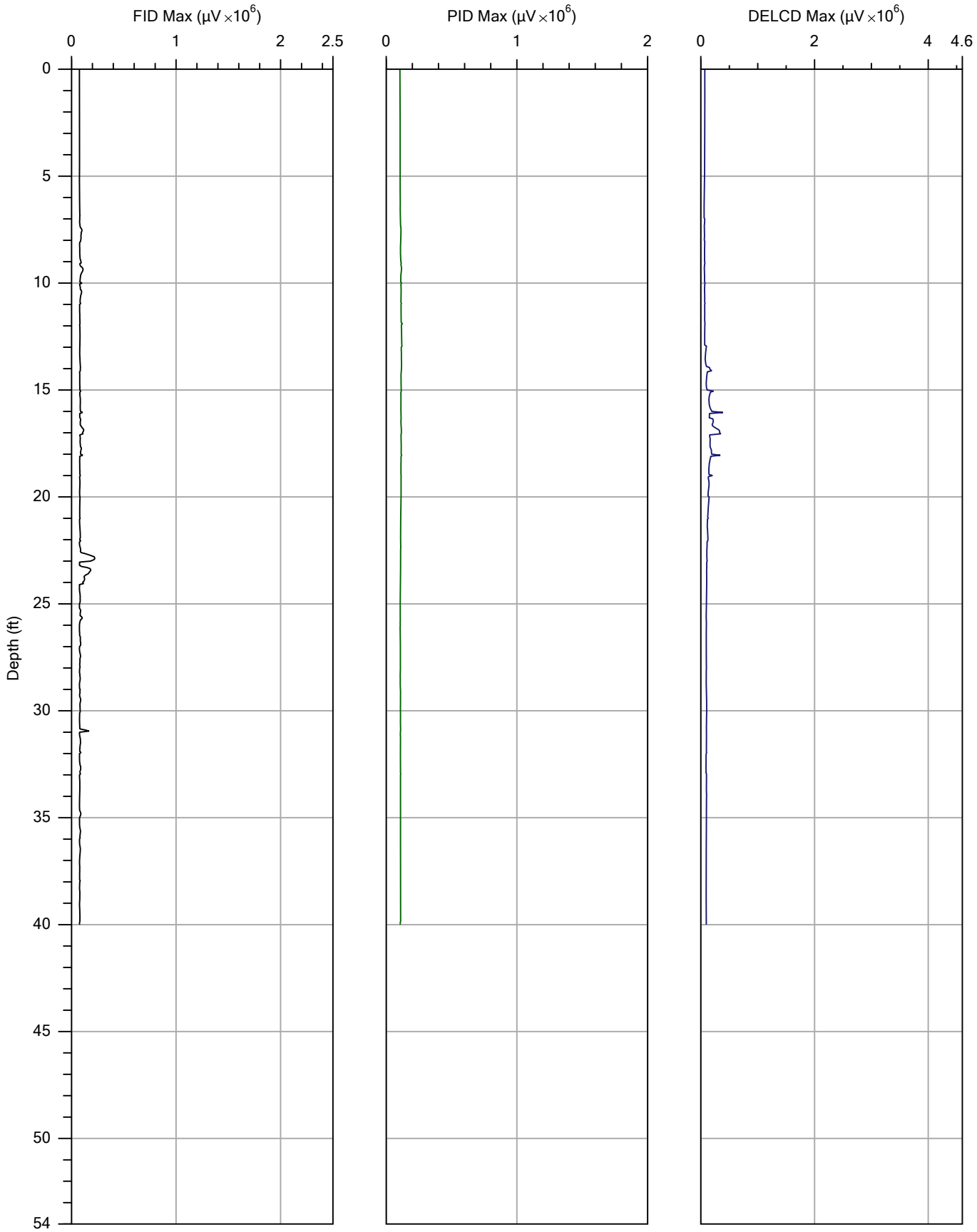
Job Number	04.1913-0010	CPT Number	18CPT04	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	27-Feb-2013 10:08:43	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



		File: 18MIP04.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 2/27/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

AECOM

Client: USACE			BORING ID: 18CPT05
Project Number:			
Site Location: LHAAP 18/24			
Coordinates:	Elevation:		Sheet: 1 of X 2
Drilling Method: Geoprobe 6600			Monitoring Well Installed:
Sample Type(s): Grab	Boring Diameter: 2"		Screened Interval:
Weather: Clear ~ 60 °F	Logged By: [illegible]	Date/Time Started: 4.1.13	Depth of Boring: 40
Drilling Contractor: ETTL	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
							Discontinuous Sampling		
1	15-16	X	@ 1020	90%	20.7	CL	15-19 - Silty Clay, Lt. grey and yellowish brown, moist, stiff.		
2									
3						SM	19-19.5 - Silty fine Sand, yellowish brown, Poorly graded, moist		
4									
5						CL	19.5-20 - Silty Clay, Lt. grey and yellowish brown, moist, stiff.		
6									
7							Discontinuous Sampling		
8	25-26	X	@ 1120	95%	1080	CL	25-27 - Silty Clay, Lt. grey and yellowish brown, stiff, moist		
9									
10						SM	27-27.5 - Silty fine Sand w/ clay, poorly graded, wet, Lt. grey and yellowish brown		
11									
12						CL	27.5-29.5 - Silty clay, Lt. grey and yellowish brown, moist, med. stiff		
13									
14						SM	29.5-30 - Silty fine Sand, yellowish brown, moist, Poorly graded		
15									
16									
17							Discontinuous Sampling		
18									
19									
20							Continued,		

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by _____ Date 4.1.13

AECOM

Client: USACE			BORING ID: 18CPT05
Project Number:			
Site Location: Hamp 18/24			
Coordinates:	Elevation:		Sheet: 2 of 2
Drilling Method: Geoprobe 6600			Monitoring Well Installed:
Sample Type(s): Grab	Boring Diameter: 2"		Screened Interval:
Weather: Cloudy ~60°F	Logged By: [illegible]	Date/Time Started: 4-1-13	Depth of Boring: 40
Drilling Contractor: ETTL	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1				90%		SM	30-30.5 - Silty fine Sand, poorly graded, yellowish brown, wet		
2									
3	31-32	X	@ 1150		839	CL	30.5-31.5 - Silty Clay, Lt. grey and yellowish brown, moist-Damp, stiff		
4									
5						SM	31.5 32 - Silty fine Sand, poorly graded, wet, Lt. grey and yellowish brown		
6									
7									
8						CL	32-34 - Silty Clay, Lt. grey and yellowish brown, moist, stiff		
9									
10									
11						SM	34-35 - Silty fine Sand, poorly graded, lt. grey and orangish brown, moist		
12									
13									
14							Discontinuous Sampling		
15				95%		SM	35-35.5 - Silty fine Sand, poorly graded, yellowish brown, wet		
16						CL	35.5-36.5 - Silty Clay, Lt. grey and yellowish brown, moist, stiff.		
17									
18									
19	39-40	X	@ 1200		196	CH	36.5-40 - Clay, Lt. Grey, moist, stiff		
20									

NOTES:

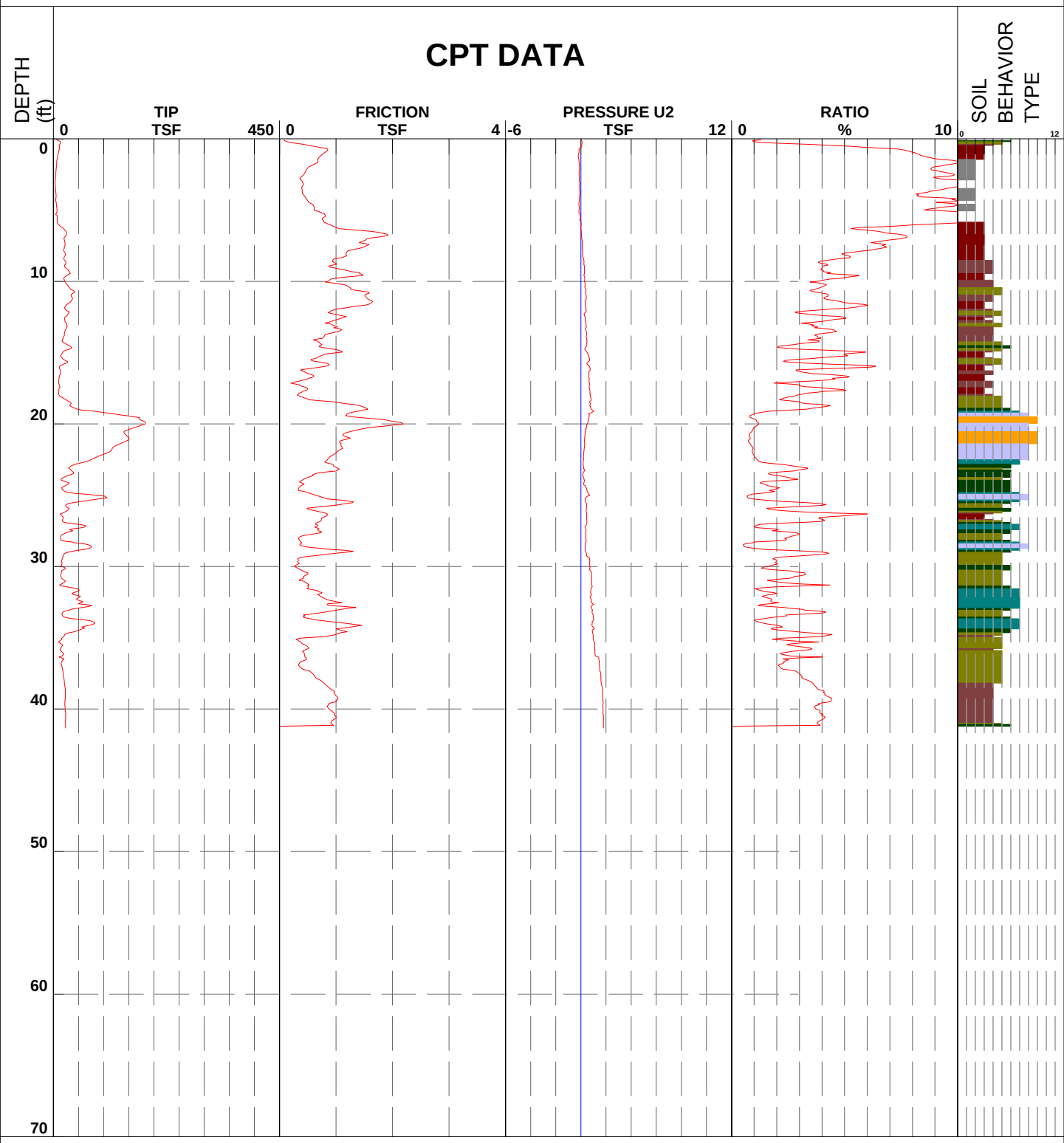
Date	Time	Depth to groundwater while drilling

Checked by _____ Date 4-1-13

00122670

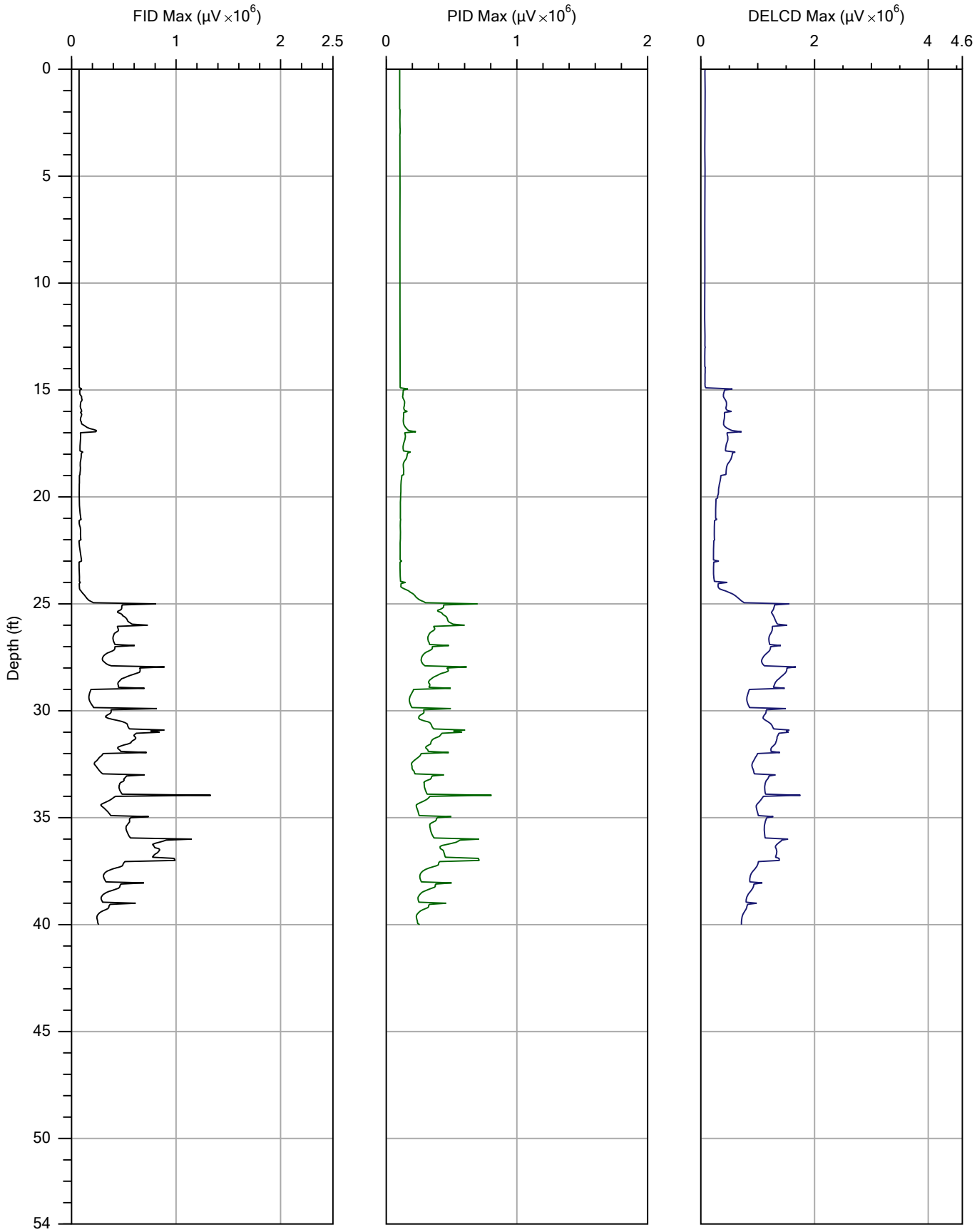
Job Number	04.1913-0010	CPT Number	18CPT05	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	01-Mar-2013 11:09:51	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



		File: 18MIP05.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 3/1/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

00122672

18CPTMW06SW

~~18CPT MW 06SW~~

AECOM

Client: USACE	BORING ID: ~~18CPT MW 06SW~~ 18CPTMW06SW
Project Number: 60274185	
Site Location: LHAAP SITE 18/24	
Coordinates: / Elevation:	Sheet: 1 of 4
Drilling Method: HSA & GEOPROBE	Monitoring Well Installed: YES
Sample Type(s): 5' CORE BARREL / Boring Diameter: 8 1/4" 2"	Screened Interval: 54-63.5
Weather: / Logged By: CS / Date/Time Started: 3/7/13	Depth of Boring: 65'
Drilling Contractor: ETTL / Ground Elevation: / Date/Time Finished:	Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample ~~Depth (ft)~~
1				50%		CL	SILTY CLAY W/ ORGANIC MATERIAL, DARK BROWN 0.5' CLAYEY SILT, DARK GRAY, DAMP		X
2					1.9	ML	14" DIAM. HOLE → 10" DIAM. SCH 40 PVC SURFACE CASING →		X
3				50%					
4							3.5' SILTY CLAY, GRAY W/ REDDISH BROWN MOTTLING, DAMP, STIFF, MEDIUM PLASTICITY		X
5						CL	4.0' CLAY, YELLOWISH RED, DAMP, STIFF, HIGH PLASTICITY		
6				100%	2.1		5.0' SANDY CLAY, YELLOWISH BROWN, DAMP, STIFF, MEDIUM PLASTICITY		X
7							4" DIAM. SCH. 40 PVC WELL CASING →	X	
8						SP	7.5' FINE SAND, BROWN, DAMP		
9	X	18CPT-06 9-10 1450 DUP-02				CL	8.0' CLAY, GRAY W/ YELLOWISH RED MOTTLING, MOIST, STIFF, MEDIUM PLASTICITY		X
10							9.0' SANDY CLAY, YELLOWISH BROWN W/ LIGHT GRAY MOTTLING, W/ BLACK INCLUSIONS, DAMP, MEDIUM PLASTICITY		X
11				100%	2.0				
12							11.0' SILTY CLAY, YELLOWISH BROWN AND GRAY, DAMP, MEDIUM STIFF, LOW-MEDIUM PLASTICITY		X
13									
14							TYPE I/II PORTLAND CEMENT W/ BENTONITE GROUT →	X	
15						ML	14.0' CLAYEY SILT, ~~DAMP~~ YELLOWISH BROWN, DAMP, NONE TO LOW PLASTICITY		X
16									X
17				100%	1.4	ML/SM	16.0' SANDY SILT, GRAY W/ YELLOWISH BROWN LAMINATIONS, DAMP		
18								X	
19		18CPT-06 19-20 0815				SM	18.5' SILTY FINE SAND, YELLOWISH BROWN, DAMP		X
20	X				2.7				X

3/7/13

3/8/13

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by Date:

18CPTMW06SW

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	
Coordinates:	Elevation:
Drilling Method:	
Sample Type(s):	Boring Diameter:
Weather:	Logged By: / Date/Time Started:
Drilling Contractor:	Ground Elevation: / Date/Time Finished:

BORING ID: ~~18CPT-06~~

Sheet: 2 of 4

Monitoring Well Installed:

Screened Interval:

Depth of Boring:

Water Level:

20

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample Depth (ft.)~~
1						SM	10" DIAM. SCH. 40 PVC SURFACE CASING IN 14" DIAM. BOREHOLE		
2				100%			22.0' CLAYEY SILT – CLAYEY FINE SAND, YELLOWISH BROWN, ~~SOFT~~ MOIST, SOFT, LOW PLASTICITY		
3					3.7	ML/SC			
4							23.5' SILTY CLAY, YELLOWISH BROWN W/ GRAY MOTTLING, MOIST, MEDIUM STIFF, HIGH PLASTICITY		
5						CL			
6					2.3				
7				50%		SM	26.0' ~~FINE~~ SILTY FINE SAND, GRAY, WET		
8					2.4		TYPE I/II PORTLAND CEMENT W/ BENTONITE GROUT		
9						ML	28.0' SANDY SILT, GRAY W/ YELLOWISH BROWN MOTTLING, MOIST		
30						SP	29.0' FINE SAND, BROWN, WET		
11							4" DIAM. SCH. 40 PVC WELL CASING		
12				60%	2.4				
13						SC	32.0' CLAYEY FINE SAND, YELLOWISH BROWN to BROWN, WET, NONE TO LOW PLASTICITY		
14									
15					2.3	SM	34.0' SILTY FINE SAND, YELLOWISH BROWN, WET		
16									
17				100%					
18	X	18CPT-06 38-39' 0%			2.8	CL	37.0' SILTY CLAY & FINE SANDY CLAY, YELLOWISH RED & GRAY, WET, STIFF, MEDIUM PLASTICITY		
19									
40									

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date:

00122674

18CPTMW06SW

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	
Coordinates:	Elevation:
Drilling Method:	
Sample Type(s):	Boring Diameter:
Weather:	Logged By: / Date/Time Started:
Drilling Contractor:	Ground Elevation: / Date/Time Finished:

BORING ID: ~~18CPT-06~~

Sheet: 3 of 4

Monitoring Well Installed:

Screened Interval:

Depth of Boring:

Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample Depth (Ft.)~~
40									
1					1.7		41.0' CLAY, DARK GRAY, MOIST, VERY STIFF, HIGH PLASTICITY		
2				100%		CH	10" DIAM. SCH. 40 PVC SURFACE CASING IN 14" DIAM. BORE HOLE		42'
3	X	18CPT-06 43-44' 1005			1.1				
4									
5							GEOPROBE 45-65' 4/15/13		
6						CH	SILTY CLAY, LIGHT GRAY W/ YELLOWISH BROWN MOTTLES, DAMP, MEDIUM STIFF, MEDIUM TO HIGH PLASTICITY		
7				100%					
8							3/8" BENTONITE PELLETS		
9							48.8' SILTY FINE SAND W/ OCCASIONAL THIN CLAY LAYERS 1/4", LIGHT GRAY, MOIST		
50						SM			
11							50.0' FINE SAND, GRAY W/ OCCASIONAL YELLOWISH BROWN STAINING, WET		
12				100%		SP			
13							20/40 SILICA SAND		
14						SP			
15						SM	54.2' SILTY FINE SAND, DARK GRAY, WET		54
16							55.0' FINE SAND, LIGHT GRAY, WET		
17				100%		SP	56.5' GRAYISH BROWN		
18							0.01" SCH. 40 PVC SLOTTED SCREEN		
19							58.0' BROWN		
60									

NOTES: SURFACE CASING AT 42' AFTER REAMING HOLE W/ 14" MUD ROTARY DRILL BIT TO 41' ON 3/14/13

Date	Time	Depth to groundwater while drilling

Checked by

Date:

18CPTMW06SW

AECOM

Client: USACE	BORING ID: 18CPT-06
Project Number: 60274185	
Site Location:	
Coordinates: Elevation:	Sheet: 4 of 4
Drilling Method:	Monitoring Well Installed:
Sample Type(s): Boring Diameter:	Screened Interval:
Weather: Logged By: Date/Time Started:	Depth of Boring:
Drilling Contractor: Ground Elevation: Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample Depth (ft.)~~
60									
1									
2				100%		SP			
3							63.5' FINE-MEDIUM SAND, LIGHT GRAY TO YELLOWISH BROWN W/ DEPTH, WET		
4									63.5
5							COLLAPSED BOREHOLE		64
6							TD = 65'		
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

NOTES:

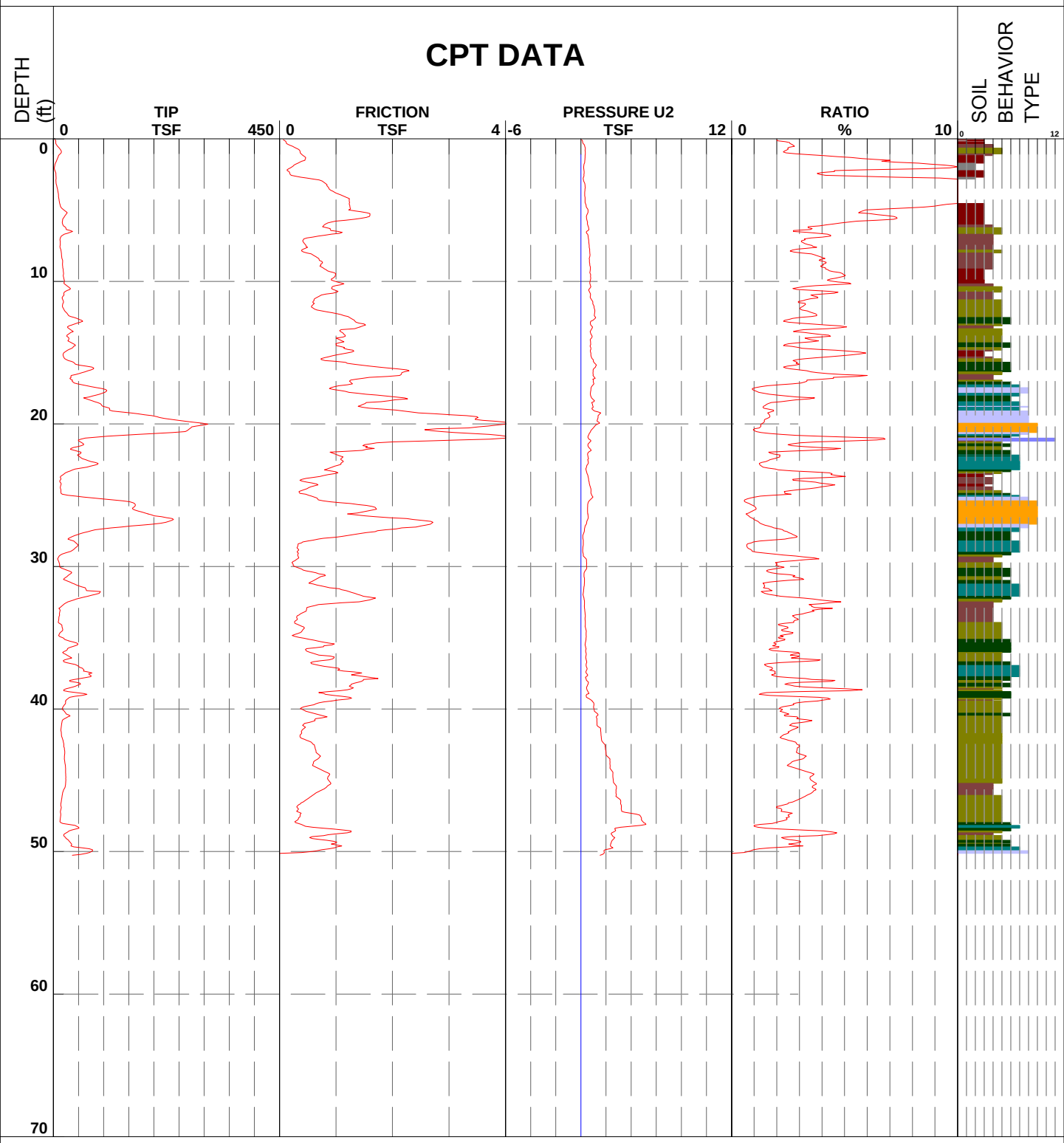
Date	Time	Depth to groundwater while drilling

Checked by Date:

00122676

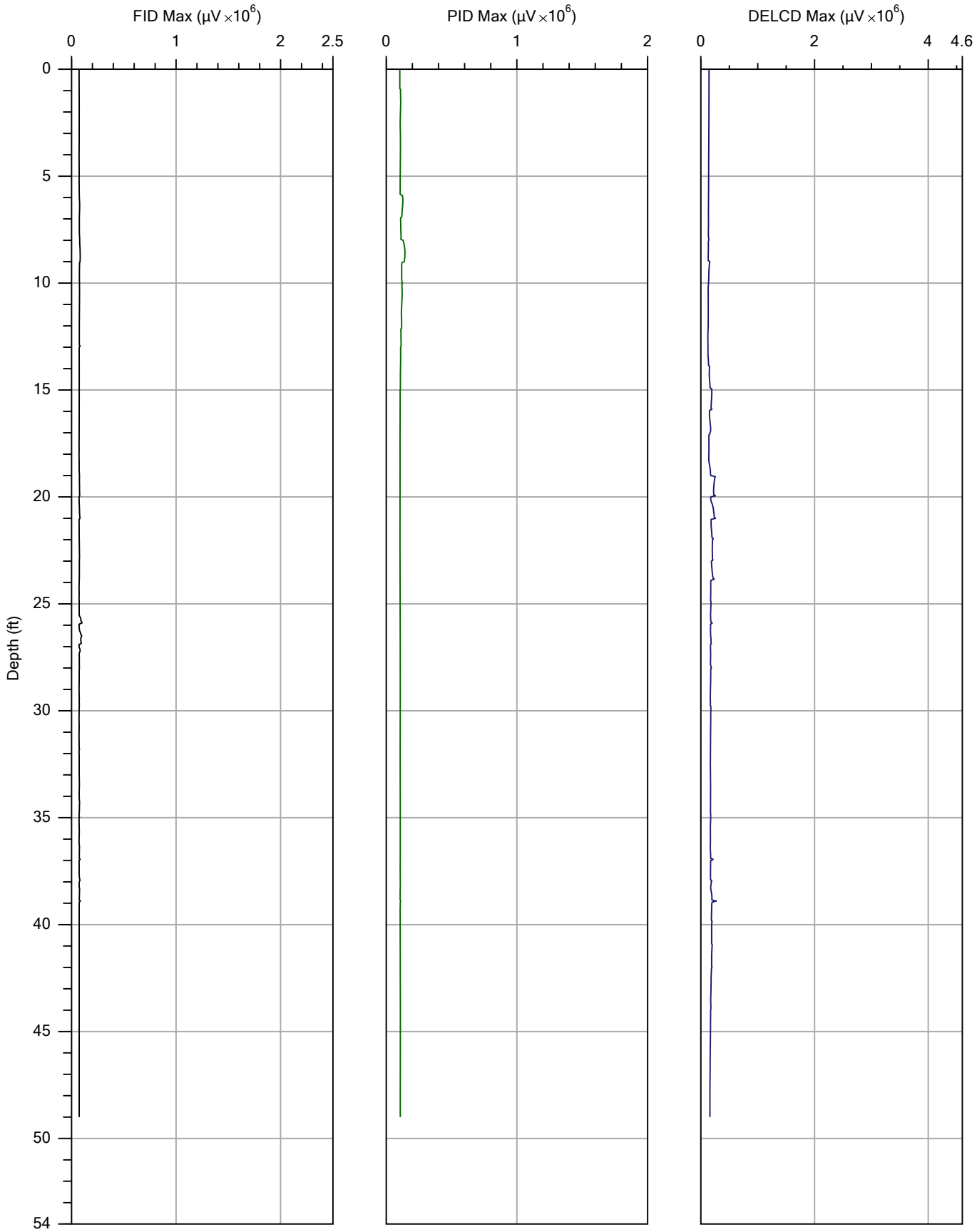
Job Number	04-1913-0010	CPT Number	18cpt06	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	01-Mar-2013 16:26:00	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



		File: 18MIP06.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 3/1/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

00122678

18CPTMW 07SW

AECOM

Client: USACE	BORING ID: [illegible]
Project Number: 60274185	
Site Location: LHAAP SITE 18/24	
Coordinates:	Elevation:
Drilling Method: HSA	Sheet: 1 of 4
Sample Type(s): 5' CORE BARREL	Boring Diameter: 8 1/4", 2"
Monitoring Well Installed: YES	Screened Interval: 54.4-63.9
Weather: SUNNY + COLD 30S	Logged By: GH + JG
Date/Time Started: 3/12/13	Depth of Boring: 65
Drilling Contractor: ETTL	Ground Elevation:
Date/Time Finished:	Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample~~ WELL CONSTRUCTION
1				50%		SM	CLAYEY SILT, BROWN, DAMP, SOFT, LOW PLASTICITY		X
2							14" DIAM. HOLE		
3				50%		CL	2.0' SILTY CLAY, LIGHT BROWN, DAMP, MEDIUM STIFF, MEDIUM PLASTIC, MOTTLED REDDISH BROWN		X
4							10" DIAM. SCH 40 PVC SURFACE CASING		
5									X
6				100%		SM	5.5' SILTY FINE SAND, YELLOWISH BROWN, DAMP		
7	X	18CPT-07 7-8' 0950			0.0	CL	6.2' SILTY CLAY, LIGHT GRAY + YELLOWISH BROWN, DAMP, VERY STIFF		X
8						ML	7.0' CLAYEY SILT, LIGHT GRAY, DAMP		
9							7.6' SILTY CLAY, MOTTLED BROWN + LIGHT GRAY, DAMP, VERY STIFF - HARD, MEDIUM ~~STIFF~~ PLASTIC		X
10						CL			X
11				100%			4" DIAM. SCH 40 PVC WELL CASING		
12									X
13							13.0'		
14						SM	SILTY FINE SAND, YELLOWISH BROWN, DAMP		X
15							14.0' FINE SAND, YELLOWISH BROWN, DAMP		X
16				90%		SP			
17	X	18CPT-07 17-18' 1020		100%	0.0		TYPE I/II PORTLAND CEMENT + BENTONITE GROUT		X
18									X
19							19.0' SILTY FINE SAND W/TRACE CLAY, YELLOWISH BROWN + LIGHT GRAY, DAMP		X
20				60%		SM			X

CENTRALIZER

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date:

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP SITE 18/24
Coordinates:	
Elevation:	
Drilling Method:	HSA
Sample Type(s):	
Boring Diameter:	
Weather:	
Logged By:	
Date/Time Started:	
Drilling Contractor:	
Ground Elevation:	
Date/Time Finished:	

BORING ID: 18CPT MW 07SW

Sheet: 2 of 4

Monitoring Well Installed:

Screened Interval:

Depth of Boring:

Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample~~ WELL Depth (Ft)	CONSTRUCTION
20										
1							20.5 FINE SAND, YELLOWISH BROWN, DAMP		X	
2				60%		SP	14" DIAM. HOLE			
3							10" DIAM. SCH40 PVC SURFACE CASING			X
4							24.0 CLAYEY SILT, LIGHT GRAY & YELLOWISH BROWN, DAMP TO WET, SOFT			
5						ML			X	
6				80%		SP	26.0 FINE SAND, LIGHT GRAY, WET			
7						ML	26.5 CLAYEY SILT, LIGHT GRAY, DAMP			
8							4" DIAM. SCH40 PVC WELL CASING			X
9	X	18CPT-07 29-30 MS MSD 1100			1.4		29.0' SILTY FINE SAND W/ TRACE OF CLAY, YELLOWISH BROWN, WET			
30				80%		SM			X	
11										
12							31.5' SILTY CLAY, MOTTLED YELLOWISH BROWN, AND LIGHT GRAY, MOIST, SOFT-STIFF, MEDIUM PLASTICITY			X
13						CL				
14							TYPE I/II PORTLAND CEMENT W/ BENTONITE GROUT		X	
15							34.5 SILTY CLAY TO CLAYEY SILT W/ OCCASIONAL 1" LAYERS OF SILTY SAND, YELLOWISH BROWN TO LIGHT GRAY, WET, STIFF, LOW-MEDIUM PLASTICITY			
16				80%		CL/ML				X
17	X	18CPT-07 37-38 DUP 1150			0.0				X	
18										
19										
40						CH	39.5 SILTY CLAY, BROWNISH GRAY, VERY STIFF DAMP, HIGH PLASTICITY			X

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date:

AECOM

Client: USACE		18CPT MW 07SW
Project Number: 60274185		BORING ID:
Site Location: LHAAP SITE 18/24		
Coordinates:	Elevation:	Sheet: 3 of 4
Drilling Method:		Monitoring Well Installed:
Sample Type(s):	Boring Diameter:	Screened Interval:
Weather:	Logged By: / Date/Time Started: 3/12/13	Depth of Boring:
Drilling Contractor:	Ground Elevation: / Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID
40							39.5' YELLOWISH BROWN STREAKS	
1							40.5' BROWNISH GRAY W/ SOME YELLOWISH BROWN MOTTLING	
2				100%		CH	10" DIAM. SCH. 40 PVC SURFACE CASING	
3							43.0' LIGHT GRAY (BLUISH?) W/ SOME YELLOWISH BROWN MOTTLING	
4								
5							GEOPROBE 45'-65' 4/15/13	
6						CH	46.0' SILTY CLAY, MOTTLED LIGHT BROWN & GRAY, DAMP, MEDIUM STIFF, HIGH PLASTICITY	
7				90%			47.0' GRAY W/ OCCASIONAL YELLOWISH BROWN MOTTLING, STIFF	
8							3/8" BENTONITE PELLETS	
9							49.3'	
50						SM	SILTY FINE SAND, GRAY, MOIST	
11						SP	50.0' FINE-MEDIUM SAND, GRAY, WET	
12				85%			51.0' BROWN	
13							4" DIAM. SCH. 40 PVC WELL CASING	
14						SM	53.0' SILTY FINE SAND, GRAY, WET	
15							20/40 SILICA SAND	
16							55.0' FINE-MEDIUM SAND, BROWNISH GRAY, WET	
17				100%		SP	0.01" SCH. 40 PVC SLOTTED SCREEN	
18								
19								
60								

Lab Sample ID / Depth (ft) / Well Construction: 42' 52 54.

CONTINUED

NOTES: SURFACE CASING AT 42' AFTER REAMING HOLE W/ 14" MUD ROTARY DRILL BIT TO 41' ON 3/13/13

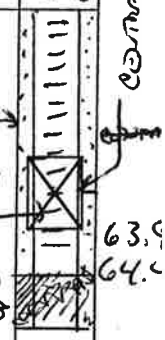
Date	Time	Depth to groundwater while drilling

Checked by _____ Date: _____

AECOM

Client: USACE			BORING ID: 18CPT MW 07SW
Project Number: 60274185			
Site Location:			
Coordinates:	Elevation:		Sheet: 4 of 4
Drilling Method:			Monitoring Well Installed:
Sample Type(s):	Boring Diameter:		Screened Interval:
Weather:	Logged By:	Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Test Sample Depth (ft)
60									
1							61.0' 2" DARK GRAY LAYER 20/40 SILICA SAND		
2				100%		SP			
3							0.01" SCH 40 PVC SLOTTED SCREEN		
4							63.7" 1" YELLOWISH BROWN LAYER		
5							HOLE COLLAPSED		
6							TD. 65'		
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									



NOTES: BOREHOLE DRILLED OUT W/ 8" MUD ROTARY DRILL BIT TO 65' ON 4/18/13. MONITORING WELL INSTALLED ON 4/19/13.

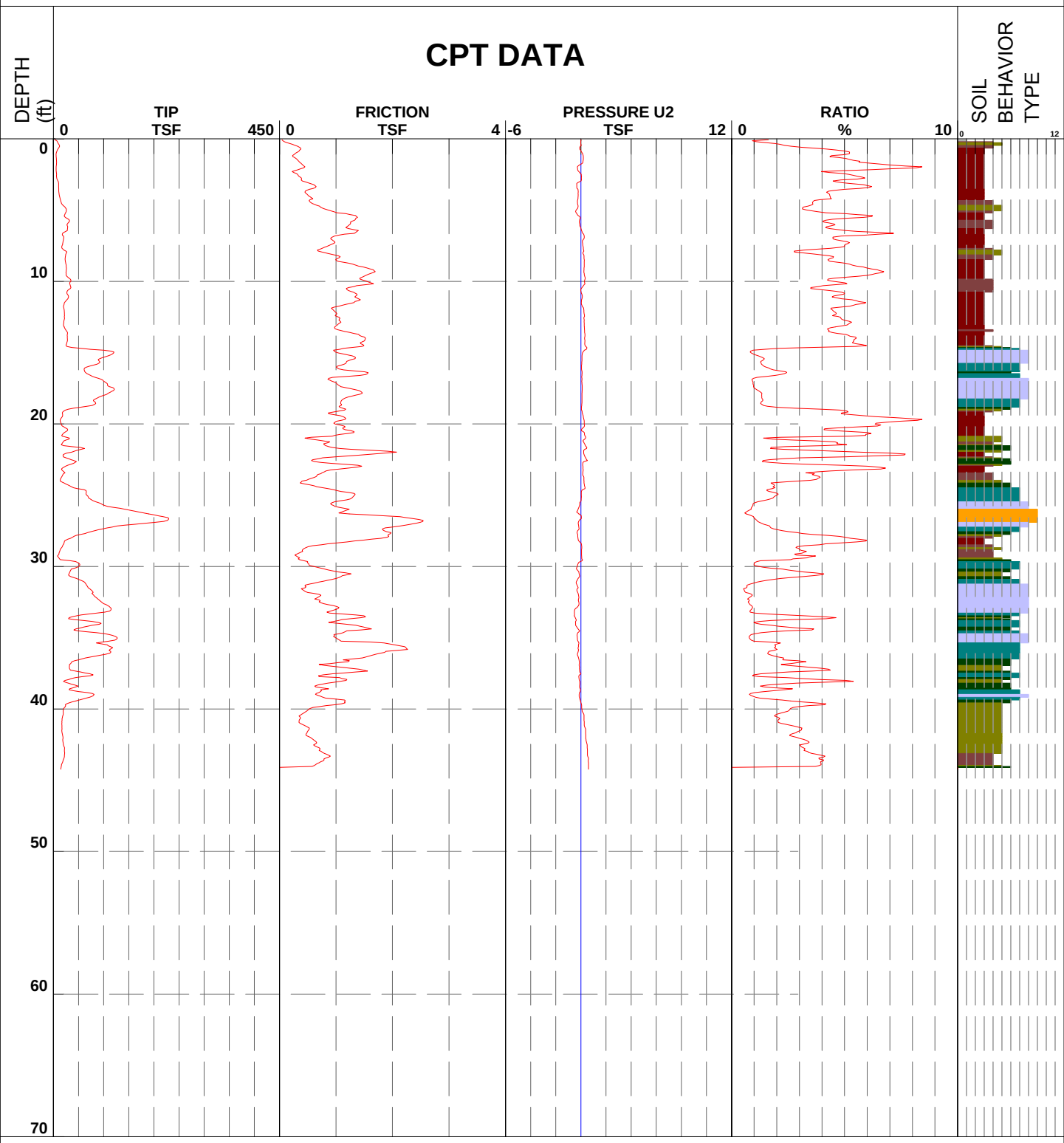
Date	Time	Depth to groundwater while drilling

Checked by Date:

00122682

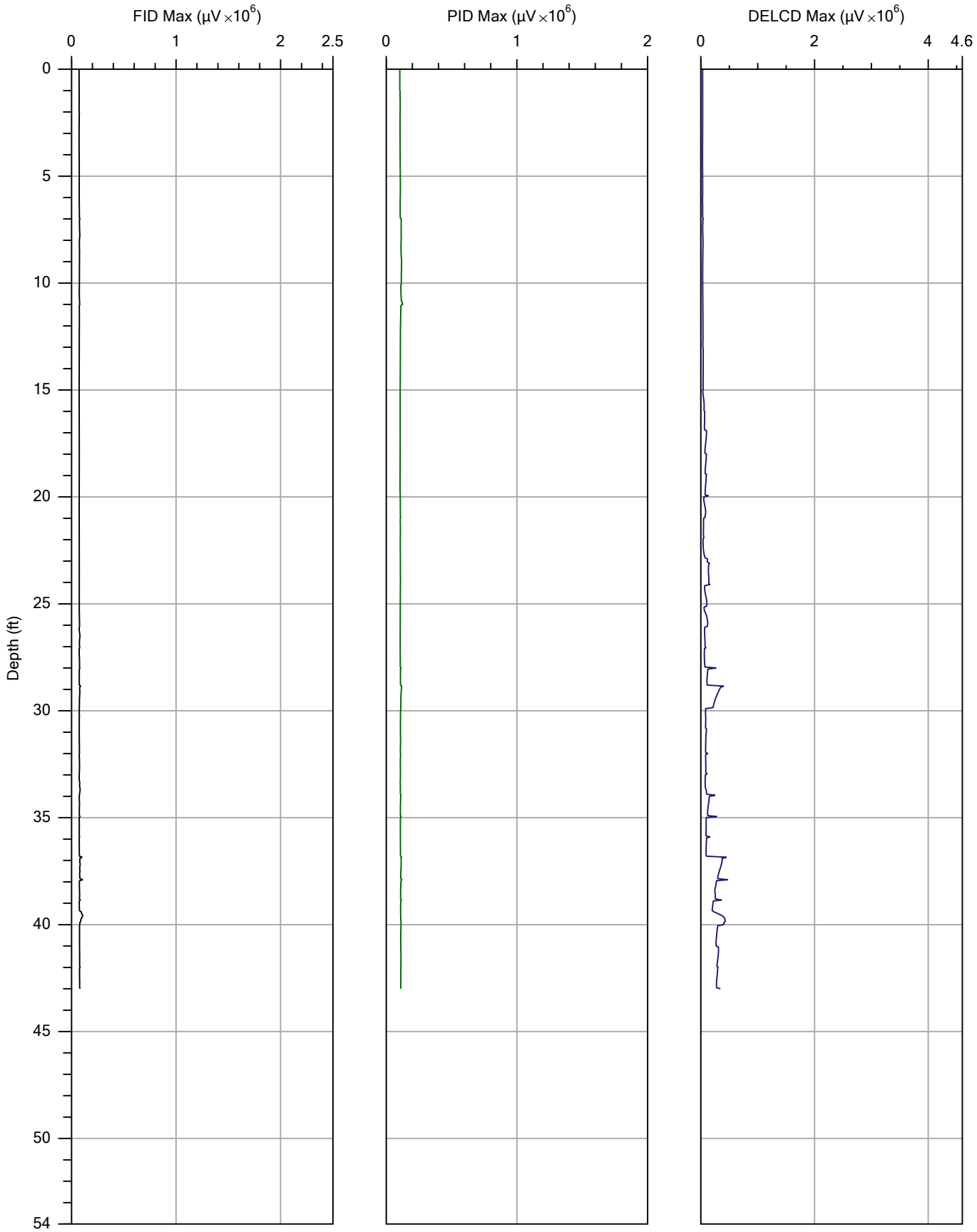
Job Number	04-1913-0010	CPT Number	18CPT07	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	28-Feb-2013 16:33:03	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



			File: 18MIP07.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca		Date: 2/28/2013
Project ID: 04.1913-0010	Client: Karnack, TX		Location:

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP SITE 18/24
Coordinates:	Elevation:
Drilling Method:	MUD ROTARY
Sample Type(s):	Boring Diameter: 14" 8"
Weather:	Logged By: / Date/Time Started: 5/[illegible]/13
Drilling Contractor:	Ground Elevation: / Date/Time Finished: [illegible]

BORING ID: 18CPT MW 08DW

Sheet: 1 of 1

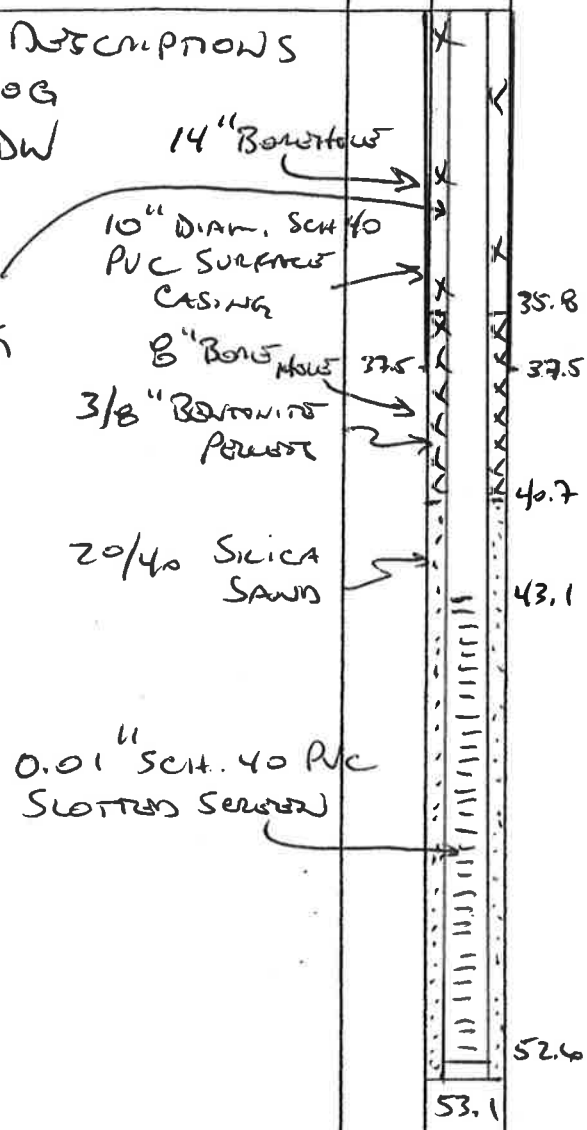
Monitoring Well Installed: YES

Screened Interval: 43.1-52.6

Depth of Boring: 53.1

Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
							FOR LITHOLOGY DESCRIPTIONS SEE BORING LOG 18CPT MW-08DW		



NOTES: CENTRALIZERS AT MID POINTS 8.5, 35.5, 52.1'

Date	Time	Depth to groundwater while drilling

Checked by

Date:

18CPTMW08DW

AECOM

Client: USACE	~~18CPT MW 08DW~~
Project Number: 60274185	BORING ID: ~~18CPT-08~~
Site Location: LHAAP SITE 18/24	
Coordinates:	Elevation:
Sheet: 1 of 5	
Drilling Method: HSA	Monitoring Well Installed: Yes
Sample Type(s): 5' SPLIT CORE BARREL	Boring Diameter: 8 1/4"
Screened Interval: 89.8 – 99.0	
Weather: SUNNY, 50S	Logged By: CS / GH
Date/Time Started: 2/28/13	Depth of Boring: 99.8
Drilling Contractor: ETTL	Ground Elevation:
Date/Time Finished: 3/21/13	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	~~Blows per 6"~~	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample Depth (Ft.)~~ WELL CONSTRUCTION
1				25%		SW / CL	GRAVELLY SAND, YELLOWISH BROWN, DAMP; 0.5 SILTY CLAY W/ SAND, YELLOWISH RED, DAMP		
2									
3				33%		SM	2' SILTY ~~SAND~~ FINE SAND, MOTTLED YELLOWISH RED AND GRAY, DAMP		
4									
5									
6		18CPT-08							
16:30 7	X	6-7		100%	6.8		6' SANDY SILT, MOTTLED BROWNISH YELLOW AND GRAY, DAMP		
8									
9									
10						ML	10" DIAM. SURFACE CASING IN 14" BOREHOLE		
11				100%					
12							PORTLAND TYPE I/II CEMENT W/ BENTONITE GROUT		
1635 13	X	GEOTECH 12.5-13							
14									
15									
16			DRILLED + SAMPLED 2/28/13	100%			@16' WET; 4" DIAM. SCH 40 PVC CASING		
17									
18							18.5' GRAY		
19						SM	19' SILTY FINE SAND, YELLOWISH BROWN W/ GRAY MOTTLING, WET		
20									

NOTES: 2/28/13 CALIBRATED PID @ 1509
100 ppm Isobutylene = 104 ppm

Date	Time	Depth to groundwater while drilling

Checked by _____ Date: _____

00122686

18CPTMW08DW

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	
Coordinates:	Elevation:
Drilling Method:	HSA
Sample Type(s):	5' SPLIT CORE BARREL Boring Diameter: 8 1/4"
Weather:	Logged By: CS Date/Time Started:
Drilling Contractor:	Ground Elevation: Date/Time Finished:

BORING ID: 18CPT-08

Sheet: 2 of 5

Monitoring Well Installed:

Screened Interval:

Depth of Boring:

Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
20									
1									
2		GEOTECH 22-23'	DRILLED & SAMPLED 3/1/13	75%		SM			
0835 3	X						10" DIAM. SCH 40 PVC SURFACE CASING →		
4									
5							CENTRALIZER → 25' FINE SAND, GRAY, WET	X	
6				50%		SP	4" DIAM. SCH 40 WELL CASING →		
7									
8									
9							29' SILTY CLAY, GRAY, MOIST, STIFF TO VERY STIFF, HIGH PLASTICITY		
10						CH			
11				100%			PORTLAND TYPE I/II CEMENT W/ BENTONITE GROUT →		
12 0850	X	GEOTECH 32-32.5'							
13						ML	33' CLAYEY SILT, GRAY W/ ORANGE LAMINATIONS, WET, LOW PLASTICITY		
14						CL	34' SILTY CLAY, YELLOWISH RED, WET, LOW PLASTICITY		
15						SM	35.5' SILTY FINE SAND, YELLOWISH ORANGE, WET		
16				100%		CL	36' → CLAY, MOTTLED YELLOWISH BROWN & GRAY, MOIST, STIFF, HIGH PLASTICITY		
17 0910 18	X	18CPT-08 37.5-38'			0.0				38'
19						ML	38.5 CLAYEY SILT, ORANGE & GRAY, WET LOW PLASTICITY		
20							8" BORE HOLE →		

NOTES: 3/1/13 CALIBRATED PID @ 0800
100ppm Isobutylene = 100.9ppm
3/1/13 Bore Hole Reamed w/14" Drill Bit To 37'
10" Casing Pushed To 38' BGS

Date	Time	Depth to groundwater while drilling

Checked by Date

18CPTMW08DW

AECOM		
Client: USACE		BORING ID: 18CPT-08
Project Number: 60274185		
Site Location: LHAAP SITE 18/24		
Coordinates:	Elevation:	Sheet: 3 of 5
Drilling Method: GEOPROBE		Monitoring Well Installed:
Sample Type(s): 5' CORE BARREL	Boring Diameter: 2"	Screened Interval:
Weather: SUNNY	Logged By: GH/CS / Date/Time Started: 3/12/13	Depth of Boring:
Drilling Contractor: CTTC	Ground Elevation: / Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample Depth (ft)~~ Well Construction
40							40-45' NOT SAMPLED SEE CPT LOG. 8" DIAM. BORE HOLE		
5							GEOPROBES FROM 45' TO 65' 3/12/13 - 3/13/13		
						CL	45' SILTY CLAY, MOTTLED REDDISH BROWN, LIGHT GRAY		
6						SM	45.5 SILTY FINE SAND, YELLOWISH BROWN, WET		
7				100%			46' FINE TO MEDIUM SAND, LIGHT BROWN, WET		
8									
9						SP	4" DIAM. SCH 40 PVC WELL CASING		
10									
11									
12							PORTLAND TYPE I/II CEMENT W/ BENTONITE GROUT		
13				100%					
14							54' 2" SILTY CLAY, LIGHT GRAY, MOIST, SOFT, MEDIUM - HIGH PLASTICITY		CEMENT GROUT
15									
16							54.2' FINE TO MEDIUM SAND, YELLOWISH BROWN WET		
17						SP			
18				100%			58' MEDIUM SAND, LIGHT BROWN, WET		
19									
20									

NOTES: BEGAN EXTENDING BORE HOLE W/ MUD ROTARY ON 3/20/13 USING 5" DIAM. DRILL BIT, USED 8" DRILL BIT ON 3/21/13

Checked by: Date:

Date	Time	Depth to groundwater while drilling

00122688

18CPTMW08DW

AECOM

Client: USACE		BORING ID: 18CPT-08
Project Number: 60274185		
Site Location: LHARP SITE 18/24		
Coordinates:	Elevation:	Sheet: 4 of 5
Drilling Method:		Monitoring Well Installed:
Sample Type(s):	Boring Diameter:	Screened Interval:
Weather:	Logged By: / Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation: / Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample Depth (Ft.)~~ WELL COMPLETION
60									
1							GRAB SAMPLES TAKEN FROM MUD ROTARY CUTTINGS ~ EVERY 5 FEET		
2				100%					
3							8" DIAMETER HOLE		
3/13/13 0720 4	X	HYDROPUNCH 18CPT-08, 64'							
5						SP	FINE-MEDIUM SAND, LIGHT BROWN		
6									
7							4" DIA. SCH 40 PVC CASING		
8									
9									
70						SP	FINE-MEDIUM SAND, LIGHT BROWN		
11									
12							PORTLAND TYPE I/II CEMENT W/ BENTONITE GROUT		
13									
14									
15						SP	FINE-MEDIUM SAND, LIGHT BROWN		
16									
17									
18									
19									
20									

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by Date

00122689

18CPTMW08DW

AECOM

Client: USACE			BORING ID: 18CPT-08
Project Number: 60274185			
Site Location: LHAAP SITE 18/24			
Coordinates:	Elevation:		Sheet: 5 of 5
Drilling Method:			Monitoring Well Installed: YES
Sample Type(s):	Boring Diameter:		Screened Interval:
Weather:	Logged By:	Date/Time Started:	Depth of Boring: 99.8'
Drilling Contractor: ETR	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
80									
1						SP	FINE - MEDIUM SAND, LIGHT BROWN		
2									
3							CENTRALIZER		
4									
5						SP	FINE SAND, BROWN		84.[illegible]
6							BENTONITE PELLETS		
7									
8									87.[illegible]
9							#20/40 SILICA SAND FILTER		
90									89.[illegible]
11						SP	FINE SAND, LIGHT GRAY		
12									
13							0.01" SLOT 40 PVC SLOTTED SCREEN		
14									
15						SP	FINE SAND, LIGHT GRAY		
16									
17									
18							CENTRALIZER		
19									99.3
20						SP	FINE SAND, LIGHT GRAY		99.[illegible]

NOTES:

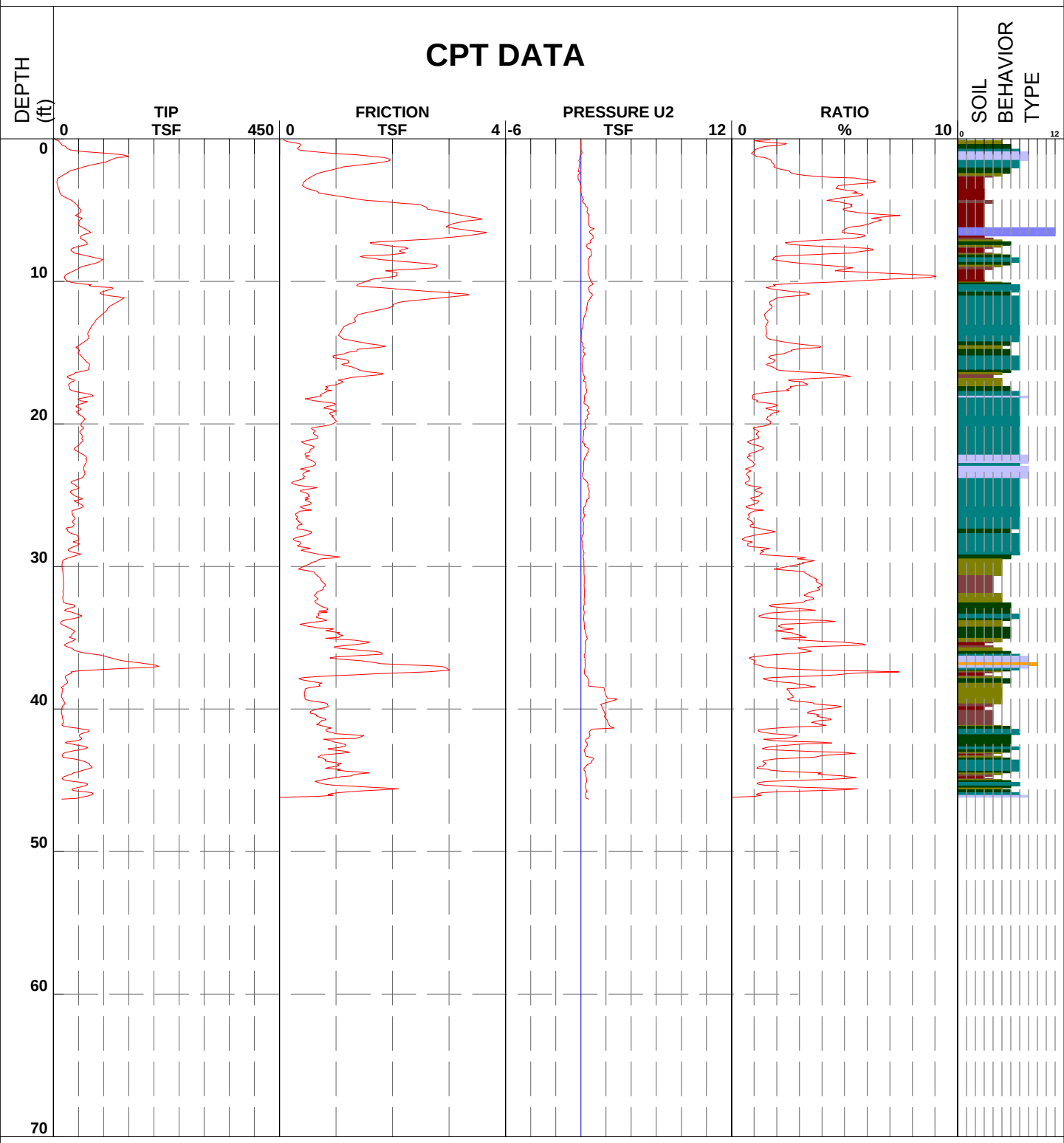
Date	Time	Depth to groundwater while drilling

Checked by Date

00122690

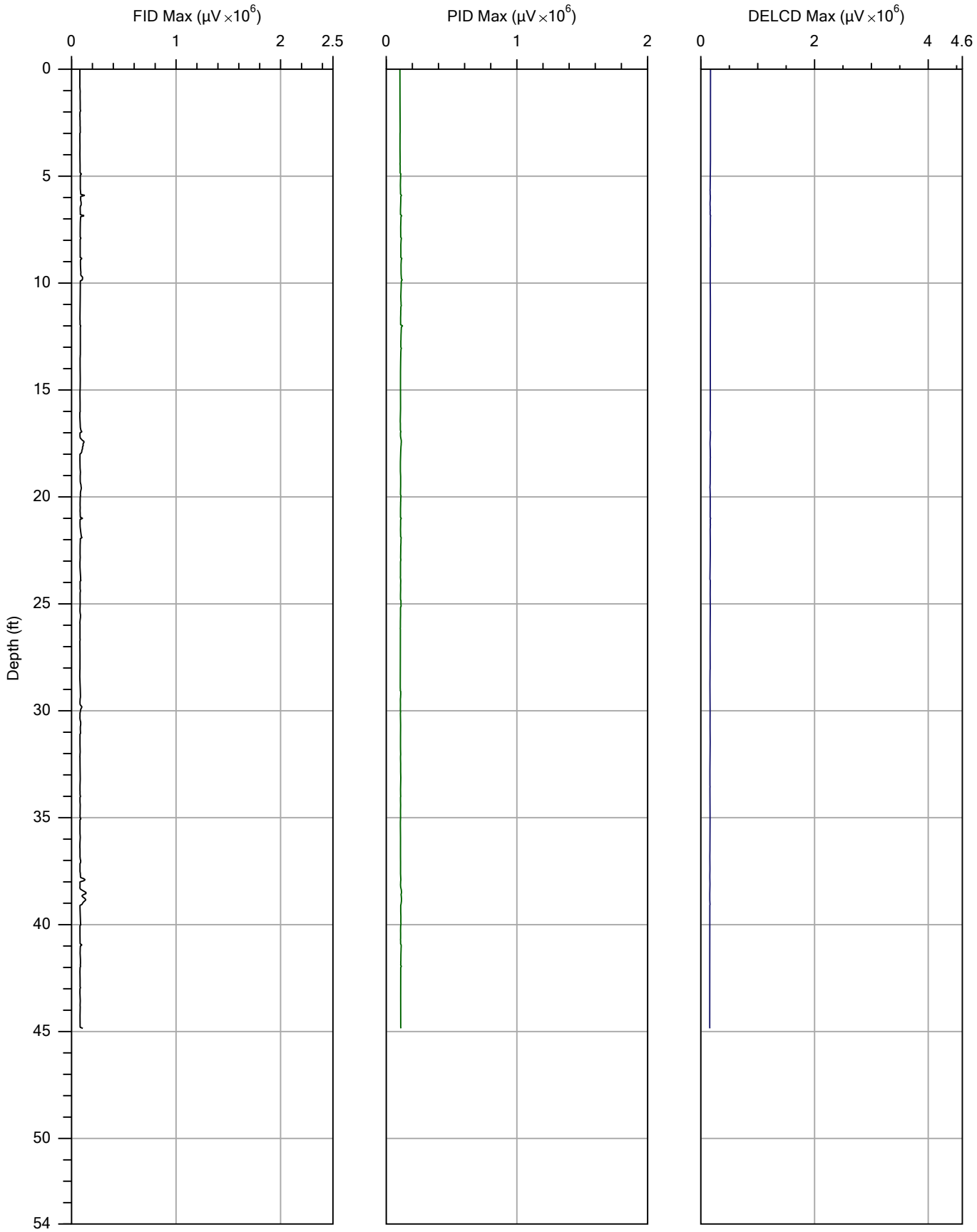
Job Number	04.1913-0010	CPT Number	18CPT08	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	26-Feb-2013 12:40:01	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



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Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 2/26/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

AECOM

Client: USACE			**BORING ID:** 18CPT09
Project Number:			
Site Location: Lithmo - 18/24			
Coordinates:	Elevation:		Sheet: 1 of 1
Drilling Method: Geoprobe 6600			Monitoring Well Installed:
Sample Type(s): Grab	Boring Diameter: 2"		Screened Interval:
Weather: Clear - warm	Logged By: J	Date/Time Started: 4-1-13	Depth of Boring: 25'
Drilling Contractor: GTTI	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
							Discontinuous Sampling		
1	6-7	X	@ 1420	45%	Ø	ML	5-7 - Clayey silt w/ Sand, Lt. grey, orangish brown, moist		
2									
3						SM	7-7.5 - 9 - Silty fine sand, lt. gray and orangish brown, moist - Damp. Poorly graded.		
4									
5						SM	9-10 - Silty fine sand, lt. gray orangish brown mottling, wet, poorly graded.		
6									
7							Discontinuous Sampling		
8						SM	10-13 - Silty ~~clay~~ fine sand, lt. grey and orangish brown mottling, wet		
9	12-13	X	@ 1435		Ø	SP	13-14 - Sand (fine grain), poorly graded, wet lt. grey w/ orangish brown mottling		
10						SM	14-15 - Silty Sand, poorly graded, lt. gray w/ orangish brown mottling wet		
11									
12									
13							Discontinuous sampling		
14	16-17	X	@ 1445		Ø	SM	15-20 - Silty Sand, lt. grey w/ orangish brown mottling, wet, poorly graded,		
15									
16							Discontinuous Sampling		
17	21-22	X	@ 1520		Ø	SP	20-21 - fine Sand, poorly graded, wet, lt. gray		
18						SP	21-23 - Fine sand, poorly graded, orangish brown, and lt. grey, wet		
19						SM	23-24 - Silty Sand, ~~grey~~ ~~greenish~~ gray, wet, poorly graded		
20							24-25 - Sand, poorly graded, brownish grey, wet		

NOTES:

Date	Time	Depth to groundwater while drilling

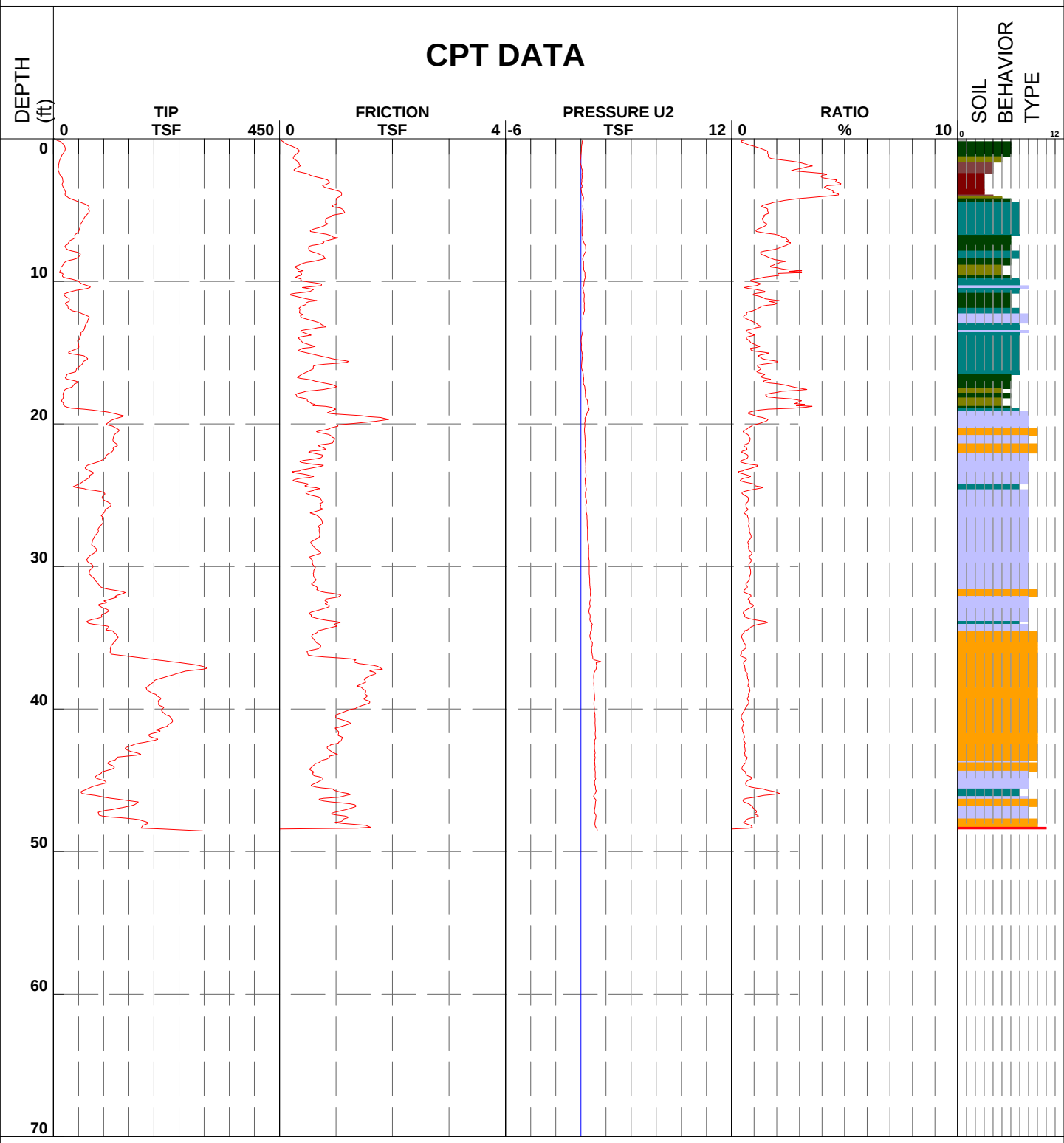
Checked by

Date: 4-1-13

00122693

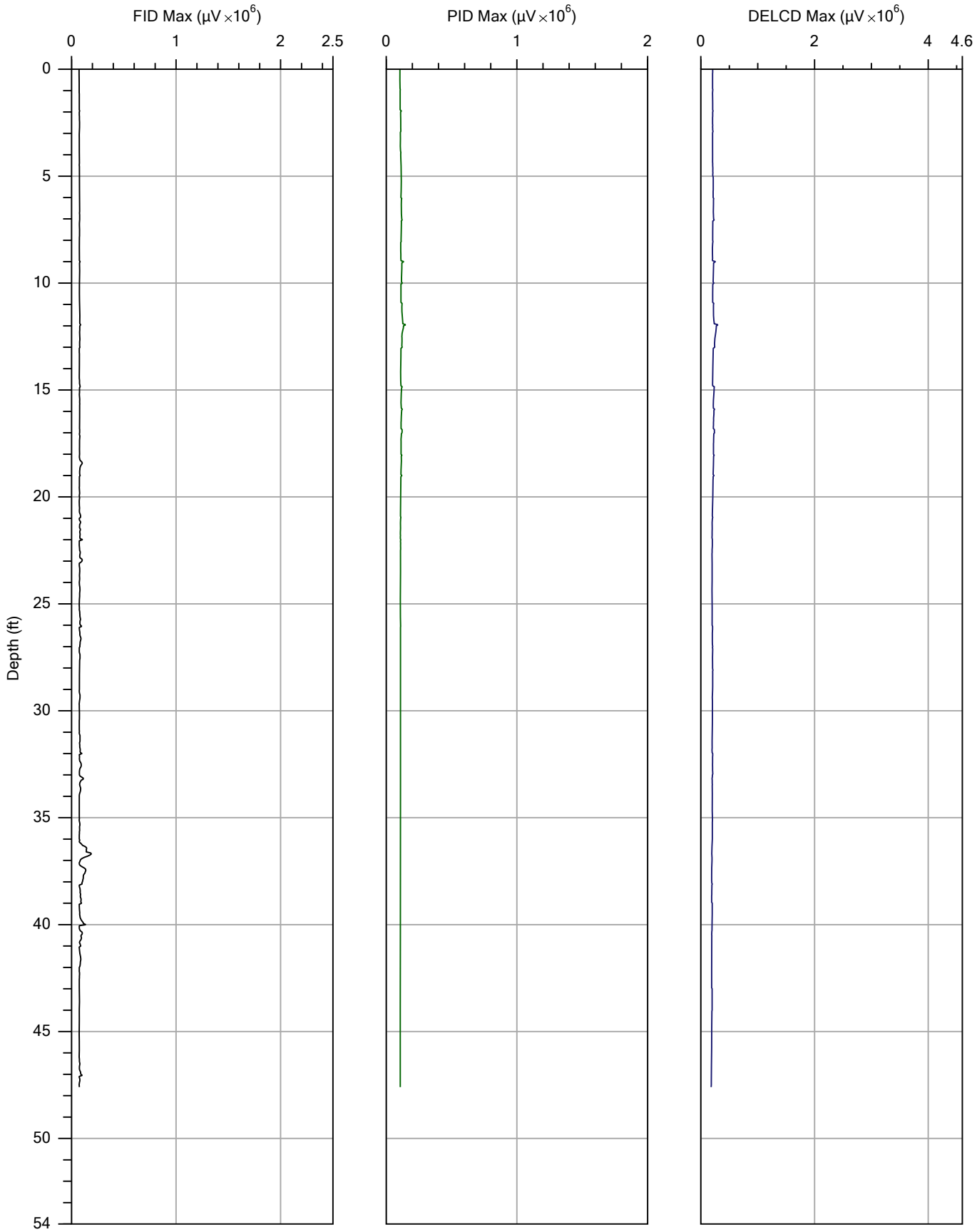
Job Number	04-1913-0010	CPT Number	18CPT09	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	01-Mar-2013 13:41:25	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



		File: 18MIP09.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 3/1/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP SITE 18/24
Coordinates:	Elevation:
Drilling Method:	MUD ROTARY
Sample Type(s):	Boring Diameter: 14", 8"
Weather:	Logged By: / Date/Time Started:
Drilling Contractor:	Ground Elevation: / Date/Time Finished:

BORING ID: 18CPTMW 10DW

Sheet: 1 of 1

Monitoring Well Installed: YES

Screened Interval: 43.0-52.5

Depth of Boring: 53.0

Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1							FOR LITHOLOGY DESCRIPTIONS SEE SOIL BORING LOG 14" BORE HOLE		
2							18CPTMW-10DW 10" DIAM. SCH. 40 PVC SURFACE CASING		
3									
4							TYPE I/II PORTLAND CEMENT W/ BENTONITE GROUT		28.0'
5							8" BORE HOLE		
6									36.0'
7							3/8" BENTONITE PELLETS		
8									
9									41.0
10							4" DIAM. SCH. 40 PVC WELL CASING		
11									43.0
12									
13							0.01" SCH. 40 PVC SLOTTED SCREEN		
14									
15									
16									
17									52.5
18									
19									53'
20									

NOTES: CENTRALIZERS AT MIDPOINTS 8.5', 35.5, 52'

Date	Time	Depth to groundwater while drilling

Checked by

Date:

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP SITE 18/24
Coordinates:	Elevation:
Drilling Method:	HSA GEOPROBE, MUD ROTARY, "
Sample Type(s):	5' SPLIT BARREL, TUBE
Boring Diameter:	8¼ 2" 14"
BORING ID:	18CPT MW 10DW
Sheet:	1 of 5
Monitoring Well Installed:	YES
Screened Interval:	88.5-98.5
Weather:	SUNNY WARM 70's
Logged By:	CS, GHJG
Date/Time Started:	3/14/13
Depth of Boring:	101'
Drilling Contractor:	ETTL
Ground Elevation:	
Date/Time Finished:	
Water Level:	NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (ft)	WELL CONSTRUCT
						OL	ORGANIC SILT, BROWN, DAMP			
1				50%	0.0	CL	0.2' SILTY CLAY, YELLOWISH RED, DAMP STIFF TO VERY STIFF, MEDIUM TO HIGH PLASTICITY			
2										
3				50%	0.0	SM	2.5' SILTY FINE SAND, YELLOWISH BROWN, DAMP			
4							10" DIA. SCH. 40 PVC SURFACE CASING →			
5					0.6		5' SILTY CLAY, YELLOWISH BROWN W/ GRAY MOTTLING, DAMP, STIFF, LOW PLASTICITY			
6				100%		CL				
7										
8					0.0		8.5' FINE SAND, YELLOWISH BROWN W/ BLACK MOTTLING DRY (SHELBY TUBE)			
9										
1600 10	X	GEOTECH 9-10'		100%		SP	4" DIA. SCH 40 PVC WELL CASING →			
11							11' FINE SAND, YELLOWISH BROWN, DRY			
12				100%	0.0	SP				
13							TYPE I/II PORTLAND CEMENT W/ BENTONITE GROUT →			
14							14' CLAYEY FINE SAND, WET, LOW PLASTICITY			
15					10.6	SC				
16										
1617 17	X	GEOTECH 16-17'		100%		CL	16' SILTY CLAY, GRAY W/ REDDISH BROWN MOTTLING, DAMP, STIFF, MEDIUM PLASTICITY			
1620	X	18CPT-10 17-18'				SP	17' FINE SAND, BROWN, WET			
18					20.3	CH	17.5' CLAY, GRAY W/ BROWN MOTTLING MOIST, VERY STIFF, HIGH PLASTICITY			
1630	X	GEOTECH 18-19			20.5	SC	18.5' CLAYEY FINE SAND, GRAY W/ BROWN MOTTLING MOIST, SOFT			
19										
1710 20	X	18CPT-10 19-20			10.0	CL	19' SILTY CLAY, MOTTLED LIGHT GRAY & YELLOWISH BROWN DAMP, STIFF TO VERY STIFF, HIGH PLASTICITY			

NOTES: DUPLICATE SAMPLE TAKEN OF 18CPT-10, 19-20'

10" SURFACE CASING INSTALLED 3/5/13 W/ 14" ROTARY DRILL BIT

Date	Time	Depth to Groundwater while drilling

Checked by Date

18CPTMW10DW

AECOM

Client: USACE			~~18CPT MW10DW~~ BORING ID: ~~18CPT-10~~
Project Number: 60274185			
Site Location:			
Coordinates:	Elevation:		Sheet: 2 of 5
Drilling Method:			Monitoring Well Installed:
Sample Type(s):	Boring Diameter:		Screened Interval:
Weather:	Logged By:	Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample Depth (ft)~~ WELL CONSTRUCTION
20									
1						CL	21' SILTY CLAY, MOTTLED YELLOWISH BROWN & LIGHT GRAY, MOIST, SOFT, MEDIUM PLASTICITY W/ OCCASIONAL 2" SILTY FINE SANDS		
2				100%	5.0	CL			
3							23' SILTY FINE SAND, MOTTLED YELLOWISH BROWN AND LIGHT GRAY, WET		
4		GEOTECH 24-25				SM			
1720 5	X				53	CL	24' SILTY CLAY, MOTTLED YELLOWISH BROWN & LIGHT GRAY, DAMP, MEDIUM STIFF	CENTRALIZER	X
6								10" DIAM. SCH 40 PVC SURFACE CASING	
7		18CPT-10 7-7.5'		100%		SM	26' SILTY FINE SAND, MOTTLED YELLOWISH BROWN & LIGHT GRAY, WET		
1740	X				108	CL	27' SILTY CLAY, BROWN, DAMP, MEDIUM STIFF		
8		18CPT-10 28-29							28
1750 9	X				257	CL	28' GRAY, STIFF		
10							DRILLED & SAMPLED W/ GEOPROBE 3/15/13		
11				95%			30' SILTY CLAY, LIGHT BLUISH GRAY & REDDISH BROWN, MOIST, STIFF		
12								8" DIAM BOREHOLE	
13						CL		4" DIA. SCH 40 PVC WELL CASING	
14									
15							35' GRAY AND REDDISH BROWN, MOIST-WET		
16									
17				95%				TYPE I/II PORTLAND CEMENT & BENTONITE GROUT	
18							38.5' FINE-MEDIUM SAND, LIGHT GRAY, MOIST TO WET		
19						SP			
20									

NOTES: MW WAS DRILLED W/ 8" MUD ROTARY DRILL BIT ON 3/28/13

Date	Time	Depth to groundwater while drilling

Checked by _____ Date _____

AECOM

Client: USACE			18 CPT MW 10DW
Project Number: 60274185			BORING ID: 18CPT MW10
Site Location:			
Coordinates:	Elevation:		Sheet: 3 of 5
Drilling Method:			Monitoring Well Installed:
Sample Type(s):	Boring Diameter:		Screened Interval:
Weather:	Logged By:	Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
40									
							- BROWNISH GRAY		
1							- BLUISH GRAY		
2				95%				8" DIA. HOLE	
3									
4								4" DIA. SCH. 40 PVC WELL CASING	
5						SP	- BROWNISH GRAY		
6									
7				95%				TYPE I/II PORTLAND CEMENT W/BENTONITE GROUT	
8									
9							- LIGHT BROWN		
50							50' MEDIUM SAND, DARK REDDISH BROWN, WET		
11						SP			
12				95%					
13							53'		
14						SM	SILTY SAND W/CLAY, DARK GRAY, WET		
15								CONTACTOR	
16						SP	55' FINE TO MEDIUM SAND, DARK BROWN, WET		
17					0.0	SP	56' GRAVELLY FINE TO MEDIUM SAND, DARK BROWN, WET, GRAVEL TO 0.25"		
18				95%					
19					0.0	SP	58 FINE TO MEDIUM SAND, DARK BROWN, WET		
60									

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by Date

AECOM

Client: USACE		18CPT MW 10 DW
Project Number: 60274185		BORING ID: [illegible]
Site Location:		
Coordinates:	Elevation:	Sheet: 4 of 5
Drilling Method:		Monitoring Well Installed:
Sample Type(s):	Boring Diameter:	Screened Interval:
Weather:	Logged By: / Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation: / Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
60							DRILLED WITH MUD ROTARY 8" DRILL BIT 3/28/13		
1									
2				95%			8" DIAMETER HOLE		
3	X	1 HYDROPUNCH							
4									
5						SM	SILTY FINE SAND, LIGHT GRAY		
6									
7							4" DIA. SCH 40 PVC CASING		
8									
9									
70						SP	MEDIUM SAND, LIGHT GRAY		
11									
12							TYPE I/II PORTLAND CEMENT W/BENTONITE GROUT		
13									
14									
15						SP	FINE-MEDIUM SAND, LIGHT GRAY		
16									
17									
18									
19									
20									

NOTES: GEOPROBE HITS REFUSAL @ 64'
GRAB SAMPLE WAS TAKEN W/ MUD ROTARY EVERY 5' STARTING AT 65'

Date	Time	Depth to groundwater while drilling

Checked by _____ Date _____

AECOM

Client: USACE			BORING ID: 18CPT MW 10DW / 18CPT-10
Project Number: 60274185			
Site Location:			
Coordinates:	Elevation:		Sheet: 5 of 5
Drilling Method:			Monitoring Well Installed:
Sample Type(s):	Boring Diameter:		Screened Interval:
Weather:	Logged By:	Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Well Construction
80									
1						SP	FINE - MEDIUM SAND, LIGHT GRAY		CENTRALIZER
2									4" DIAM SCH. 40 PVC WELL CASING
3									82'
4									BENTONITE PELLETS
5						SP	FINE SAND, LIGHT GRAY		85'
6									8" DIAM. HOLE
7									20/40 SILICA SAND
8									
9									88.8
10						SM	SILTY FINE SAND, LIGHT GRAY		
11									
12									0.01" SCH. 40 PVC SLOTTED SCREEN
13									
14									
15						SM	SILTY FINE SAND, LIGHT GRAY		
16									
17									CENTRALIZER
18									98.3
19									COLLAPSED HOLE 98.8
100						SM	SILTY FINE SAND, LIGHT GRAY		

NOTES: BOREHOLE OVERDRILLED TO 101'

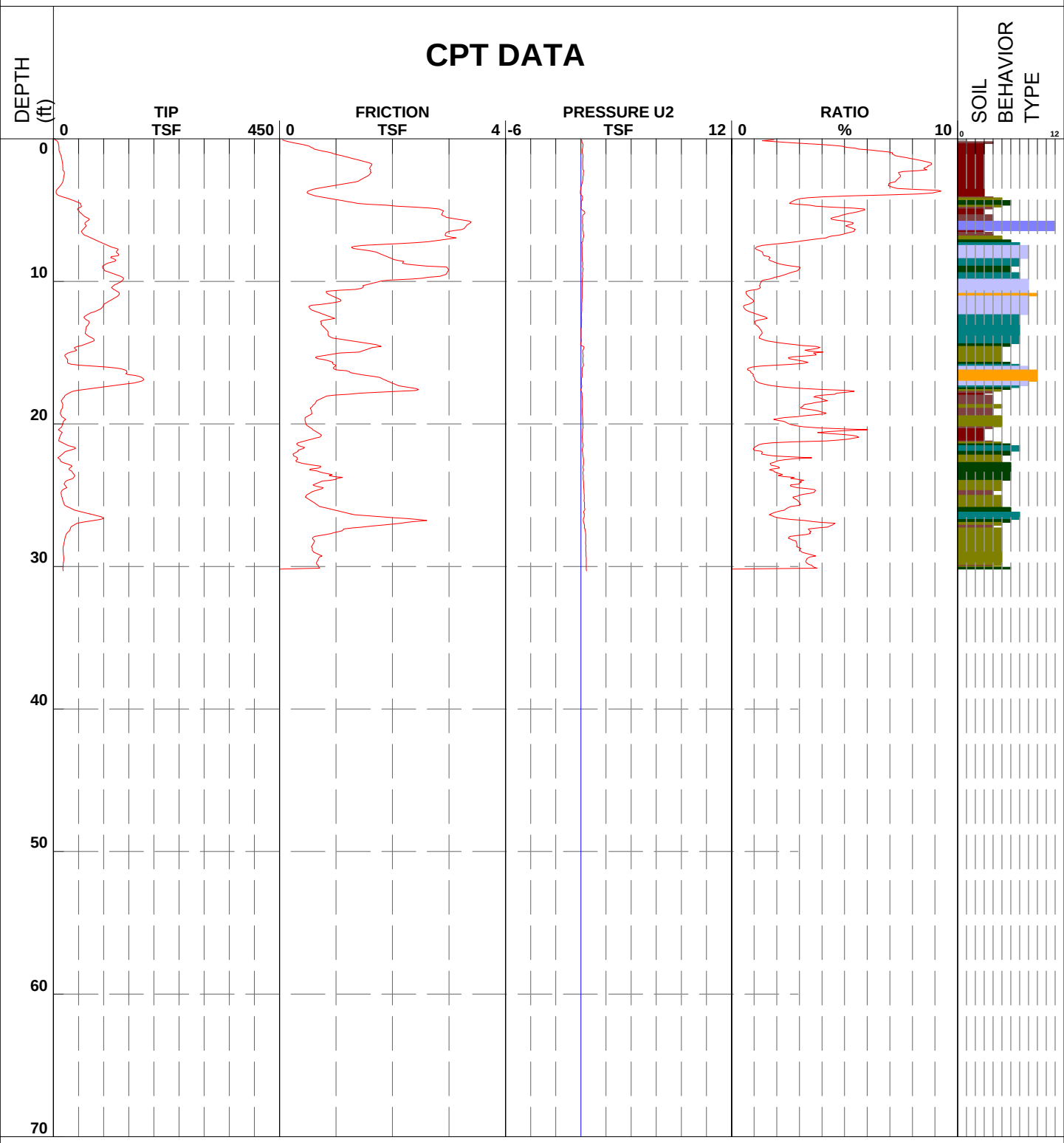
Date	Time	Depth to groundwater while drilling

Checked by _____ Date: _____

00122701

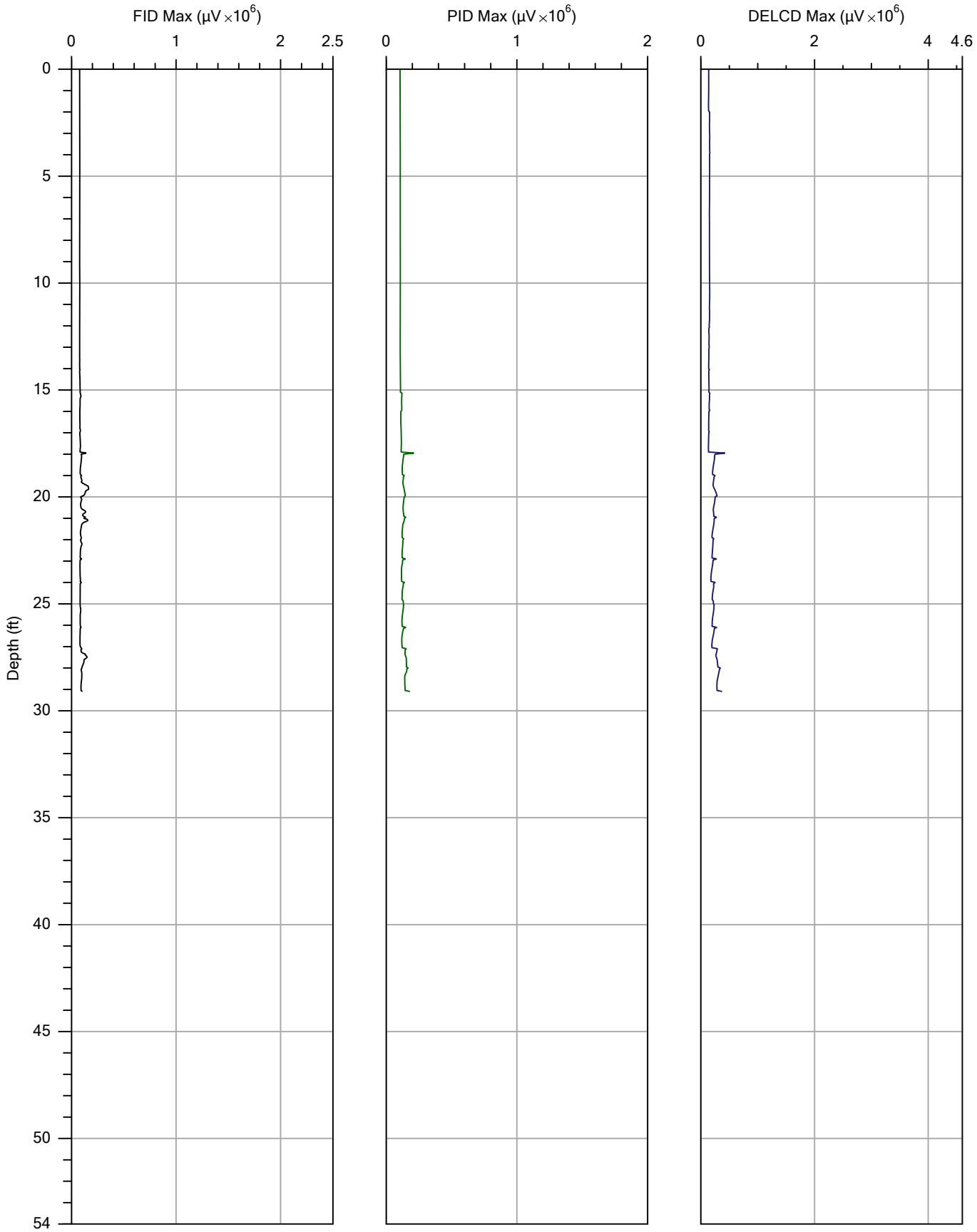
Job Number	04.1913-0010	CPT Number	18CPT10	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	26-Feb-2013 15:17:25	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented

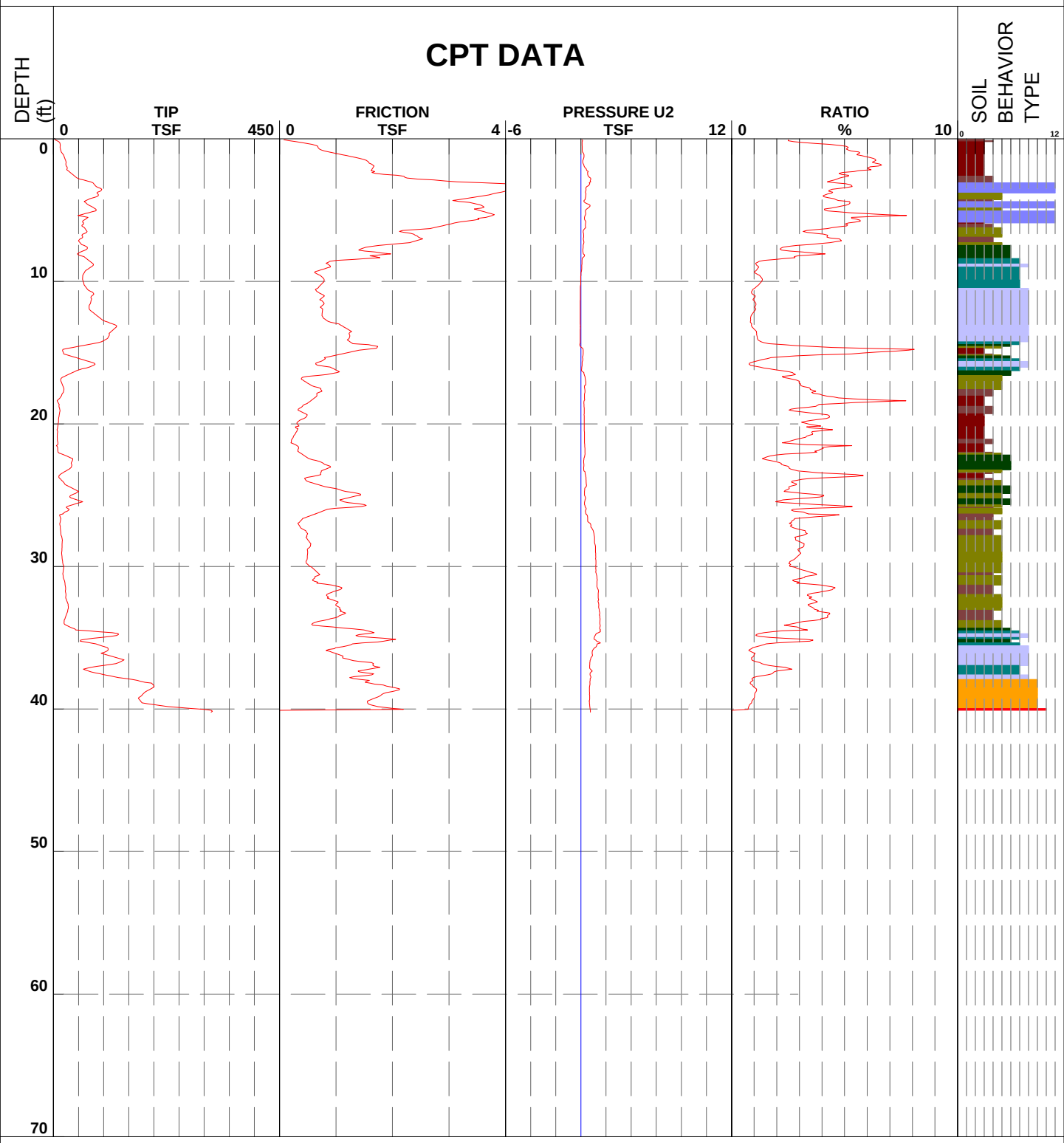


		File: 18MIP10.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 2/26/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

00122703

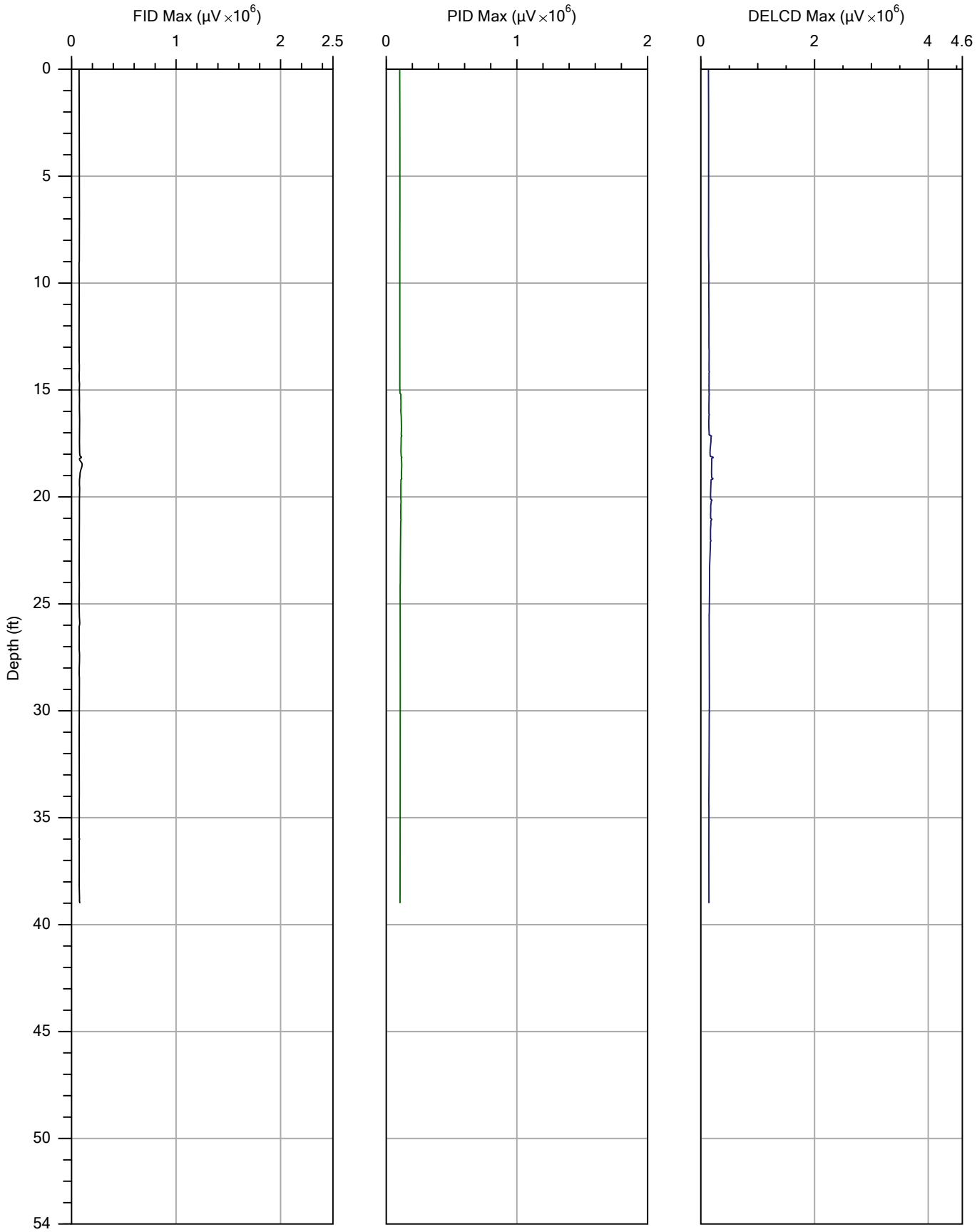
Job Number	04.1913-0010	CPT Number	18CPT11	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	04-Mar-2013 13:09:44	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



		File: 18MIP11.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 3/4/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP Site 18/24
Coordinates:	Elevation:
Drilling Method:	MUD ROTARY
Sample Type(s):	Boring Diameter: 14" 8"
Weather:	Logged By: / Date/Time Started:
Drilling Contractor:	Ground Elevation: / Date/Time Finished:

BORING ID: 18CPT MW-12SW

Sheet: 1 of 1

Monitoring Well Installed: YES

Screened Interval: 42.5-52.0

Depth of Boring: 52.5

Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1							FOR LITHOLOGY DESCRIPTION SEE BORING LOG 18CPT MW-12SW		
2							14" BORE HOLE		
3							10" DIAM. SCH 40 PVC SURFACE CASING		
4								28.0	28.0
5							4" DIAM. SCH. 40 PVC WELL CASING		8" BORE HOLE 33.5
6									
7							3/8" BENTONITE PELLETS		
8									40.0
9							20/40 SILICA SAND		
10									42.5
11									
12							0.01" SCH. 40 PVC SLOTTED SCREEN		
13									
14									
15									
16									
17									52.0
18									52.5
19									
20									

NOTES: CONTAMINATION AT MID POINTS 7', 35.0', 51.5'

Date	Time	Depth to groundwater while drilling

Checked by Date:

18CPTMW12DW

AECOM

Client: USACE	BORING ID: ~~18CPT-12DW~~
Project Number: 60274185	
Site Location: LHAAP 18/24	
Coordinates:	Elevation:
Drilling Method: HSA GEOPROBE MUD ROTARY 2"	Sheet: 1 of 5
Sample Type(s): 5' SPLIT + SOLID CORE	Boring Diameter: 10¼ + 18¼
Monitoring Well Installed: YES	Screened Interval: 90-99.5
Weather: SUNNY + COLD	Logged By: CS
Date/Time Started: 3/5/13	Depth of Boring: 100'
Drilling Contractor: ETTL	Ground Elevation:
Date/Time Finished:	Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample~~ Depth (ft) Well Completion
1				50%	1.6	SC	0' CLAYEY FINE SAND, REDDISH BROWN, DAMP		
2						CL	1' SILTY CLAY, YELLOWISH BROWN, DAMP, STIFF, LOW PLASTICITY		
3				50%	1.9	CL	2' SANDY CLAY, YELLOWISH BROWN + REDDISH BROWN, MOIST, STIFF, MEDIUM PLASTICITY		
4									
5						CH	4' SILTY CLAY, REDDISH BROWN, MOIST, STIFF TO VERY STIFF, HIGH PLASTICITY		
6				100%	1.9	ML	5' CLAYEY SILT, GRAY W/ YELLOWISH BROWN MOTTLING		
7									
8					3.9				
9						ML	8.5' SANDY SILT, GRAY, DAMP		
10					4.8	ML	9.5' CLAYEY SILT, GRAY W/ YELLOWISH BROWN MOTTLING, DAMP, MEDIUM PLASTICITY		
11				100%					
12						SM	11' SANDY SILT W/ TRACE OF CLAY		
13		18CPT12 13-14'			3.3				
14	X				~~3.8~~	SM	13' SILTY FINE SAND, YELLOWISH BROWN, DAMP		
15					1.9				
16				60%		SP	16' FINE SAND, BROWN, WET		
17						ML	17' CLAYEY SILT, GRAY, DAMP, STIFF, LOW-MEDIUM PLASTICITY		
18		18CPT12 18-19'			3.5	ML	18' SANDY SILT, GRAY, MOIST TO WET		
19	X					~~[illegible]~~	19' WET		
20									

1550

1600

10" DIA. SCH 40 PVC SURFACE CASING

TYPE I/II PORTLAND CEMENT W/ BENTONITE GROUT

4" DIA. SCH. 40 PVC WELL CASING

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by _____ Date _____

18CPTMW12DW

AECOM

Client: USACE		BORING ID: ~~18CPT-12~~
Project Number: 60274185		
Site Location: LHAAP - 18/24		
Coordinates:	Elevation:	Sheet: 2 of 5
Drilling Method: HSA, GEOPROBE, MUD ROTARY		Monitoring Well Installed:
Sample Type(s):	Boring Diameter:	Screened Interval:
Weather:	Logged By: CS / Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation: / Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample Depth (ft)~~ WELL COMPLETION
20									
1					7.9		20.5' SILTY CLAY, YELLOWISH BROWN, STIFF, WET		
2							21.5' SILTY CLAY TO CLAY, GRAY W/ YELLOWISH BROWN LAMINATIONS, WET, STIFF, HIGHLY PLASTIC		
1615 3	X	22-23			11.4				
4						CH			
5					18.2		10" DIA. SCH 40 PVC SURFACE CASING		X
6							CENTRALIZER		
7				100%			4" DIA. SCH. 40 PVC WELL CASING		
8							28' SOFT TO MEDIUM STIFF		28'
1630 9	X	28-29			12.7		ENDED HSA BOREHOLE 3/5/13		
30							DRILLED W/ GEOPROBE 3/13/13		
11							30' SILTY CLAY, MOTTLED LIGHTY GRAY AND YELLOWISH BROWN DAMP, VERY STIFF, MEDIUM PLASTICITY, OCCASIONAL YELLOWISH BROWN SILTY FINE SAND, MOIST		
12				100%		CL			
13							8" DIA. BORE HOLE		
14							34' SILTY CLAY, MOTTLED YELLOWISH BROWN, LIGHT GRAY & BLUISH GRAY, DAMP, VERY STIFF, HIGHLY PLASTIC		
15									
16						CH			
17				60%			TYPE I/II PORTLAND CEMENT W/ BENTONITE GROUT		
18							37.5 SILTY FINE SAND, YELLOWISH BROWN, MOIST		
19						SM			
40									

NOTES: 3/6/12 ETTL INSTALLS 10" SURFACE CASING TO 28' AFTER DRILLING W/ 14" DRILL BIT TO 27'

Date	Time	Depth to groundwater while drilling

Checked by: Date:

18CPTMW12DW

AECOM

Client:	USACE
Project Number:	60277185
Site Location:	LHAAP - 18/24
Coordinates:	Elevation:
Drilling Method:	
Sample Type(s):	Boring Diameter:
Weather:	Logged By:
Drilling Contractor:	Ground Elevation:

BORING ID: ~~18CPT-12~~

Sheet: 3 of 5

Monitoring Well Installed:

Screened Interval:

Date/Time Started:

Depth of Boring:

Date/Time Finished:

Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
40							40'		
1						ML	CLAYEY SILT TO CLAYEY VERY FINE SAND, GRAY, WET, SOFT, LOW PLASTICITY		
							41'		
2				100%		SM	SILTY FINE SAND, GRAY TO DARK GRAY, WET W/ OCCASIONAL ORGANIC MATTER		
3									
4								8" DIA. BORE HOLE	
5									
6							NO SAMPLE		
7								4" DIA. SCH 40 PVC WELL CASING	
8				0%					
9									
50							50'		
11						SM	SILTY FINE SAND, LIGHT GRAY, WET	TYPE I/II PORTLAND CEMENT AND BENTONITE GROUT	
12									
13				100%			52.5' FINE SAND, YELLOWISH BROWN, WET		
14									
15								CENTRALIZER	
16						SP	55' LIGHT GRAY		
17							56.5' LIGHT YELLOWISH BROWN		
18				100%					
19							58.5' LIGHT GRAY		
20							59.5 LIGHT YELLOWISH BROWN		

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date:

18CPTMW12DW

AECOM	Client: USACE		BORING ID: ~~18CPT-12~~
	Project Number: 60274185		
	Site Location: LHAAP-18/24		
	Coordinates:	Elevation:	Sheet: 4 of 5
	Drilling Method:		Monitoring Well Installed:
	Sample Type(s):	Boring Diameter:	Screened Interval:
Weather:	Logged By:	Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample~~ Well Completion
							MUD ROTARY 3/25/13		
60						SM	SILTY FINE SAND, LIGHT BROWN		
1									
2							4" DIA. SCH. 40 PVC CASING		
3									
4		HYDRO PUNCH 18CPT-12, 64' 3/14/13							
0840 5	X					SP	FINE SAND, LIGHT BROWN		
6							TYPE I/II PORTLAND CEMENT AND BENTONITE GROUT		
7									
8									
9									
70						SP	FINE SAND, LIGHT BROWN		
11									
12							8" DIA. BOREHOLE		
13									
14									
15						SP	FINE SAND, LIGHT BROWN		
16									
17									
18									
19									
80									

NOTES: DRILLED W/ MUD ROTARY BEGINNING 3/25/13, COLLECTED GRAB SAMPLES EVERY 5'.

Date	Time	Depth to groundwater while drilling

Checked b Date

18CPTMW12DW

AECOM	Client: USACE		BORING ID: ~~18CPT-12~~
	Project Number: 60274185		
	Site Location: LHAAP SITE 18/24		
	Coordinates:	Elevation:	Sheet: 5 of 5
	Drilling Method:		Monitoring Well Installed:
	Sample Type(s):	Boring Diameter:	Screened Interval:
Weather:	Logged By:	Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (ft)
80						SM	SILTY FINE SAND, LIGHT BROWN		
1							PORTLAND CEMENT TYPE I/II AND BENTONITE GROUT		
2									
3							4" DIA. SCH 40 PVC CASING		
4									
85						SM	SILTY FINE SAND, LIGHT BROWN		84.8
6							BENTONITE PELLETS		
7									
8							20/40 SILICA SAND		87.8
9									
90						SM	SILTY FINE SAND, LIGHT BROWN		90.
11									
12							0.01" SCH. 40 PVC SCREEN		
13									
14									
95							SHALE & LIGNITE, GRAY - DARK GRAY		
16									
17							8" DIA. BOREHOLE		
18									
19								99.5	
100							SHALE, LIGNITE & FINE SAND		100'

Lab Sample Depth (ft) / Well Completion

CENTR IZER

CENTR IZER

TD=100'

NOTES:

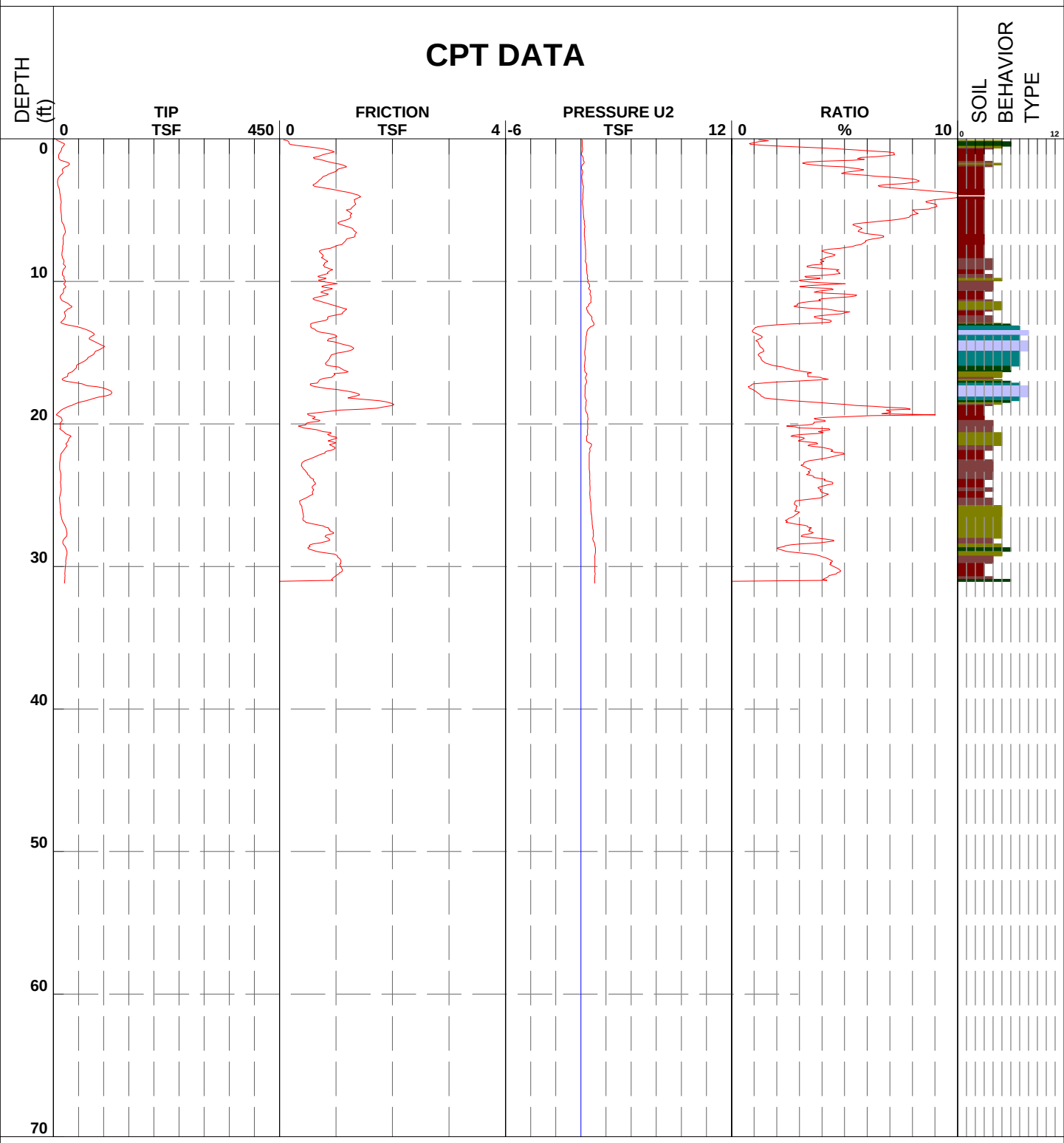
Date	Time	Depth to groundwater while drilling

Checked by Date

00122711

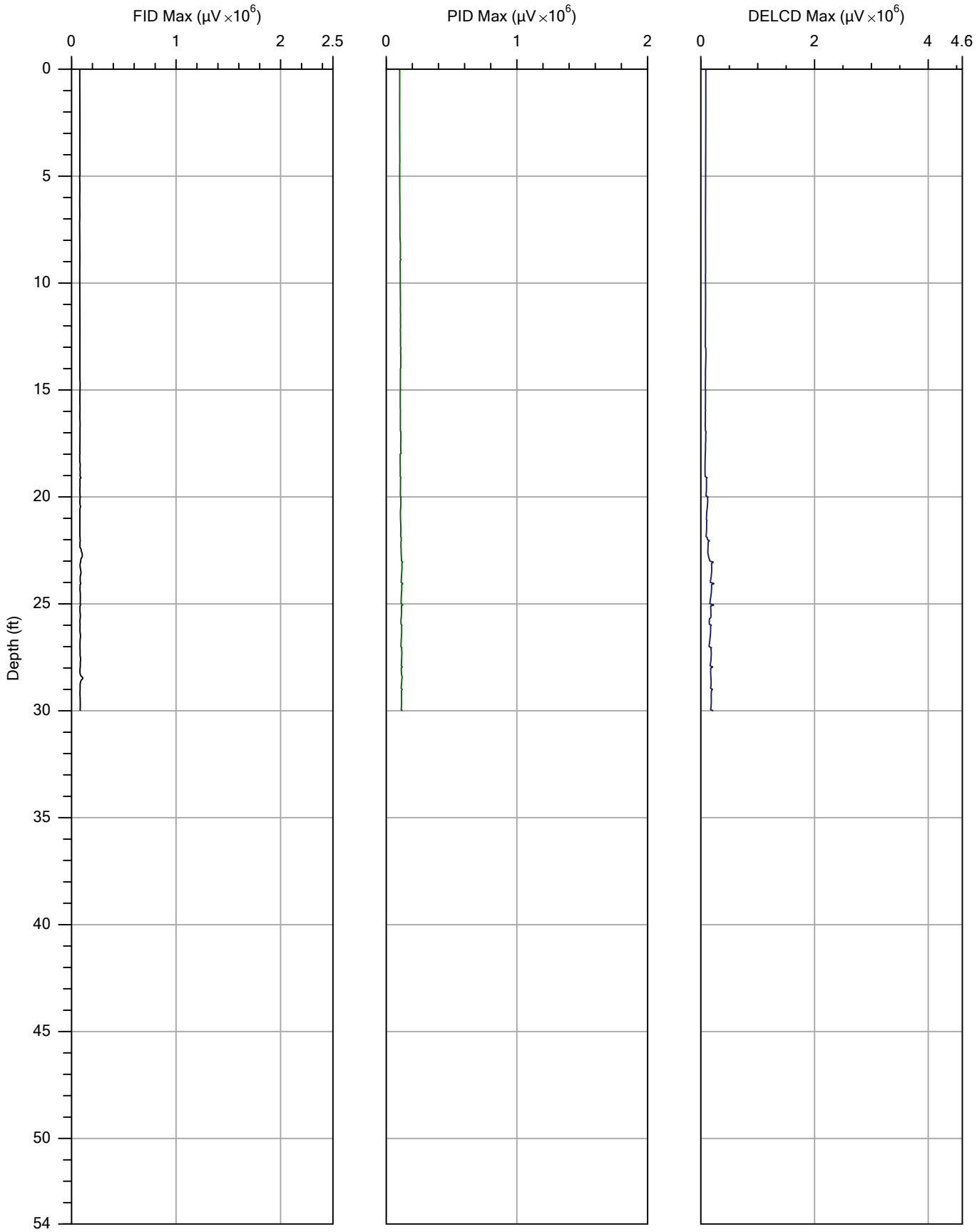
Job Number	04-1913-0010	CPT Number	18CPT12	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	27-Feb-2013 08:32:31	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



		File: 18MIP12.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 2/27/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

AECOM

Client: USAEC		BORING ID: 18CPT 13
Project Number: 60274185		
Site Location: LHAAP SITE 18/24		
Coordinates:	Elevation:	Sheet: 1 of 3
Drilling Method: GEOPROBE		Monitoring Well Installed: No
Sample Type(s):	Boring Diameter: 2"	Screened Interval: NA
Weather: SUNNY WARM	Logged By: GH / Date/Time Started: 3/8/13	Depth of Boring: 50'
Drilling Contractor: ETTL	Ground Elevation: / Date/Time Finished:	Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1						SM	SILTY FINE SAND, YELLOWISH BROWN, DAMP		
2				100%		CL	1' SILTY CLAY, YELLOWISH BROWN, DAMP MEDIUM STIFF		
3							2.5' - MOTTLED REDDISH BROWN & LIGHT GRAY VERY STIFF, MEDIUM PLASTIC		
4									
5						SP	5' FINE SAND, MOTTLED REDDISH BROWN & LIGHT GRAY, DAMP		
6									
7				100%					
8						CL	8' SILTY CLAY, LIGHT GRAY, DAMP, VERY STIFF, MEDIUM PLASTIC		
9									
10									
11						SM	11' SILTY FINE SAND, YELLOWISH BROWN, DAMP		
12				100%		SC	12' CLAYEY FINE SAND, MOTTLED YELLOWISH BROWN		
13						CL	12.5' SILTY CLAY, MOTTLED YELLOWISH BROWN & LIGHT GRAY, DAMP, VERY STIFF		
14									
15									
16						ML	16' CLAYEY SILT, LIGHT GRAY, DAMP, STIFF, LOW PLASTICITY		
17									
18		18CPT-13 18-19		100%	1.7	SM	17' SILTY FINE SAND, MOTTLED YELLOWISH BROWN & LIGHT GRAY, DAMP, OCCASIONAL CLAY LAYERS (4")		
19									
20									

0930

NOTES: CONDUCTED HYDRO PUNCH SAMPLING W/ CPT RIG IN SEPARATE HOLE DIM 3/5/13

Date	Time	Depth to groundwater while drilling

Checked by Date:

AECOM

Client: USACE			BORING ID: 18CPT 13
Project Number: 60274185			
Site Location: LHAAP SITE 18/24			
Coordinates:	Elevation:		Sheet: 2 of 2
Drilling Method:			Monitoring Well Installed:
Sample Type(s):	Boring Diameter:		Screened Interval:
Weather:	Logged By: GH	Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
20									
1									
2									
3				100%		SM			
4									
5									
6									
7							26.9'		
8 (0945)	X	18CPT-13 27.5-28.5		100%	1.4	CL	SILTY CLAY, LIGHT GRAY, DAMP, MEDIUM STIFF		
9						SP	27.5 FINE SAND, MOTTLED YELLOWISH BROWN & LIGHT GRAY, WET		
10	X	HYDROPUNCH 29-30'				CH	30 SILTY CLAY, YELLOWISH BROWN, MOIST, MEDIUM STIFF HIGH PLASTICITY HYDROPUNCH SAMPLE DRY AFTER 1 HR ON 3/5/13		
11						SM	30.8 SILTY FINE SAND, YELLOWISH BROWN & LIGHT GRAY, WET		
12				100%		SC	32 CLAYEY FINE SAND, YELLOWISH BROWN, MOIST		
13							32.6 SILT / SILTY FINE SAND, LIGHT GRAY, WET		
14						ML/SM			
15									
16 (1020)	X	18CPT-13 35-36 HYDROPUNCH SAMPLE 35-36			0.9		HYDROPUNCH SAMPLE OBTAINED VOAS ON 3/5/13 AND PERCHLORATE SAMPLE 3/6/13		
17									
18				100%					
19						CL	38' SILTY CLAY, LIGHT GRAY, MOIST, MEDIUM TO VERY STIFF, MEDIUM PLASTIC		
20									

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by Date:

AECOM

Client: USACE			BORING ID: 18CPT 13
Project Number: 60274185			
Site Location: LHAAP SITE 18/24			
Coordinates:	Elevation:		Sheet: 3 of 3
Drilling Method:			Monitoring Well Installed:
Sample Type(s):	Boring Diameter:		Screened Interval:
Weather:	Logged By:	Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
40									
1						SM	40' SILTY FINE SAND, LIGHT GRAY, WET		
2							41.5' FINE SANDY CLAY, LIGHT GRAY, WET		
3		18CPT-13			1.7	SC			
1045 4	X	43-44				CL			
5							45' INCREASE IN YELLOWISH BROWN COLOR		
6									
7									
8									
9									
50									
11							TD = 50'		
12									
13									
14									
15									
16									
17									
18									
19									
20									

NOTES: BOREHOLE BACKFILLED W/ TREMIED BENTONITE GROUT TO 50' ON 3/8/13

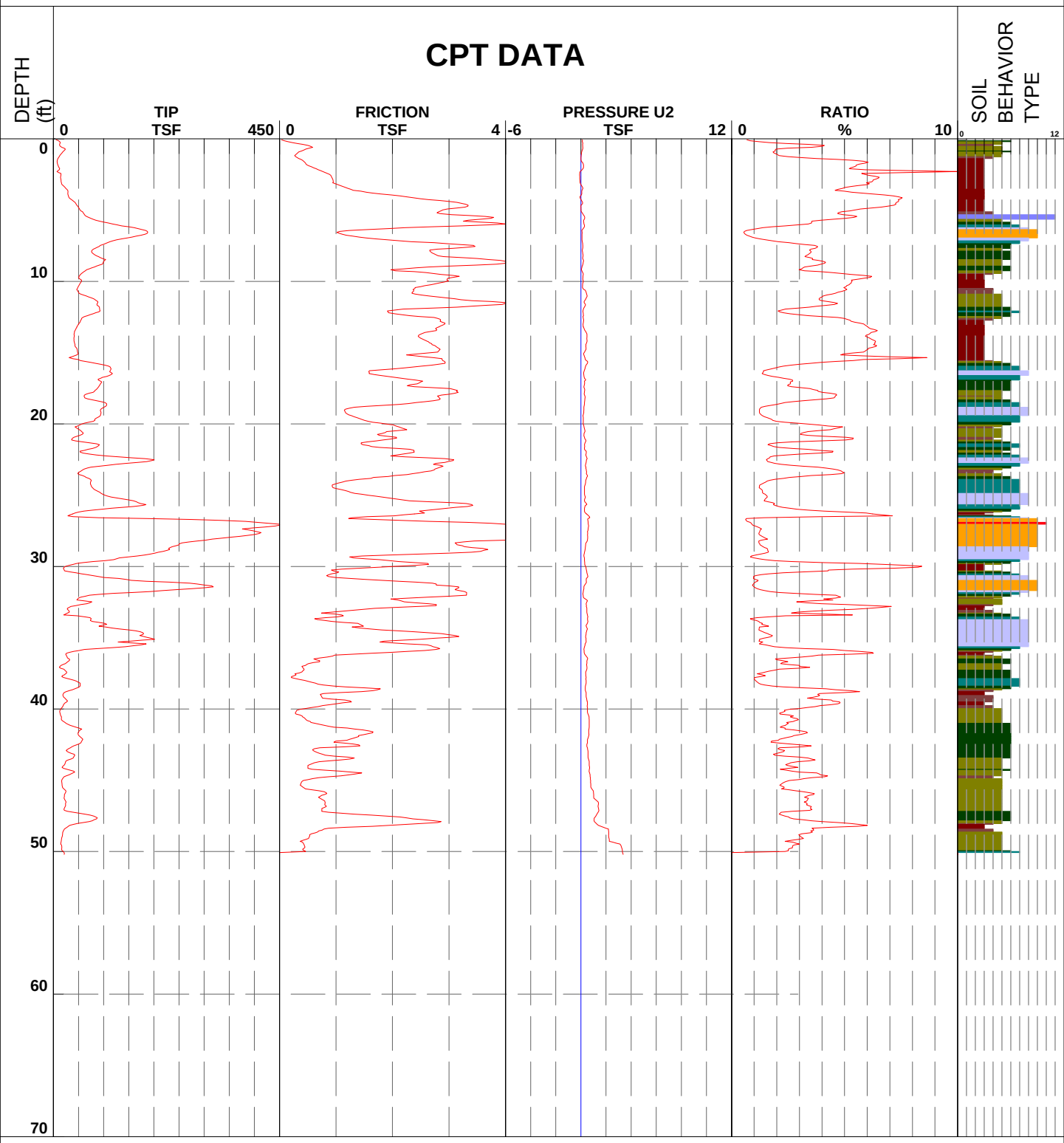
Date	Time	Depth to groundwater while drilling

Checked by Date:

00122716

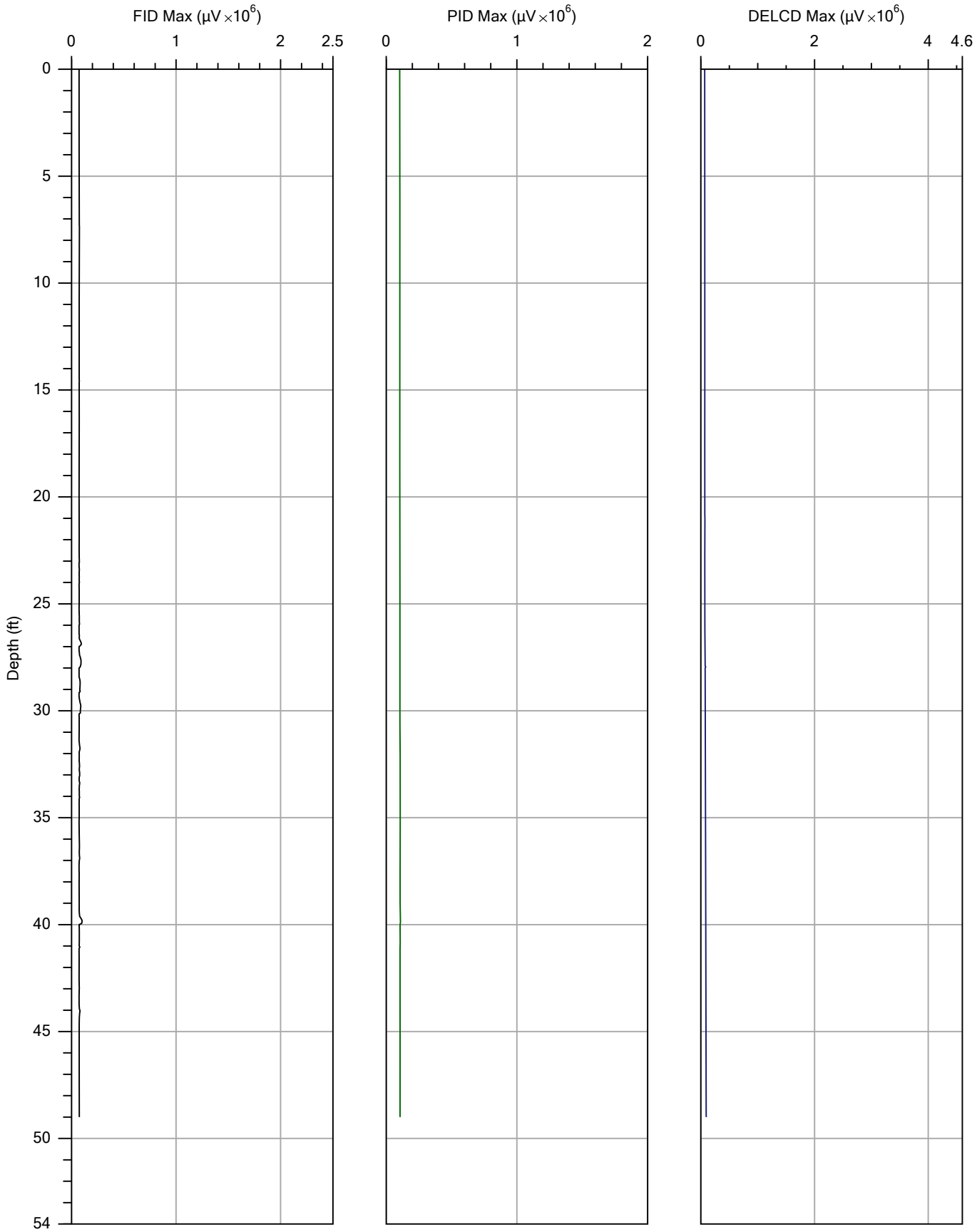
Job Number	04-1913-0010	CPT Number	18CPT13	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	04-Mar-2013 10:17:11	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



		File: 18MIP13.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 3/4/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

18CPTMW14

AECOM

Client: USACE	BORING ID: ~~MW-~~ 18CPT-14
Project Number: 60274185	
Site Location: LHAAP 18/24	
Coordinates:	Elevation:
Drilling Method: HSA	Sheet: 1 of 1
Sample Type(s): None	Monitoring Well Installed: Yes
Boring Diameter: 10 1/4"	Screened Interval: 23.9 - 33.4
Weather: Sunny & Warm	Logged By: NA
Date/Time Started: 4/16/13	Depth of Boring: 34'
Drilling Contractor: ETTL	Ground Elevation:
Date/Time Finished:	Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1							For Soil Descriptions See 18CPT-14 CPT Log		
2									
3									
4									
10									
6									
7									
8									
9									
20									18.0
11									21.9
12									23.9
13									
14									
30									
16									
17									33.4
18									33.9
19									TD 34'
40									

NOTES:

Date	Time	Depth to groundwater while drilling

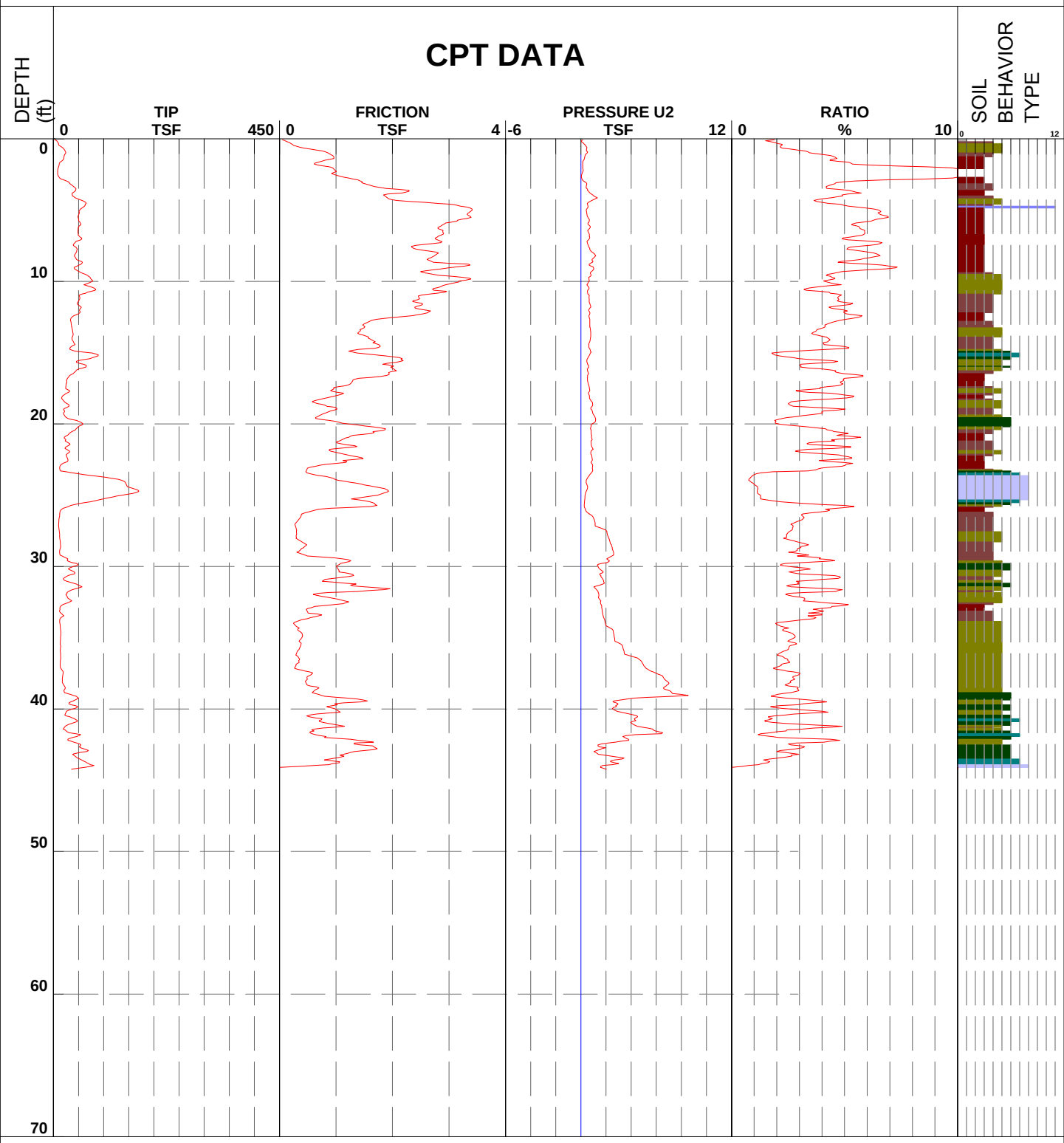
Checked by

Date:

00122719

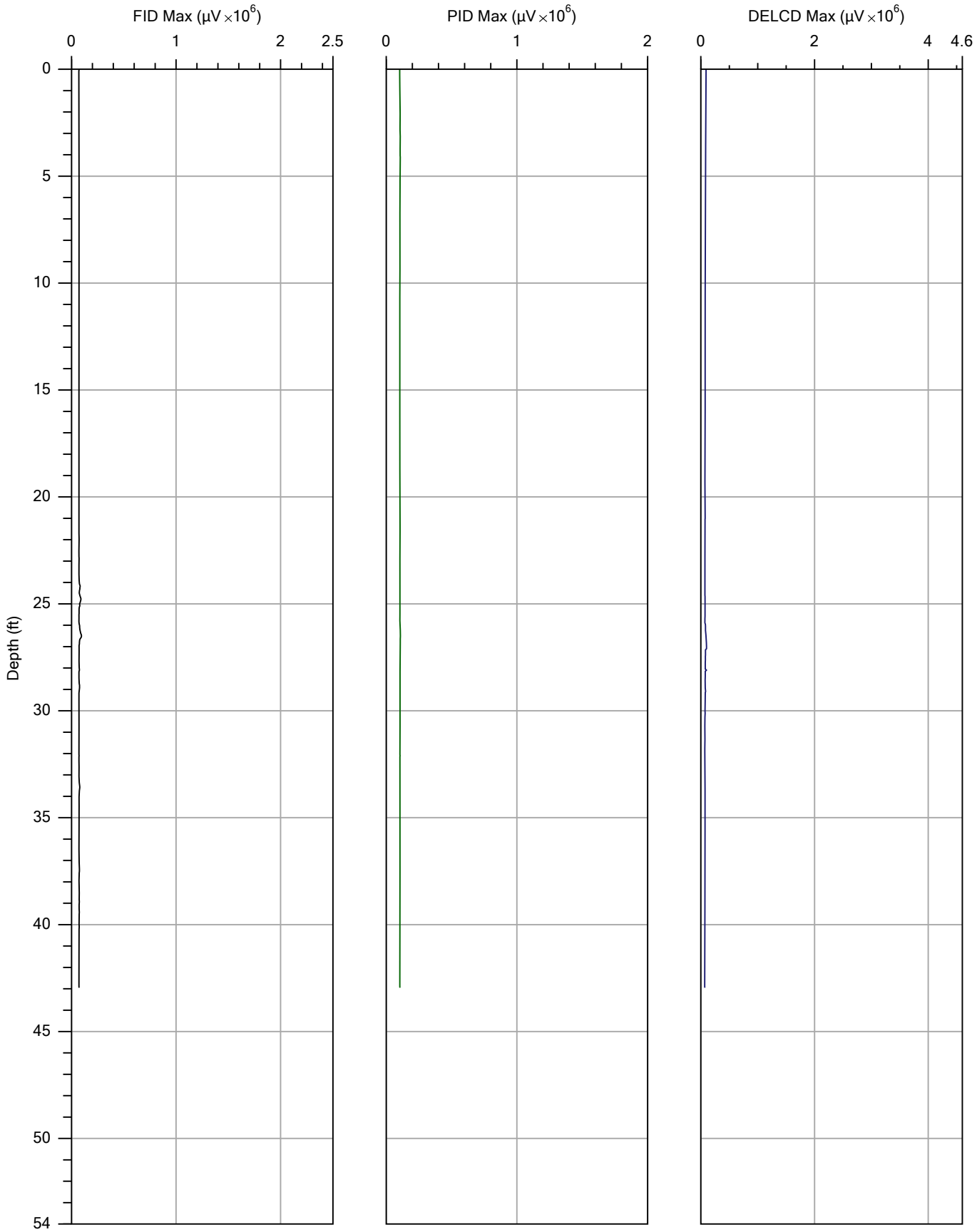
Job Number	04-1913-0010	CPT Number	18CPT14	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	04-Mar-2013 15:45:13	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



		File: 18MIP14.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 3/4/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

AECOM

Client: USACE			BORING ID: 18CPT MW 15
Project Number: 60274185			
Site Location: LHAAP SITE 18/24			
Coordinates:	Elevation:		Sheet: 1 of 2
Drilling Method: HSA			Monitoring Well Installed: YES
Sample Type(s): NA	Boring Diameter: 10 1/4"		Screened Interval: 15.8 - 35.3'
Weather: CLOUDY, 40's, DRIZZLE	Logged By: NA	Date/Time Started: 4/3/13	Depth of Boring: 36'
Drilling Contractor: ETR	Ground Elevation:	Date/Time Finished:	Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1							FOR LITHOLOGY DESCRIPTION SEE CPT LOG		
2									
3							TYPE I/II PORTLAND CEMENT AND BENTONITE GROUT		
4							10 1/4" BOREHOLE		
5									
6									
7							4" DIAM. SCH 40 PVC CASING		
8									
9									
10							3/8" BENTONITE PELLETS		9.0
11									
12									
13									12.5'
14							20/40 SILICA SAND		
15									
16									15.8
17							0.01" SLOTTED 4" DIAM. SCH 40 PVC ~~CASING~~ SCREEN		
18									
19									
20									

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by Date:

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP Site 18/24
Coordinates:	Elevation:
Drilling Method:	
Sample Type(s):	Boring Diameter:
Weather:	Logged By: / Date/Time Started:
Drilling Contractor:	Ground Elevation: / Date/Time Finished:

BORING ID: 18 CPT MW 15

Sheet: 2 of 2

Monitoring Well Installed:

Screened Interval:

Depth of Boring:

Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
20									
1							10 1/4" BOREHOLE		
2									
3							20/40 SILICA SAND		
4									
5									
6							0.01" SLOTTED 4" DIAM. SCH. 40 PVC SCREEN		
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									35.3'
17									35.8'
18									TD=36
19									
20									

NOTES:

Date	Time	Depth to groundwater while drilling

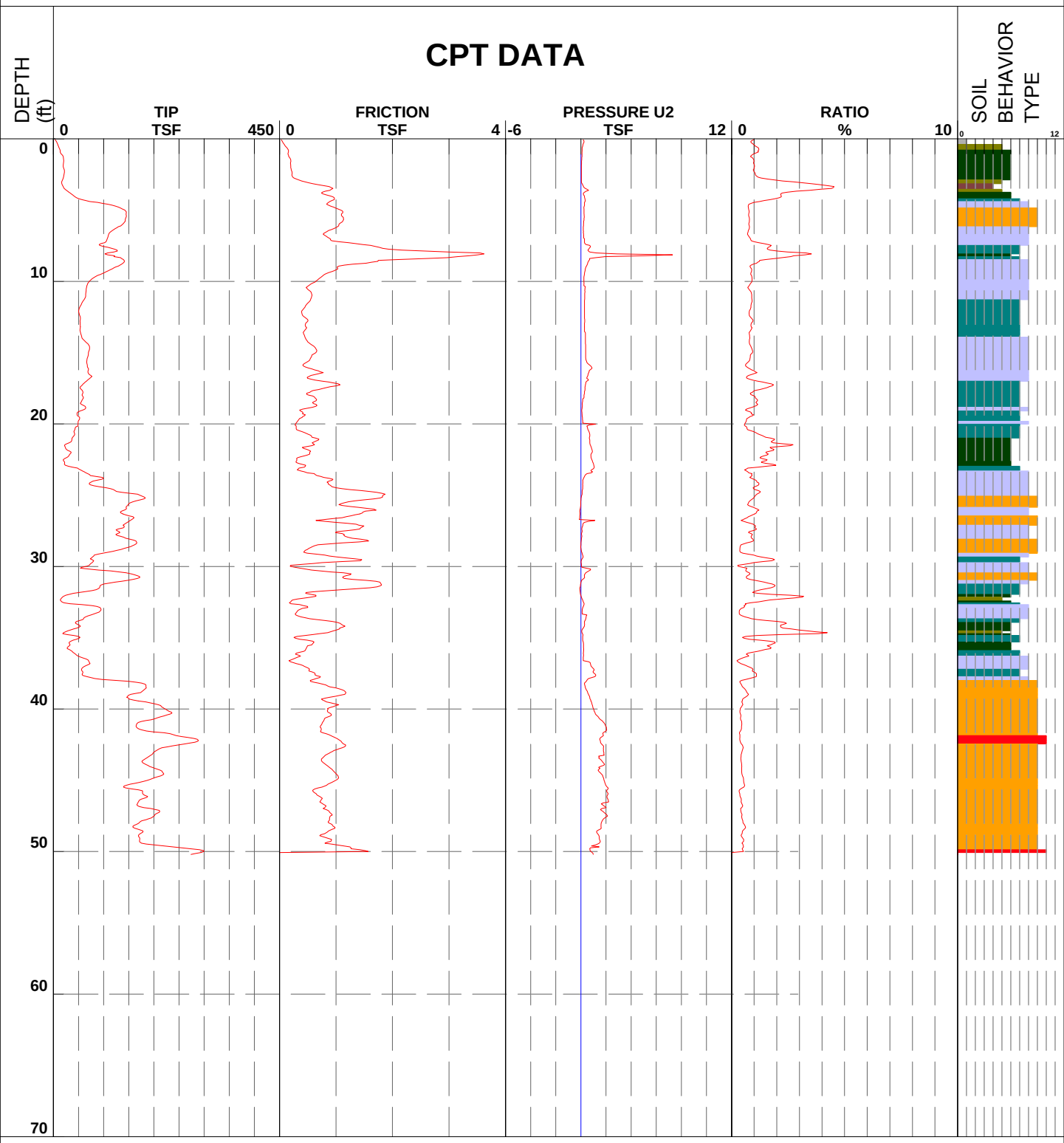
Checked by

Date:

00122723

Job Number	04.1913-0010	CPT Number	18CPT15	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	03-Mar-2013 09:27:49	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP SITE 18/24
Coordinates:	Elevation:
Drilling Method:	HSA
Sample Type(s):	5' CORE BARREL
Boring Diameter:	8 1/4" 10 1/4"
Weather:	SUNNY MID 50'S
Logged By:	GH
Date/Time Started:	5/13/13
Drilling Contractor:	ETTL
Ground Elevation:	
Date/Time Finished:	

BORING ID: 18CPT MW 16

Sheet: 1 of 3

Monitoring Well Installed: YES

Screened Interval: 15-34.5

Depth of Boring: 44'

Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1				25%		ML	CLAYEY SILT, MOTTLED YELLOWISH BROWN & LIGHT GRAY, DAMP, MOIST @ 3', MEDIUM STIFF, LOW PLASTICITY		
2									
3				60%			10 1/4" BORE HOLE		
4					0.0		4' SILTY CLAY, LIGHT GRAY & YELLOWISH BROWN, DAMP, MEDIUM STIFF, MEDIUM PLASTICITY		
5									
6				5%	NR	CL			
7							TYPE I/II PORTLAND CEMENT W/ BENTONITE GROUT		7.5'
8					NR		3/8" BENTONITE PELLETS		
9							9' SILTY FINE SAND / FINE SAND, YELLOWISH BROWN W/ LIGHT GRAY MOTTLING, WET		
10					0.0	SM/SP			
11				70%					
12					0.0				
13							4" DIAM. SCH 40 PVC WELL CASING	PVC	13'
14					0.0		14' FINE SAND, BROWN, WET		
15									15'
16				44%	0.0	SP	0.01" SCH 40 PVC SLOTTED SCREEN		
17									
18					NR		20/40 SILICA SAND		
19							19' OLIVE GRAY		
20									

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date:

AECOM

Client: USACE			BORING ID: 18CPT MW 16
Project Number:			
Site Location:			
Coordinates:	Elevation:		Sheet: 2 of 2
Drilling Method:			Monitoring Well Installed: 4/55
Sample Type(s):	Boring Diameter:		Screened Interval:
Weather:	Logged By:	Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
20									
					0.0				
1							10'/4" BORE HOLE		
2				70%	0.0	SP			
3							20/40 SILICA SAND		
4					0.0				
5						ML	25' SILT OLIVE GRAY, MOIST, MEDIUM STIFF, LOW PLASTICITY		
6				60%	0.0		25.5 SILTY FINE SAND, OLIVE GRAY, WET		
7									
8					NR				
9						SP	0.01" SCH. 40 PVC SLOTTED SCREEN		
30					0.0				
11									
12				70%	0.0				
13									
14									
15					0.0	SP	34' FINE SAND, GRAY, WET, w/ OCCASIONAL ORGANIC MATERIAL		34.5
16							COLLAPSED HOLE		35.0
17				65%	0.0		36.5' LIGNITE MATERIAL, DARK GRAY, DAMP		
18					NR	SP	37' FINE SAND, GRAY, WET		
19									
40							39' MEDIUM SAND, GRAY, WET, w/ OCCASIONAL ORGANIC MATERIAL		

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by Date:

AECOM

Client: USACE			BORING ID: 18CPT MW 16
Project Number:			
Site Location:			
Coordinates:	Elevation:		Sheet: 3 of 3
Drilling Method:			Monitoring Well Installed: Yes
Sample Type(s):	Boring Diameter:		Screened Interval:
Weather:	Logged By:	Date/Time Started:	Depth of Boring:
Drilling Contractor:	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
40									
					0.0				X X
1									X X
2				65%	0.0	SP			X X
							COLLAPSED HOLE		X X
3									X
4					NR				X X
									X X
5							TD=44'		
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
60									

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by Date:

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP-18/24
Coordinates:	Elevation:
Drilling Method:	GEOPROBE
Sample Type(s):	5' CORE BARREL
Boring Diameter:	2"
Weather:	
Logged By:	JG
Date/Time Started:	3/20/13
Drilling Contractor:	ETTL
Ground Elevation:	
Date/Time Finished:	

BORING ID: 18 CPT 17

Sheet: 1 of 3
Monitoring Well Installed: No
Screened Interval: NA
Depth of Boring: 50'
Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1							SILTY CLAY, YELLOWISH BROWN TO BROWN, DAMP, SOFT		
2				95%					
3						CL	3' LIGHT GRAY & REDDISH BROWN, MOIST, STIFF		
4									
5									
6									
7									
8				95%					
9						ML	8' SANDY SILT W/CLAY, REDDISH BROWN, MOIST		
10							8.6' SILTY CLAY, LIGHT GRAY & REDDISH BROWN MOIST, STIFF		
11						CL			
12									
13				95%			12.0' SOFT-STIFF		
14									
15									
16							15.0' SILTY FINE SAND, REDDISH BROWN, MOIST		
17						SM			
18				100%					
19									
20									

NOTES: HAND PUNCH SAMPLES OBTAINED ON 3/21/13 AND 3/22/13 FROM SEPARATE BOREHOLES

Date	Time	Depth to groundwater while drilling

Checked by

Date:

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP - 18/24
Coordinates:	Elevation:
Drilling Method:	
Sample Type(s):	Boring Diameter:
Weather:	Logged By: / Date/Time Started:
Drilling Contractor:	Ground Elevation: / Date/Time Finished:

BORING ID: 18CPT 17

Sheet: 2 of 3
Monitoring Well Installed: No
Screened Interval:
Depth of Boring:
Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
20									
1						SM	20' LIGHT GRAY TO REDDISH BROWN		
2				100%					
3							23' CLAY, LIGHT GRAY AND REDDISH BROWN, MOIST-WET, STIFF, INTERBEDDED W/ SILT		
4									
5									
6									
7				100%					
8									
9						CL			
30									
11		HYDROPUNCH SAMPLE 30-34' @0800 3/22/13							
12				100%			32' SILTY CLAY, LIGHT GRAY AND ORANGE BROWN, WET, SOFT		
13									
14									
15							34' MOIST, STIFF		
16									
17				100%					
18									
19							39' PREDOMINATELY LIGHT GRAY		
40									

NOTES: HYDROPUNCH SAMPLES OBTAINED FROM SEPARATE ADJACENT BORE HOLE.

Date	Time	Depth to groundwater while drilling

Checked by

Date:

AECOM

Client: USACE	BORING ID: 18CPT 17
Project Number: 60274185	
Site Location:	
Coordinates: Elevation:	Sheet: 3 of 3
Drilling Method:	Monitoring Well Installed: N/O
Sample Type(s): Boring Diameter:	Screened Interval:
Weather: Logged By: Date/Time Started:	Depth of Boring:
Drilling Contractor: Ground Elevation: Date/Time Finished:	Water Level:

40

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1									
2				100%					
3						CL			
4									
5									
6		HYDROPUNCH SAMPLE 45-49' @ 1400 3/21/13							
7				70%			47.5' SILTY FINE SAND W/ THIN LAYERS OF CLAY, DARK GRAY, MOIST-WET		
8									
9						SM			
50									
11							TD = 50'		
12									
13									
14									
15									
16									
17									
18									
19									
20									

NOTES: GROUT TREMIED DOWN HOLE TO 37' BELOW GROUND SURFACE

Date	Time	Depth to groundwater while drilling

Checked by Date:

18CPTMW18

AECOM

Client: USACE
Project Number: 60274185
Site Location: LHAAP SITE 18/24
Coordinates: Elevation:
Drilling Method: GEOPROBE, HSA
Sample Type(s): 5' PUSH BARREL
Boring Diameter: 2", 10 1/4"
Weather:
Logged By: JG
Date/Time Started: 4/17/13
Drilling Contractor: ETR
Ground Elevation:
Date/Time Finished:

BORING ID: ~~MW~~ ~~18CPT-18~~
Sheet: 1 of 2
Monitoring Well Installed: YES
Screened Interval: 24.7-34.2
Depth of Boring: 50'
Water Level: N/A

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1							SILTY CLAY, ORANGE-BROWN, MOIST SOFT		
2							10 1/4" BORE HOLE		
				100%	0.0				
3							3.0' LIGHT GRAY-REDDISH BROWN, STIFF		
4									
5							4" DIAM. SCH. 40 PVC WELL CASING		
6						CL			
7				100%	0.0		6.5' LIGHT GRAY W/ YELLOWISH BROWN MOTTLING, TRACES OF LIGNITE		
8									
9									
10							TYPE I/II PORTLAND CEMENT & BENTONITE GROUT		
11									
12				100%	0.0	~~SM~~	12.0' FINE SAND LAMINATIONS		
13									
14							14.0' MOIST, STIFF		
15									
16									
17				100%	0.0	SM	16.0' SILTY FINE SAND, LIGHT GRAY TO YELLOWISH BROWN, MOIST		
18						CL	17.5-17.8 CLAY LAYER		
19						SM			
20						CL	19.0' SILTY CLAY, LIGHT GRAY W/ YELLOWISH BROWN MOTTLING, MOIST, STIFF		

19.4

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by Date:

18CPTMW18

AECOM

Client: USACE
Project Number:
Site Location:
Coordinates: Elevation:
Drilling Method:
Sample Type(s): Boring Diameter:
Weather: Logged By: Date/Time Started:
Drilling Contractor: Ground Elevation: Date/Time Finished:

BORING ID: ~~18CPT-18~~
Sheet: 2 of 3
Monitoring Well Installed:
Screened Interval:
Depth of Boring:
Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
20									
1						CL	3/8" BENTONITE PELLETS		
2							22.0-22.5 WET		
				100%	0.0				
3						SP	22.5' FINE SAND, YELLOWISH BROWN, MOIST - WET		22.8
						CL	23.0' SILTY CLAY, LIGHT GRAY WITH YELLOWISH BROWN MOTTLING, MOIST, STIFF		
4						SM	23.5' SILTY FINE SAND W/CLAY, YELLOWISH BROWN, MOIST-WET	29/40 SILICA SAND	24.7
5						CL			
6						SM	24.5' SILTY CLAY W/ FINE SAND, LIGHT GRAY W/ ORANGE BROWN MOTTLING, MOIST MEDIUM STIFF		
7									
8				100%	0.0	CL	25' SILTY FINE SAND W/CLAY, LIGHT GRAY W/ORANGE BROWN MOTTLING, WET		
9							26.5' SILTY CLAY, LIGHT GRAY ORANGE BROWN MOTTLING, MOIST, MEDIUM STIFF		
30								0.01" SCH. 40 PVC SLOTTED SCREEN	
11		HYDRO PUNCH SAMPLE 31-35' 3/20/13				SM	30.5' SILTY FINE SAND, LIGHT GRAY - ORANGE BROWN MOTTLING, WET		
12				100%	0.0				
13									
14							34.0' FINE SAND, ORANGE BROWN, MOIST		
15						SP	34.5' SILTY CLAY, LIGHT GRAY & ORANGE BROWN MOTTLING, MOIST, STIFF		34.2 34.7
16							35.0' GRAY & REDDISH BROWN MOTTLING		TD=35
17									
				100%	0.0	CL			
18								BENTONITE GROUT FOR GEOPROBE & HYDRO PUNCH HOLES	
19									
40									

NOTES: CONSTRUCTION WELL ON 4/17/13 THROUGH SEPARATE BOREHOLE ~ 5 FEET FROM GEOPROBE HOLE & HYDROPUNCH HOLES. BOREHOLES WERE BACKFILLED W/ BENTONITE GROUT W/ THREAD PIPE

Date	Time	Depth to groundwater while drilling

Checked by: OAC 3/21/13 Date:

18CPTMW18

AECOM

Client:	USACE
Project Number:	
Site Location:	
Coordinates:	Elevation:
Drilling Method:	
Sample Type(s):	Boring Diameter:
Weather:	Logged By:
Drilling Contractor:	Ground Elevation:
Date/Time Started:	
Date/Time Finished:	
BORING ID:	~~18CPT-18~~
Sheet:	3 of 3
Monitoring Well Installed:	
Screened Interval:	
Depth of Boring:	
Water Level:	

40

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1							41.0' SILTY FINE SAND, LIGHT GRAY & ORANGE BROWN MOTTLING, MOIST, WET		X
2									X
3				100%	0.0	SM			X
4		HYDROPUNCH 44-48' 3/20/13			SAMPLE		44.0' FINE TO MEDIUM SAND, YELLOWISH BROWN		X
5									
6									X
7					0.0	SP	BENTONITE GROUT		X
8				100%					X
9									X
10									X
11							TD 50		
12									
13									
14									
15									
16									
17									
18									
19									
20									

NOTES: HYDROPUNCH SAMPLES OBTAINED THROUGH SEPARATE BORE HOLES ~ 5 FEET FROM LOGGED HOLE.

Date	Time	Depth to groundwater while drilling

Checked by

Date:

00122733

18CPTMW19

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP 18/24
Coordinates:	Elevation:
Drilling Method:	GEOPROBE
Sample Type(s):	5' CORE BARREL
Boring Diameter:	2"
Weather:	COOL & RAINY
Logged By:	JG
Date/Time Started:	3/22/13
Drilling Contractor:	ETTL
Ground Elevation:	
Date/Time Finished:	

BORING ID: ~~18 CPT-19~~

Sheet: 1 of 2

Monitoring Well Installed: YES

Screened Interval: 23.5-33.0

Depth of Boring: 34'

Water Level: N/A

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample Depth (ft)~~ WELL CONSTRUCTION
1						CL	SILTY CLAY, YELLOWISH BROWN & RED, MOIST, MEDIUM STIFF		
2				100%			2' CLAY, LIGHT GRAY & RED, MOIST, STIFF		
3									
4							3.5' CLAYEY SILT, LIGHT GRAY & ORANGE BROWN, MOIST, FEW ORGANICS		
5									
6						ML	8 1/4" BOREHOLE		
7				100%			6.5' WET (3-INCH) 4" DIAM. SCH 40 PVC WELL CASING		
8							7.2' WET (3-INCH)		
9						SM	8.5' SILTY FINE SAND, LIGHT GRAY & YELLOWISH BROWN, MOIST		
10									
11						ML	10.0' FINE SANDY SILT, YELLOWISH BROWN, MOIST		
12		HYDRO PUNCH SAMPLE 3/19/13 DRY 11-15'		95%		SM	10.5' SILT, YELLOWISH WHITE, MOIST		
13							11.0' SILTY FINE SAND, MOIST		
14							TYPE I/II PORTLAND CEMENT & BENTONITE GROUT		
15						CL	14.5' SILTY CLAY W/ SAND, LIGHT GRAY & YELLOWISH BROWN, ORANGE MOTTLING		
16		HYDRO PUNCH SAMPLE 3/19/13 DRY 15-19'		95%		SM	15' SILTY FINE SAND, ORANGE MOTTLING, MOIST		
17									
18									
19							BENTONITE		18.5
20									

NOTES: HYDRO PUNCH SAMPLES OBTAINED ON 3/19/13 IN SEPARATE BOREHOLE. BOREHOLE WERE BACKFILLED W/ BENTONITE GROUT THROUGH TO 30' BGS. MONITORING WELL WAS CONSTRUCTED IN SEPARATE BOREHOLE ON 4/4/13 W/ 10 1/4" HSA

Date	Time	Depth to groundwater while drilling

Checked by

Date:

00122734

18CPTMW19

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP - 18/24
Coordinates:	Elevation:
Drilling Method:	
Sample Type(s):	Boring Diameter:
Weather:	Logged By: JG
Drilling Contractor:	Ground Elevation:

BORING ID:	18CPT-19
Sheet:	2 of 2
Monitoring Well Installed:	
Screened Interval:	
Date/Time Started:	
Depth of Boring:	
Date/Time Finished:	
Water Level:	

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
20									
1							20' SILTY CLAY, LIGHT GRAY, YELLOWISH BROWN & ORANGE MOTTLING, MOIST, STIFF, FEW ORGANICS		
2				85%					21.5
3						CL	20/40 SILICA SAND		
4									23.5
5							24-25' MOIST TO WET — 0.01" SLOT SCH. 40 PVC 4" DIAM. SCREEN		
6							26' CLAY, LIGHT GRAY & YELLOWISH BROWN W/ ORANGE MOTTLING, MOIST, STIFF TO VERY STIFF		
7				75%					
8						CL			
9									
10									
11		HYDRO PUNCH SAMPLE 30-34' 3/22/13 @ 1130 VOCs & Perchlorate				SM	30' SILTY FINE SAND, YELLOWISH BROWN, WET		
12									
13				65%		CL	32' SILTY CLAY, LIGHT GRAY & ORANGE BROWN, MOIST-WET, STIFF		33.0
14								SLOUGH	33.5
15						CL	34' CLAY, LIGHT GRAY & ORANGE BROWN MOIST, STIFF		34.0
16							GEOPROBE TD = 35'		
17									
18									
19									
20									

NOTES:

Date	Time	Depth to groundwater while drilling

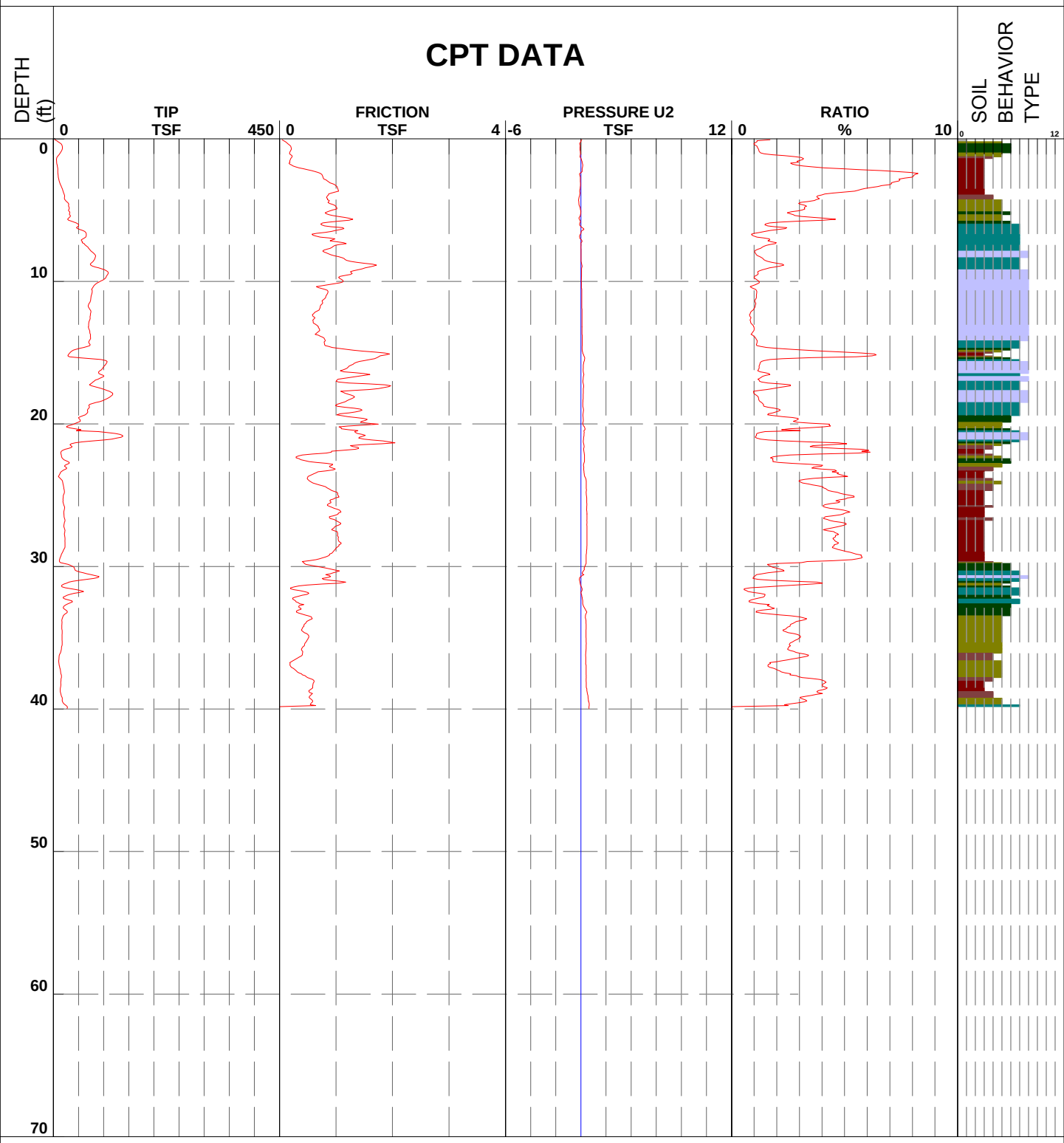
Checked by

Date:

00122735

Job Number	04.1913-0010	CPT Number	18CPT19	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	03-Mar-2013 11:34:53	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented

AECOM

Client: USACE 3-29-13			BORING ID: 18CPT20
Project Number:			
Site Location: LHAAP - 18/24			
Coordinates:	Elevation:		Sheet: 1 of 1
Drilling Method: Geoprobe 6600			Monitoring Well Installed:
Sample Type(s): Grab	Boring Diameter: 2"		Screened Interval:
Weather: Clear	Logged By: [illegible]	Date/Time Started:	Depth of Boring: 35'
Drilling Contractor: EPTL	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
							Discontinuous Sampling		
1–5				75%		CL	5-7.5 - Silty Clay, Lt. grey and orange mottling, Damp - wet, Med. Stiff		
5–7	7-8	X	@ 0845		13.4	CL	7.5-9 - Silty Clay, Lt. grey w/ orange mottling, moist, Med. Stiff		
7–10						Sm	9-10 - ~~Clayey~~ Sandy Silt, Lt. grey orange mottling, Damp - wet.		
							Discontinuous Sampling		
11–15				75%		SP	15-20 - Fine Sand, poorly graded, Lt. grey yellowish brown mottling, wet ~ 19-20 organics present (lignite)		
13–14	16-17	X	@ 0915		18.1				
							Discontinuous Sampling		
15–17	32-33	X	@ 1005		11.2	SP	30-32 - fine Sand, Lt. ~~Greenish Grey~~ grey w/ yellowish brown mottling, wet. lignite present Poorly graded.		
18						CL	32-34 - Silty Clay, Lt. grey (Greenish Grey), Stiff, moist		
19–20						SP	34-35 - fine Sand, Lt. Greenish Gray, wet, poorly graded		

NOTES: TD = 35'

Date	Time	Depth to groundwater while drilling

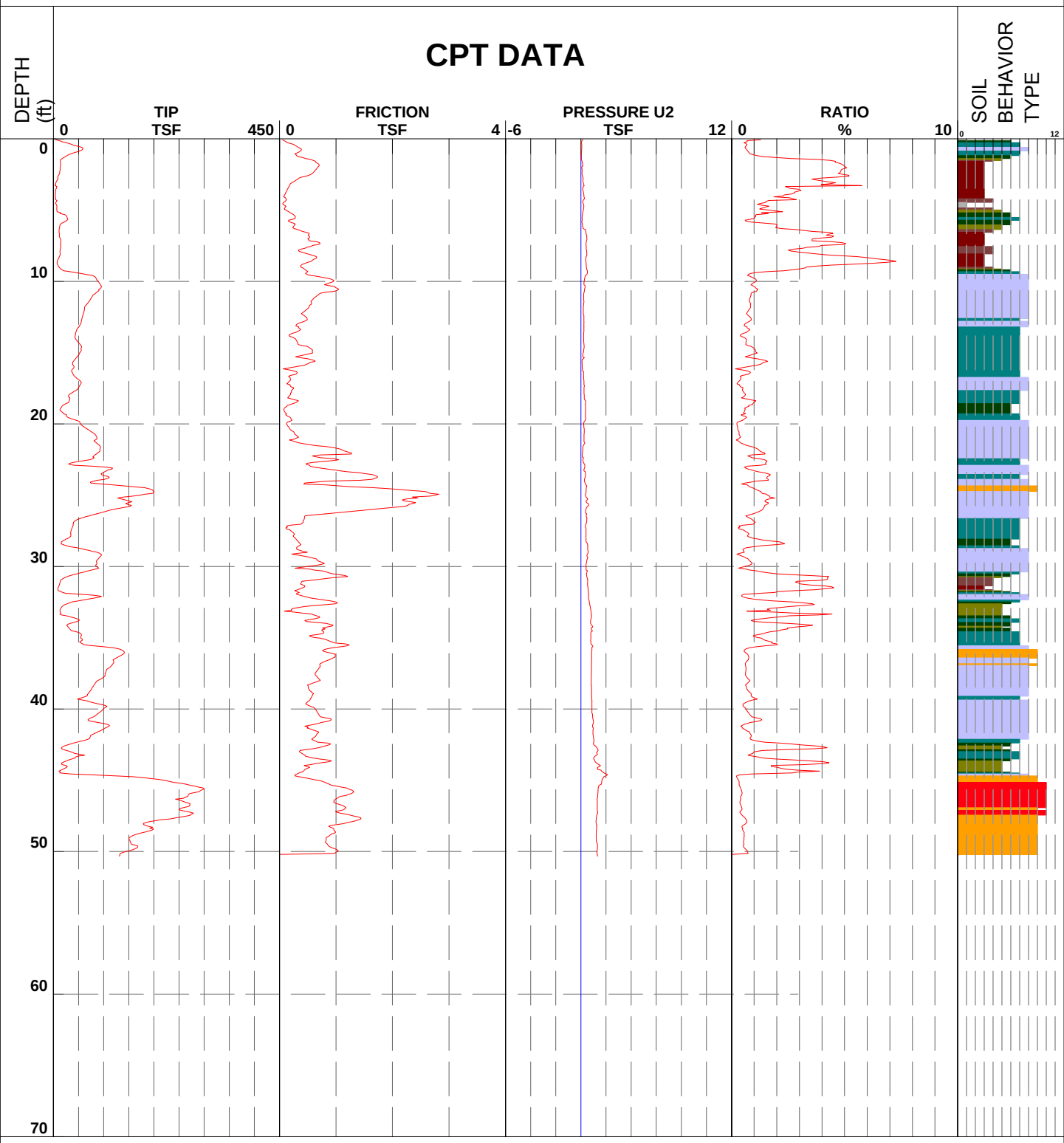
Checked by

Date: 3-29-13

00122737

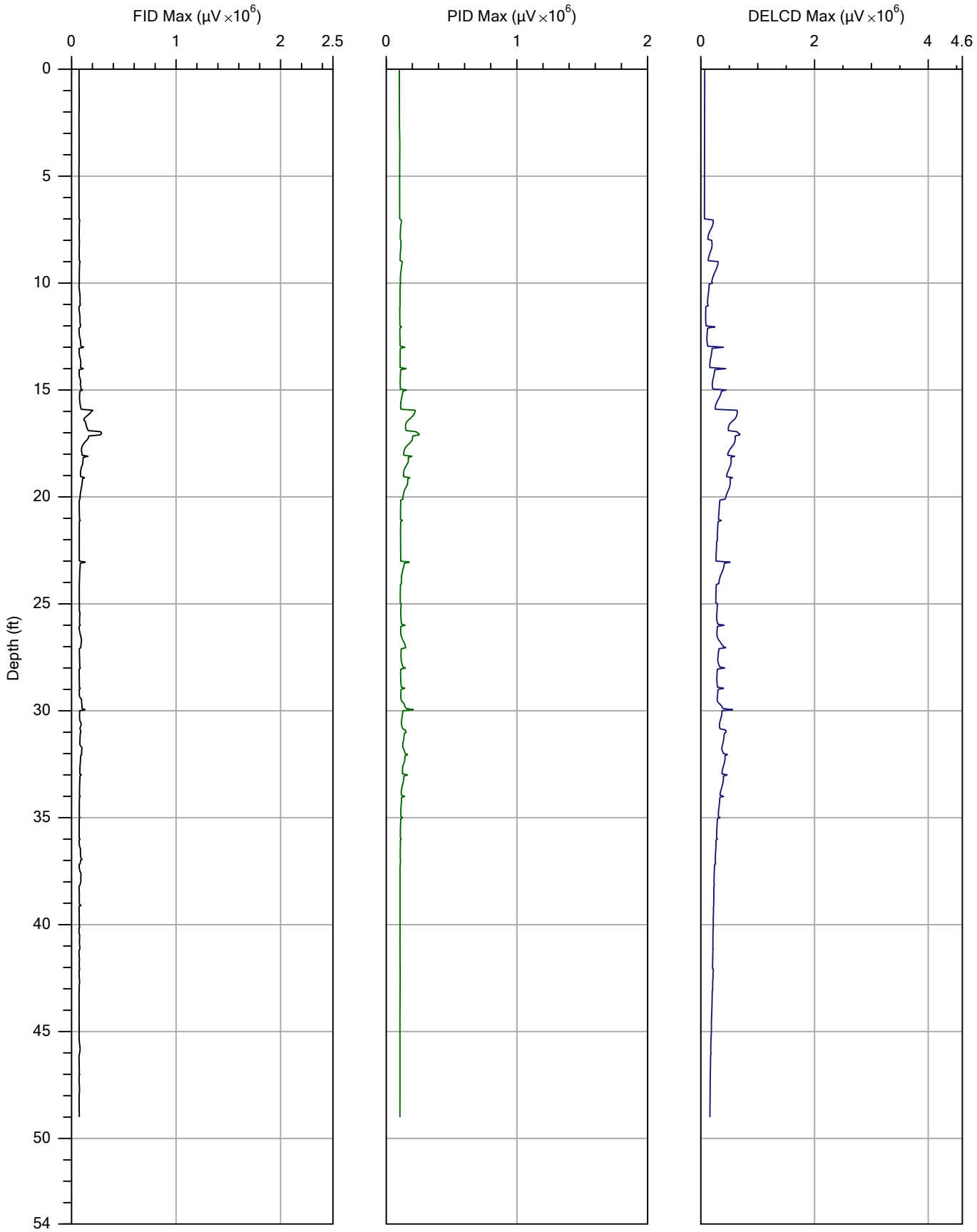
Job Number	04.1913-0010	CPT Number	18CPT20	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	02-Mar-2013 08:14:09	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



		File: 18MIP20.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 3/2/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

AECOM

Client:	USACE
Project Number:	
Site Location:	LHAAP - 18/24
Coordinates:	Elevation:
Drilling Method:	Geoprobe 6610
Sample Type(s):	GW6
Boring Diameter:	2"
BORING ID:	18CPT 21
Sheet:	1 of 2
Monitoring Well Installed:	
Screened Interval:	
Weather:	Clear
Logged By:	M
Date/Time Started:	3-28-13
Depth of Boring:	50
Drilling Contractor:	ETTL
Ground Elevation:	
Date/Time Finished:	
Water Level:	

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
							Discontinuous Sampling		
1				100%		CL	15 - 18 - Silty Clay, Lt. grey and yellowish brown, moist, stiff		
2									
3	16-17		@ 0820		103				
4						Sm	18 - ~~18.5~~ 19 - Silty fine sand, Lt. grey, and yellowish brown, moist.		
5									
6									
7									
8						CL	~~18.5~~ 19 - 20 - Silty clay, Lt. grey, and yellowish brown, moist, stiff		
9									
10							Discontinuous Sampling		
11				85%					
12						ML	25 - 25.5 - Clayey silt, Lt. grey and yellowish brown, moist		
13									
14									
15						Sm	25.5 - 26 - Silty fine sand, lt. grey and yellowish brown, moist		
16									
17						CL	26 - 27.5 - Silty Clay, Lt. grey and yellowish brown, moist, med. stiff.		
18	27-28		@ 0840		602				
19						Sm	27.5 - 28 - Silty fine sand, yellowish brown, moist		
20									

NOTES: GW6 Sampled 18CPT21 (29-33) - DRY
18CPT21 (24-28) - 1310
18CPT21 (48-52) - DRY
Grouted/Abandoned using tremie @ 28' - Shallow - Deep tremie @ 39' Different Borehole

Date	Time	Depth to groundwater while drilling

Checked by

Date: 3-28-13

AECOM

Client: USACE			BORING ID: 18CPT 21
Project Number:			
Site Location: LHAAP 17/24			
Coordinates:	Elevation:		Sheet: 2 of 2
Drilling Method: Geoprobe 6600			Monitoring Well Installed:
Sample Type(s):	Boring Diameter: 2"		Screened Interval:
Weather: Clear	Logged By:	Date/Time Started: 3 28 13	Depth of Boring: 50
Drilling Contractor: ETTL	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1						CL	28 - 29.5 - Silty Clay, lt. grey and yellowish brown, moist, med soft to stiff		
2									
3									
4						SP	29.5 - 30 - fine Sand, yellowish brown, moist, poorly graded		
5									
6									
7							Discontinuous Sampling		
8				90%		SM	45 - 46.5 - Silty fine Sand, poorly graded, Lt. grey and yellowish brown, wet		
9									
10									
11						TL	46.5 - 47 - Silty clay w/ Sand, moist - wet, stiff		
12									
13									
14						SM	47-48 Silty Sand, Poorly graded, wet yellowish brown,		
15									
16	48-49	X	@ 0925		1540	SM	48-49 - Silty Sand w/ clay, fine grained Sand, poorly graded, moist-wet.		
17									
18						CL	49-50 - Silty Clay, Lt. grey, and yellowish brown, moist, stiff.		
19									
20									

NOTES: Duplicate taken at (48 - 49)

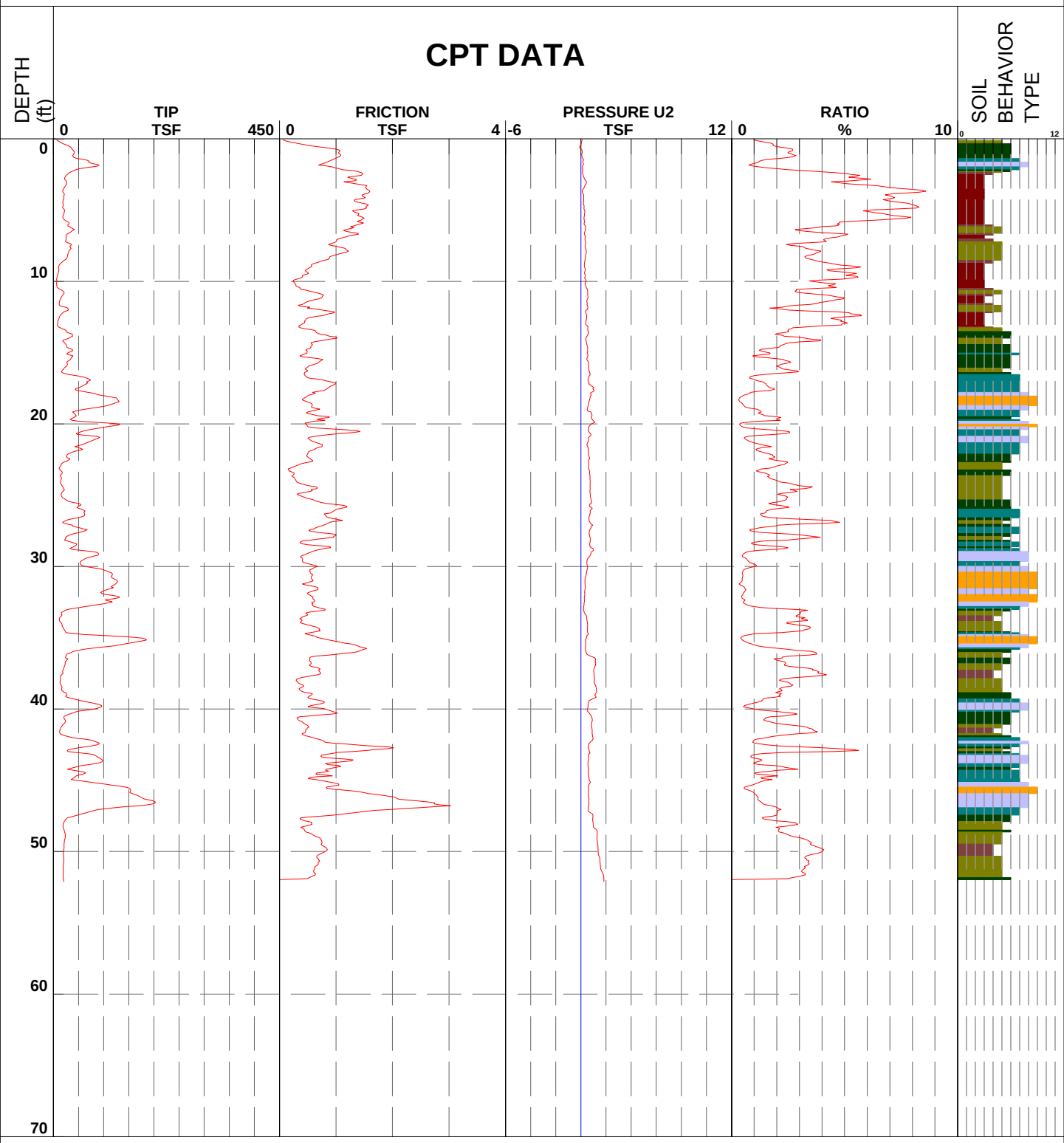
Date	Time	Depth to groundwater while drilling

Checked by

Date. 3-28-13

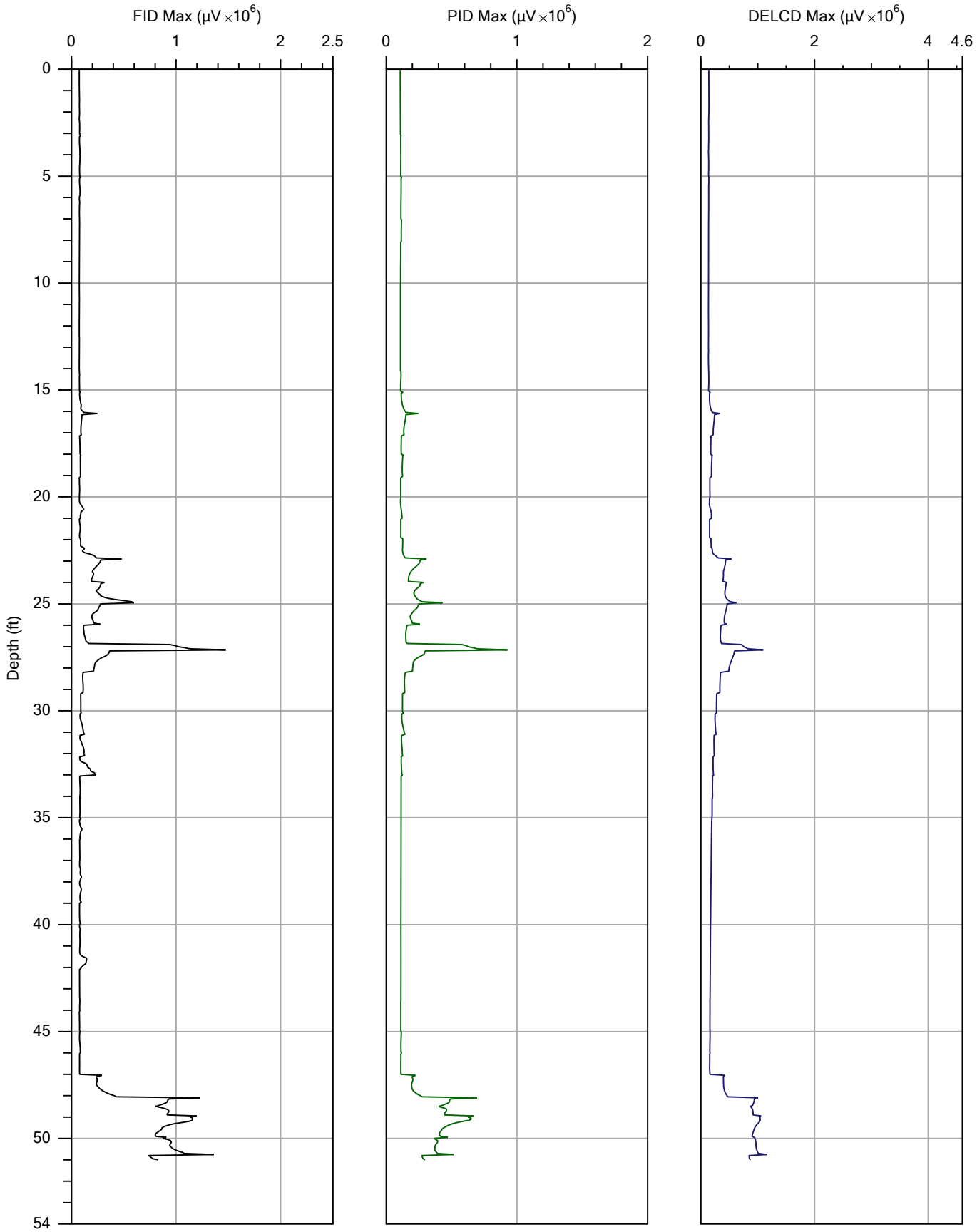
00122741

Job Number	04-1913-0010	CPT Number	18CPT21	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T 02-Mar-2013	13:51:26	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



		File: 18MIP21.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 3/2/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

AECOM

Client: USACE			BORING ID: 18CPT MW 22
Project Number: 60274185			
Site Location: LHAAP SITE 18/24			
Coordinates:	Elevation:		Sheet: 1 of 2
Drilling Method: HSA			Monitoring Well Installed: YES
Sample Type(s): NA	Boring Diameter: 10 1/4"		Screened Interval: 9-28.5
Weather:	Logged By:	Date/Time Started: 4/2/13	Depth of Boring: 29
Drilling Contractor: ETIL	Ground Elevation:	Date/Time Finished:	Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1							FOR LITHOLOGY DESCRIPTION SEE ~~BORING LOG FOR~~ 18CPT22 ~~MW-22~~ GMB 11/25		
2									
3									
4							TYPE I/II PORTLAND CEMENT W/BENTONITE GROUT		4.0'
5							3/8" BENTONITE PELLETS		
6									
7									7.0'
8							20/40 SILICA SAND		
9									9.0'
10							10 1/4" BOREHOLE		
11									
12									
13									
14									
15							0.01" SCH. 40 PVC SLOTTED SCREEN		
16									
17									
18									
19									
20									

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by Date:

AECOM

Client:	USACE
Project Number:	
Site Location:	
Coordinates:	Elevation:
Drilling Method:	
Sample Type(s):	Boring Diameter:
Weather:	Logged By: / Date/Time Started:
Drilling Contractor:	Ground Elevation: / Date/Time Finished:

BORING ID: 18CPT MW 22

Sheet: 2 of 2

Monitoring Well Installed: YES

Screened Interval: 9-28.5

Depth of Boring: 29

Water Level: N/A

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
20									
1							For Lithology Description		
2							See ~~Boring Log For~~		
3							18CPT22 ~~MW-22~~ 11/25		
4									
5									
6									
7									
8									
9									28.5
30									29'
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

NOTES:

Date	Time	Depth to groundwater while drilling

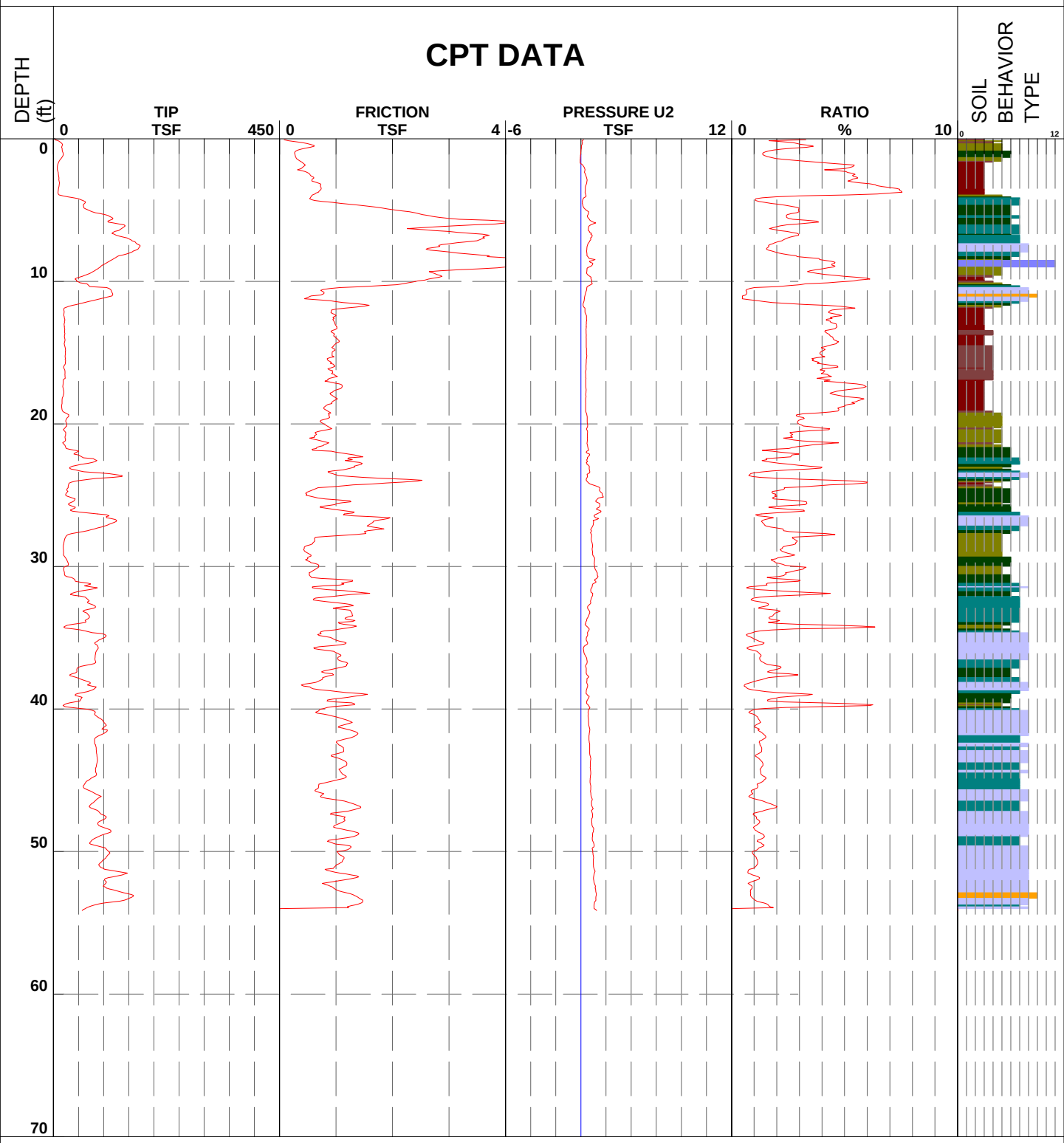
Checked by

Date:

00122745

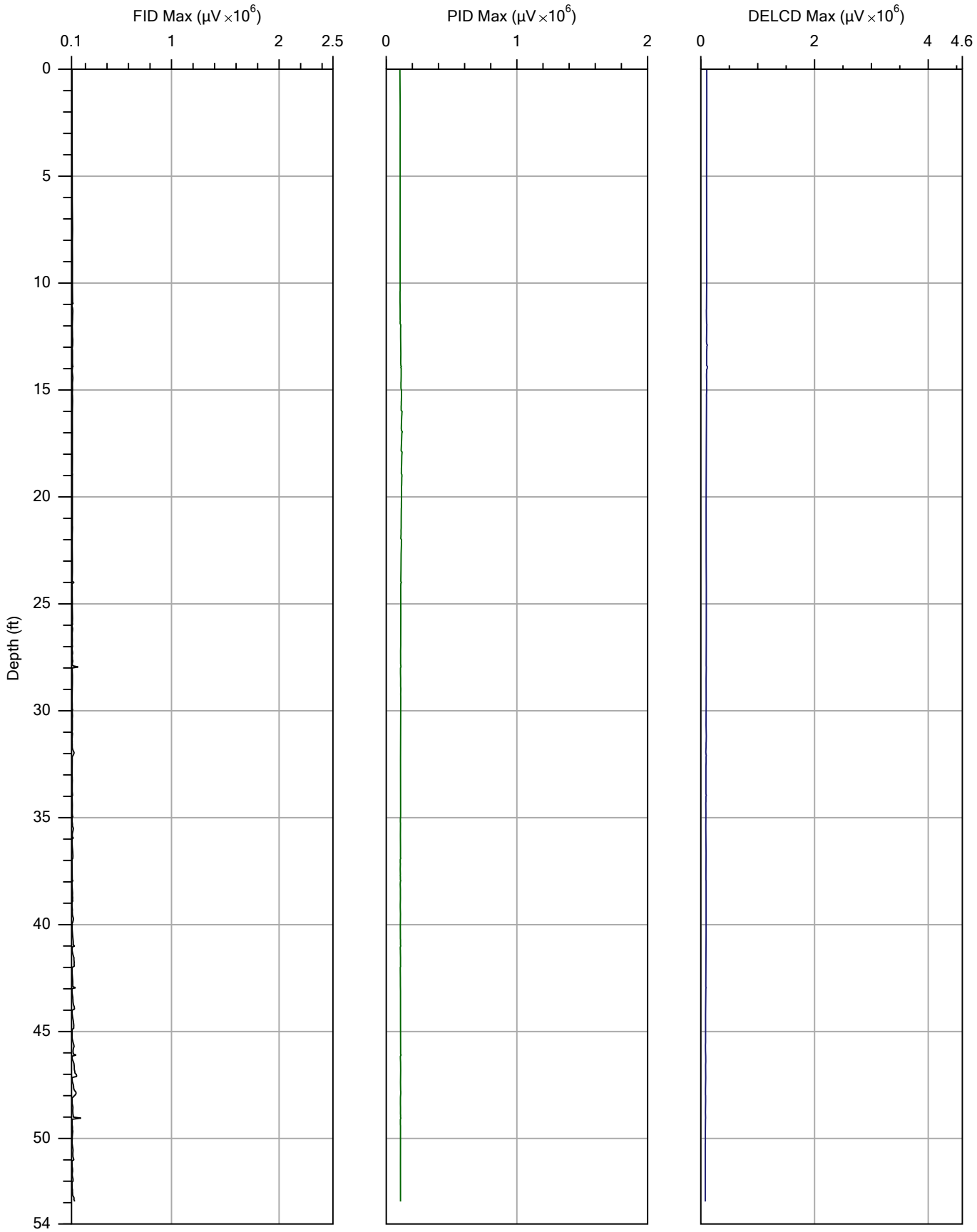
Job Number	04-1913-0010	CPT Number	18CPT22	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	28-Feb-2013 11:19:33	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



		File: 18MIP22.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 2/28/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

00122747

18CPTMW23

AECOM

Client: USACE
Project Number: 60274185
Site Location: LHAAP 18/24
Coordinates: Elevation:
Drilling Method: HSA
Sample Type(s): 5' Core Barrel Boring Diameter: 8 1/4", 10 1/4"
Weather: Sunny 58°F Logged By: GH Date/Time Started: 4/11/13
Drilling Contractor: ETIL Ground Elevation: Date/Time Finished:

BORING ID: ~~18CPT-23~~
Sheet: ~~1 of~~ 1 of 2
Monitoring Well Installed: YES
Screened Interval: 21-30.5
Depth of Boring: 31
Water Level: N/A

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1				75%		ML	CLAYEY SILT, GRAYISH BROWN, DAMP, SOFT		
							0.5 SILTY FINE SAND, MOTTLED YELLOWISH BROWN - REDDISH BROWN & LIGHT GRAY, MOIST		
2						SM			
3				90%			10 1/4" BOREHOLE		
4							4.0'		
5							SILTY FINE SAND, LIGHT GRAY OCCASIONALLY YELLOWISH BROWN, WET		
6	X	GEOTECH 6-7' 1700		70%		SM			
7							4" DIAM. SCH. 40 PVC WELL CASING		
8									
9							9.0' FINE SAND, LIGHT BROWN, WET		
10									
11	X	GEOTECH 11-12' 1730		90%			TYPE I/II PORTLAND CEMENT & BENTONITE GROUT		
12							12.0' LIGHT GRAY		
13						SP			
14									
15									
16	X	GEOTECH 16-17 1745		100%			16.0' INCREASE IN YELLOWISH BROWN STREAKS		15.3
17							3/8" BENTONITE PELLETS		
18						CL	18.0' SANDY CLAY, LIGHT GRAY, MOIST		
19						SP	18.5' FINE-MEDIUM SAND, YELLOWISH BROWN, WET		18.5
20							19.5' SANDY SILT, GRAY, WET 20/40 SILICA SAND		

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by Date:

18CPTMW23

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP - 18/24
Coordinates:	Elevation:
Drilling Method:	
Sample Type(s):	Boring Diameter:
Weather:	Logged By: / Date/Time Started:
Drilling Contractor:	Ground Elevation: / Date/Time Finished:

BORING ID: ~~18 CPT-23~~

Sheet: 2 of 2

Monitoring Well Installed:

Screened Interval:

Depth of Boring:

Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
20									
1							SILTY FINE SAND GRAY w/ OCCASIONAL DARK GRAY STREAKS, WET		
2				40%		SM			21.0
							20/40 SILICA SAND		
3									
4							24.0' FINE TO MEDIUM SAND, GRAY, WET w/ OCCASIONAL DARK GRAY STREAKS		
5	X	GEOTECH 25-26 1820							
6				60%		SP	0.01" SLOTTED SCH. 40 PVC SCREEN		
7									
8									
9							29.0' SILTY FINE SAND, LIGHT GRAY, WET		
10				100%		SM			
11						SP	30.5' FINE TO MEDIUM SAND, GRAY, WET		30.5
12							TD = 31.0'		31
13									
14									
15									
16									
17									
18									
19									
20									

NOTES:

Date	Time	Depth to groundwater while drilling

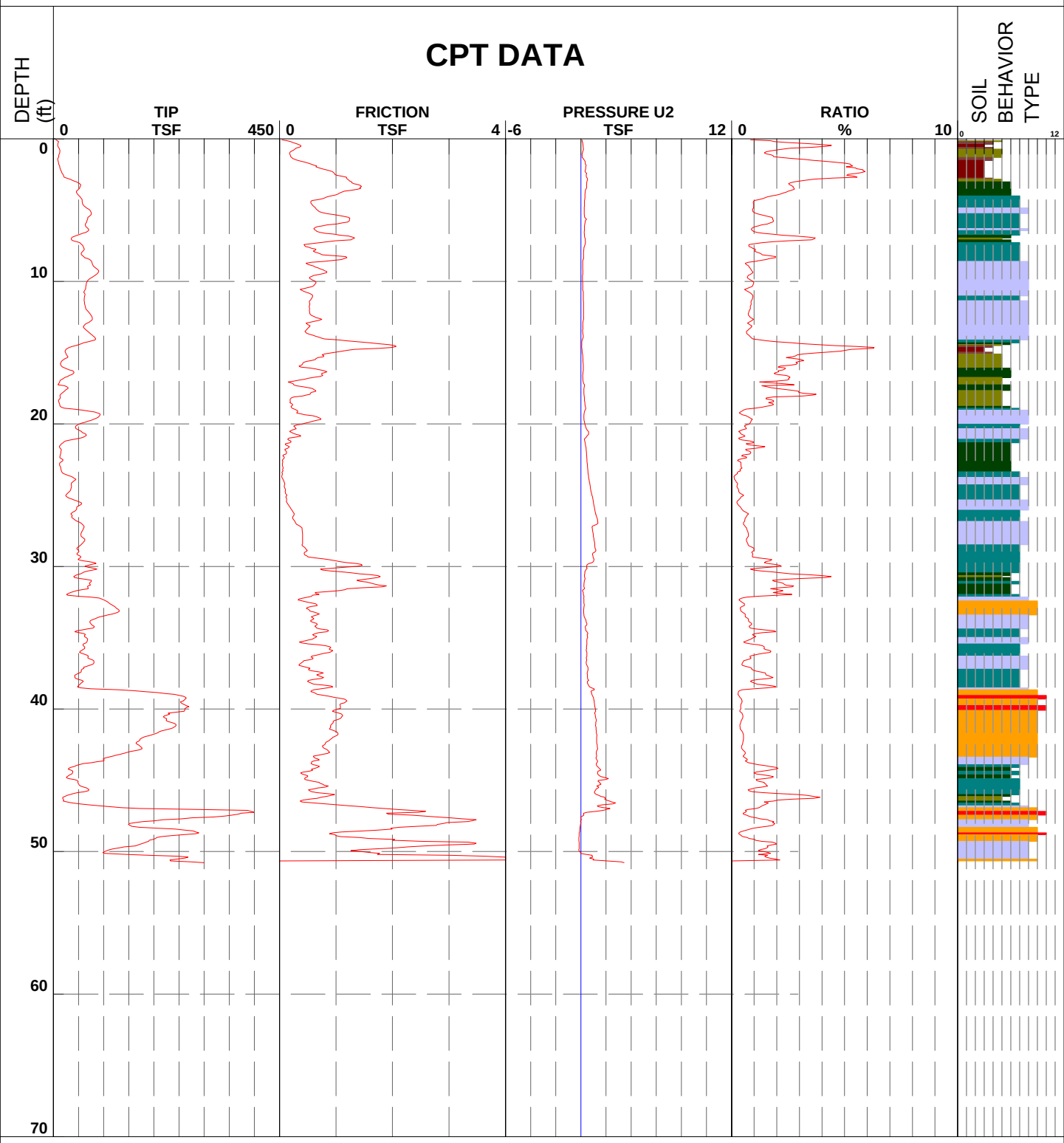
Checked by

Date:

00122749

Job Number	04-1913-0010	CPT Number	18CPT23	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	03-Mar-2013 08:03:37	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

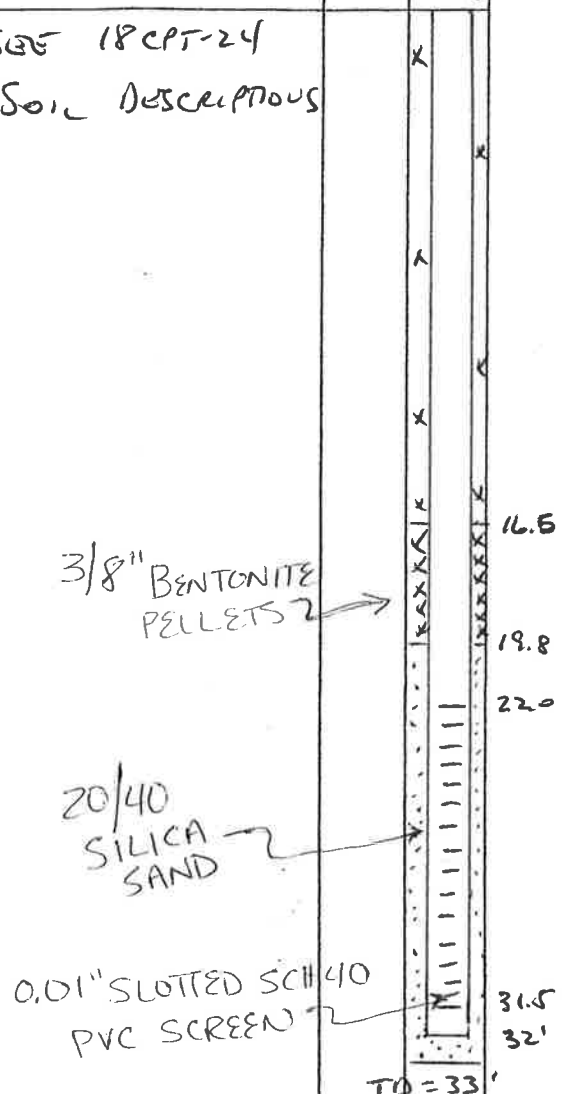
Robertson et al. 1986 * Overconsolidated or Cemented

18CPTMW24

AECOM

Client: USACE		BORING ID: ~~18CPT-24~~
Project Number: 60274185		
Site Location: LHAAP SITE 18/24		
Coordinates:	Elevation:	Sheet: 1 of 1
Drilling Method: HSA		Monitoring Well Installed: YES
Sample Type(s):	Boring Diameter: 10 1/4"	Screened Interval: 22-31.5
Weather: SUNNY & WARM	Logged By: NA / Date/Time Started: 4/15/13	Depth of Boring: 33'
Drilling Contractor: ETTL	Ground Elevation: / Date/Time Finished:	Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	~~Lab Sample Depth (ft.)~~ WELL CONSTRUCTION
1							NOT LOGGED SEE 18CPT-24 CPT LOG FOR SOIL DESCRIPTIONS		
2									
3									
4									
10									
6									
7									
8									
9									
10									
11									
12									
13									
14									
30									
16									
17									
18									
19									
20									



NOTES: MW INSTALLED ~5' FROM CPT BOREHOLE

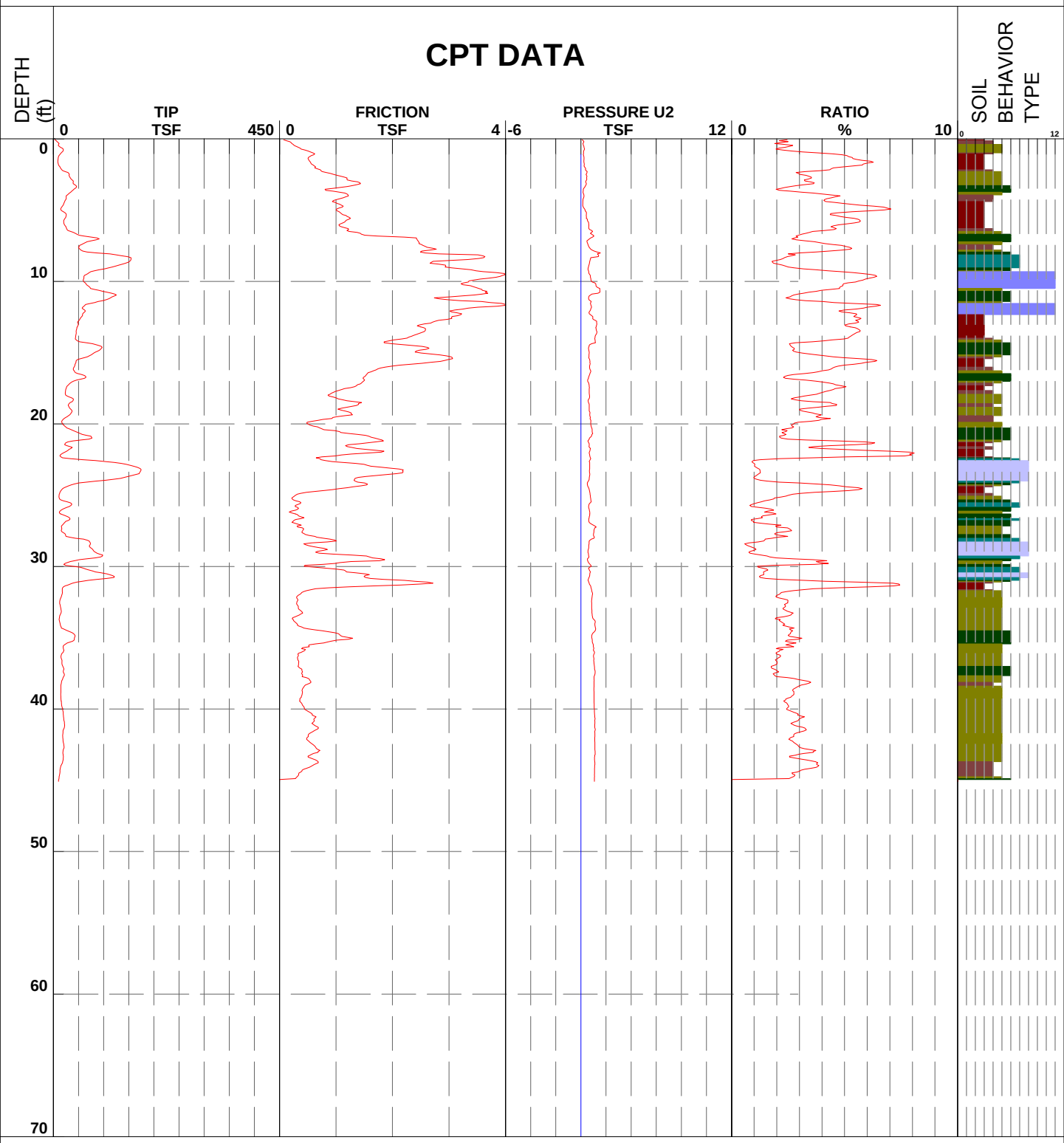
Date	Time	Depth to groundwater while drilling

Checked by Date:

00122751

Job Number	04-1913-0010	CPT Number	18CPT24	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	28-Feb-2013 15:17:51	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented

18CPT25

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP SITE 18/24
Coordinates:	Elevation:
Drilling Method:	GEOPROBE
Sample Type(s):	5' CORE BARREL
Boring Diameter:	2"
Weather:	SUNNY, 50's, WINDY
Logged By:	GH / JG
Date/Time Started:	3/25/13
Drilling Contractor:	ETTL
Ground Elevation:	
Date/Time Finished:	3/26/13

BORING ID: ~~18CPT-285~~ 18CPT25

Sheet: 1 of 1

Monitoring Well Installed: No

Screened Interval:

Depth of Boring: 48'

Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1							NOT SAMPLED 0-15' SEE CPT LOG		
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14		HYDROPUNCH 14-18 DRY			SAMPLE		NO WATER AFTER 1 HR, 3/26/13		
15		18CPT-25 15-16'							
16					17.7	CL	SILTY CLAY, MOTTLED YELLOWISH BROWN & LIGHT GRAY, DAMP, VERY STIFF TO STIFF, MEDIUM PLASTICITY		
17				100%					
18						SC	17.5 SILTY CLAYEY SAND, YELLOWISH BROWN, MOIST		
19						CL	18.0 SILTY CLAY, MOTTLED YELLOWISH BROWN & LIGHT GRAY, VERY STIFF, DAMP, MEDIUM PLASTICITY		
20									

1620

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date:

AECOM

Client: USACE			BORING ID: 18CPT 25
Project Number: 60274185			
Site Location: LHAAP SITE 18/24			
Coordinates:	Elevation:		Sheet: 2 of 2
Drilling Method:			Monitoring Well Installed: No
Sample Type(s):	Boring Diameter:		Screened Interval:
Weather:	Logged By:	Date/Time Started:	Depth of Boring: 48'
Drilling Contractor:	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
20									
1	X	18CPT-25 21-22		100%	26.3	CL	SILTY CLAY, MOTTLED YELLOWISH BROWN & LIGHT GRAY, DAMP, MEDIUM STIFF, MEDIUM PLASTICITY		
1640 2									
3							23' INCREASE IN SAND		
4							24' SILTY FINE SAND, YELLOWISH BROWN, DAMP		
5						SM			
6							NOT SAMPLED		
7									
8	X	HYDRO PUNCH 28-32 11:28			SAMPLE		OBTAINED 1 VOA AFTER 2 HRS ON 3/26/13		
9									
30						CL	SILTY CLAY MOTTLED REDDISH BROWN, YELLOWISH BROWN & LIGHT GRAY, DAMP, STIFF		
3/26/13 0750 11	X	18CPT-25 31-32		50%		SP	30.5 FINE SAND, YELLOWISH BROWN, DAMP		
12									
13									
14									
15									
16							NOT SAMPLED		
17									
18									
19									
40									

NOTES: SET HYDRO PUNCH @ 44-48' DRY
HYDRO PUNCH SAMPLES OBTAINED FROM ADJACENT BOREHOLES, BOREHOLES ABANDONED W/ BENTONITE GROUT TREMIED TO TOTAL DEPTH

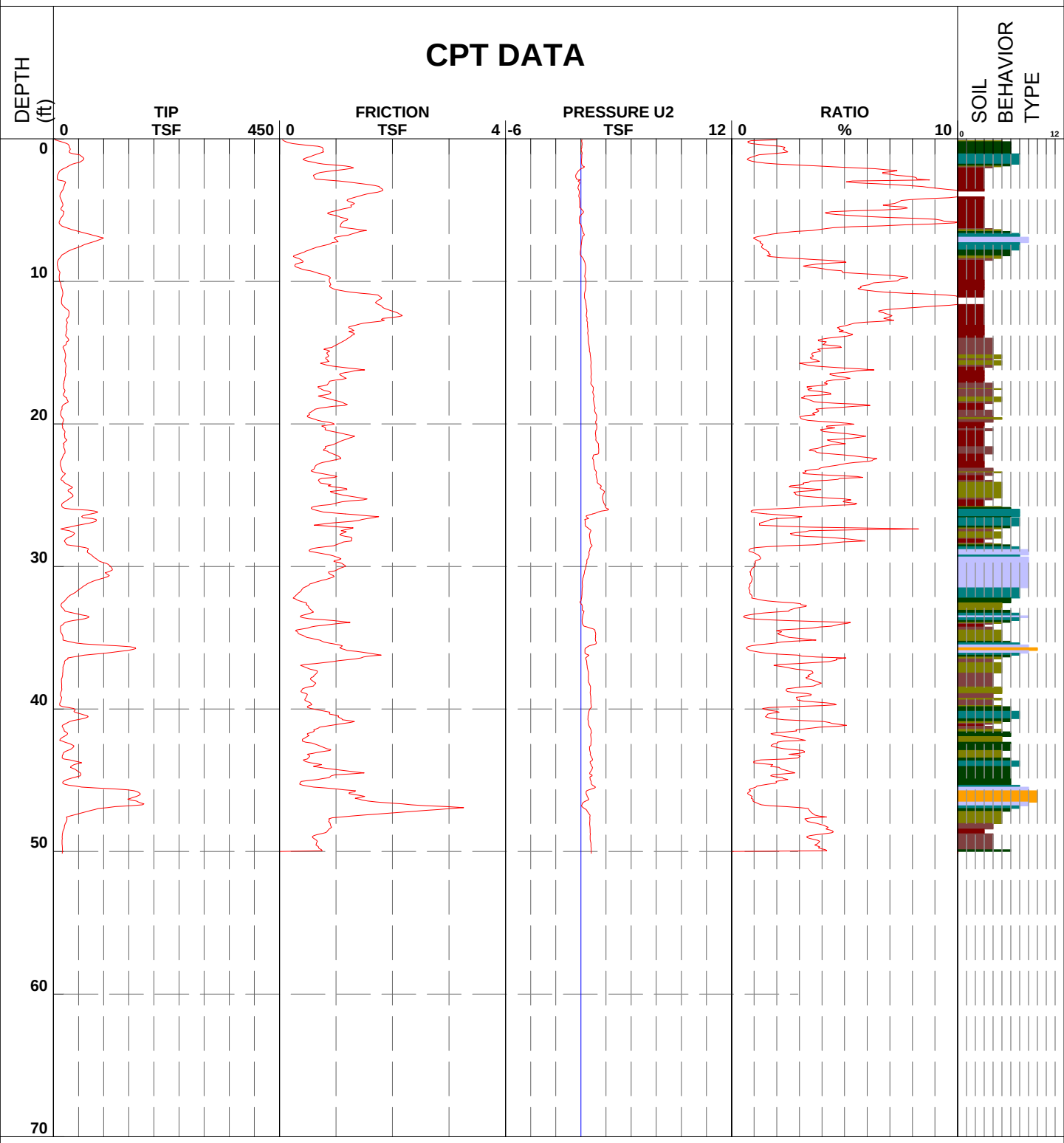
Date	Time	Depth to groundwater while drilling

Checked by Date:

00122754

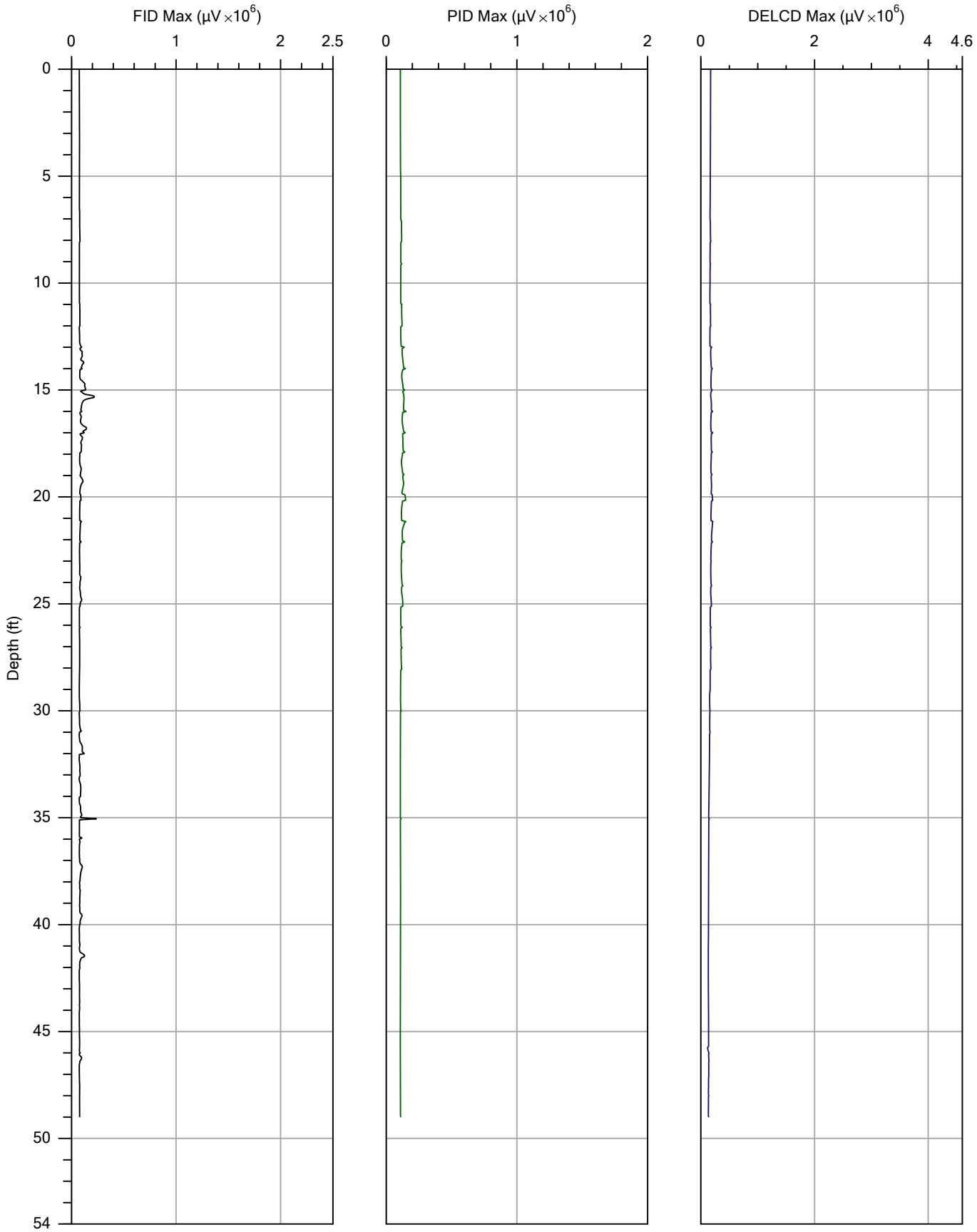
Job Number	04-1913-0010	CPT Number	18CPT25	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	02-Mar-2013 16:14:22	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



		File: 18MIP25.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 3/2/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

AECOM

Client:	USACE
Project Number:	60274185
Site Location:	LHAAP SITE 18/24
Coordinates:	Elevation:
Drilling Method:	GEOPROBE
Sample Type(s):	5' Boring Diameter: 2"
Weather:	SUNNY COLD 30°
Logged By:	JG/GH
Date/Time Started:	3/25/13
Drilling Contractor:	ETTL
Ground Elevation:	
Date/Time Finished:	

BORING ID: 18CPT 26

Sheet: 1 of 2

Monitoring Well Installed: No

Screened Interval:

Depth of Boring: 41

Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1							NOT SAMPLED		
2									
3									
4									
5									
6									
7									
8						SC	CLAYEY SAND, REDDISH BROWN, MOIST		
9	X	18CPT26 9-10'		100%	20	CL	8.2 SILTY CLAY, REDDISH BROWN & GRAY, MOIST SOFT, MEDIUM PLASTIC, OCCASIONAL SILT LAYERS TO 1/4"		
10									
11							11.5 - DARK GRAY, VERY STIFF, DAMP		
12									
13							NOT SAMPLED		
14	X								
15		HYDROPUNCH 14-18 DRY					NO WATER AFTER 1 1/4 HRS. 3/25/13		
16									
17									
18									
19									
20									

0930

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date:

AECOM

Client: USACE			BORING ID: 18 CPT 26
Project Number: 60274185			
Site Location: LHAAP SITE 18/24			
Coordinates:	Elevation:		Sheet: 2 of 2
Drilling Method:			Monitoring Well Installed: No
Sample Type(s):	Boring Diameter:		Screened Interval:
Weather:	Logged By: JG/GH	Date/Time Started:	Depth of Boring: 41
Drilling Contractor:	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
20									
1							SILTY FINE SAND, MOTTLED YELLOWISH BROWN & LIGHT GRAY, DAMP, TRACE OF CLAY (LIGHT GRAY)		
2	X	18CPT-26 22-23'		60%	212	SM			
1140 3									
4									
5									
6							NOT SAMPLED		
7									
8									
9									
30									
11	X	HYDRO PUNCH 30-34'					COULD ONLY OBTAIN 1 VOA AFTER 1 1/2 HRS 3/25/13		
1340 12									
13									
14									
15									
16									
17	X	HYDRO PUNCH 37-41 DRY					NO WATER AFTER 1 1/4 HRS 3/25/13		
18									
19									
40									

NOTES: HYDRO PUNCH SAMPLES OBTAINED FROM ADJACENT BOREHOLES. BOREHOLES BACKFILLED W/ BENTONITE GROUT WITH A TREMIE PIPE TO TOTAL DEPTH.

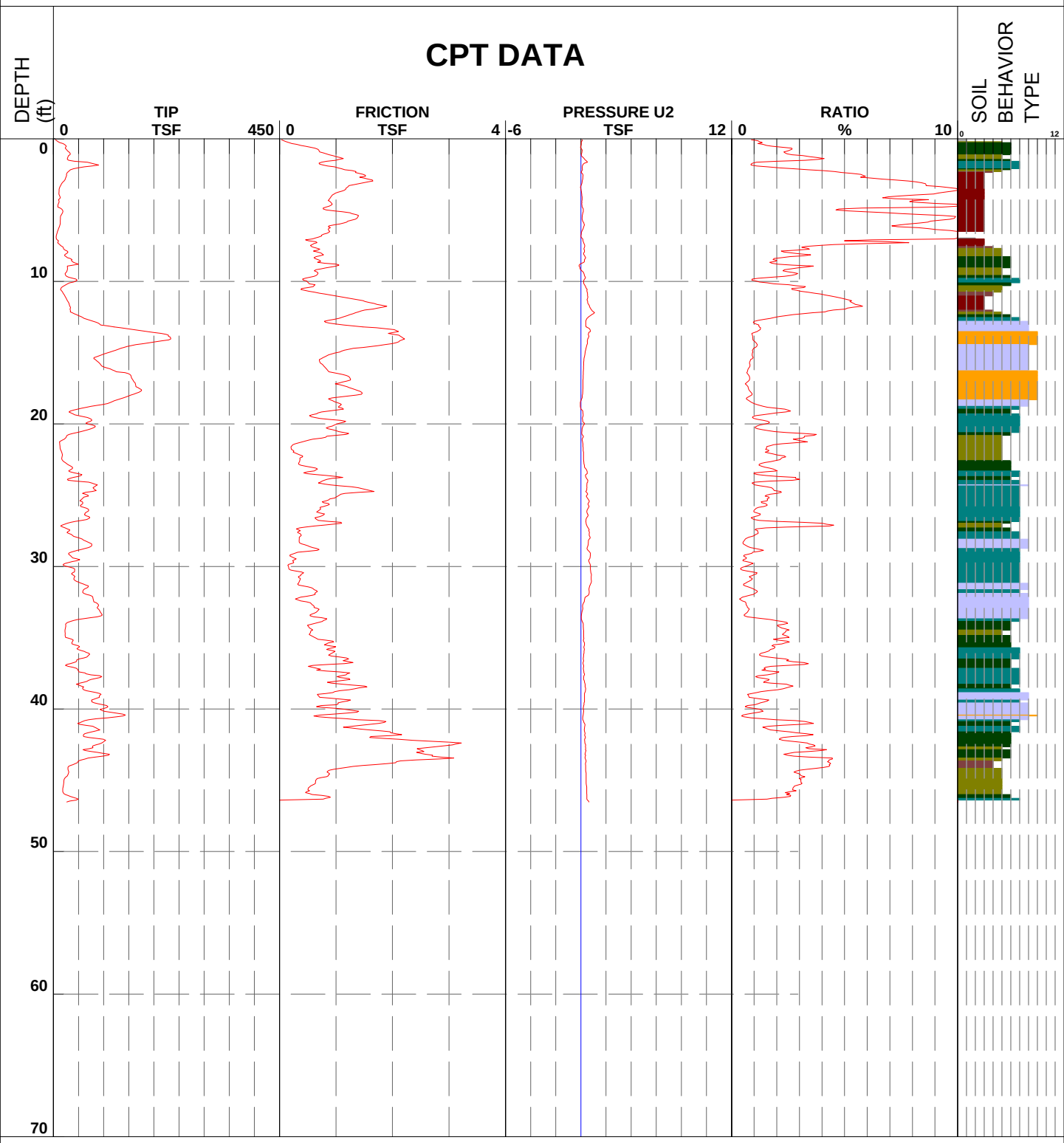
Date	Time	Depth to groundwater while drilling

Checked by Date:

00122758

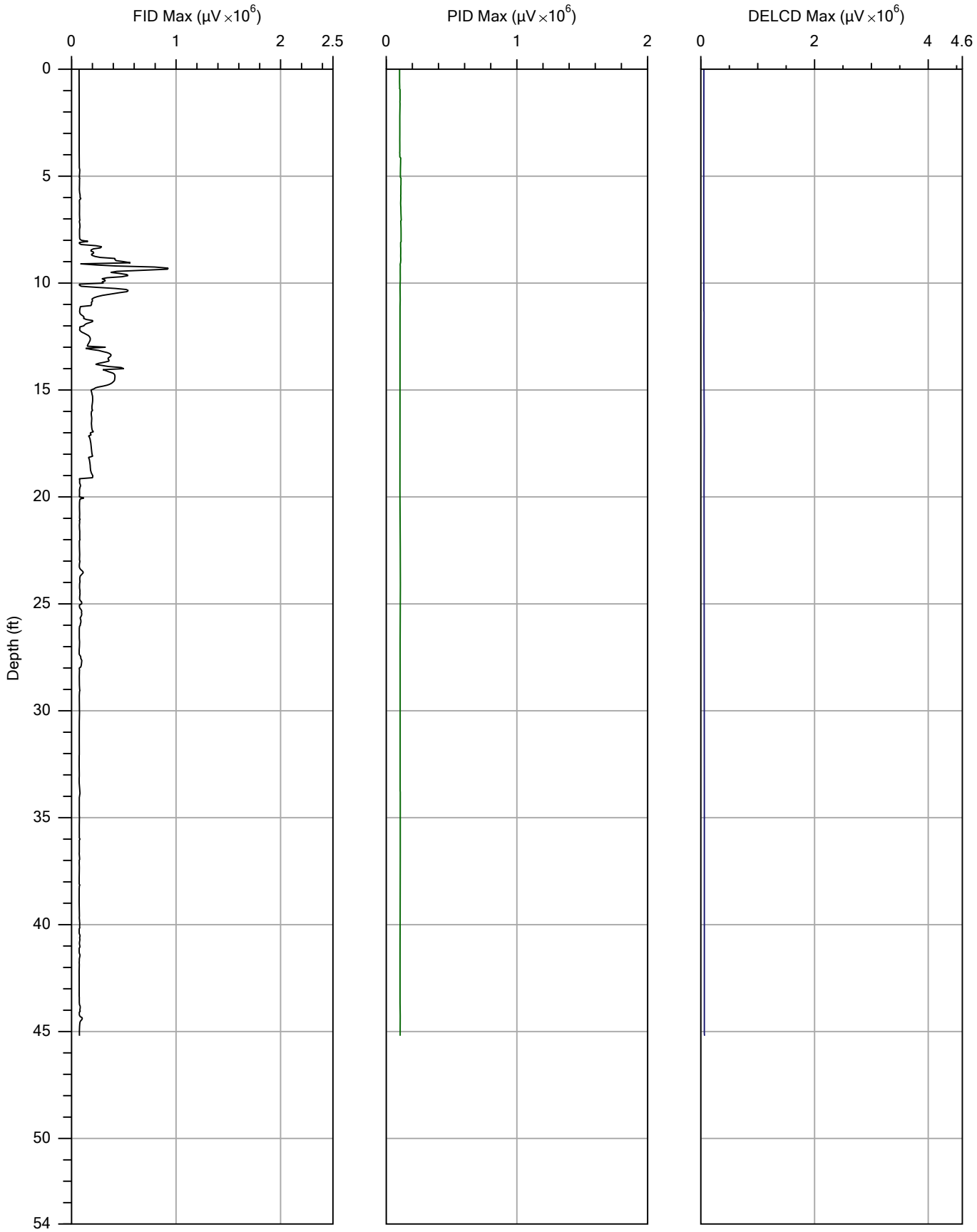
Job Number	04-1913-0010	CPT Number	18CPT26	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	04-Mar-2013 08:10:22	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



		File: 18MIP26.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 3/4/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

AECOM

Client: USACE			BORING ID: 18CDT27
Project Number:			
Site Location: LHNAD 18/24			
Coordinates:	Elevation:		Sheet: 1 of 2
Drilling Method: Geoprobe 6600			Monitoring Well Installed:
Sample Type(s): 6x6	Boring Diameter: 2"		Screened Interval:
Weather: Clear, windy	Logged By: [illegible]	Date/Time Started: 3-28-13	Depth of Boring: 35
Drilling Contractor: ETTL	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
							Discontinous Sampling		
1				85%		ML	~~DT~~ - Clayey Silt, Lt. Gray and yellowish brown, moist 5-6		
2									
3						SM	6-6.5 - Silty fine Sand, Lt. grey, ~~moist~~ Damp - wet, Poorly graded		
4									
5	7-8	X	@ 1400		723	SP	6.5 - 10 - Fine Sand, Poorly graded, wet, Lt. grey and yellowish brown.		
6									
7									
8							Discontinous Sampling		
9				95%		SP	15 - 16.5 - Fine Sand, poorly graded, Lt grey and yellowish brown, wet		
10									
11	17-18	X	@ 1430		1030	CL	16.5 - 20 Silty Clay, Lt. grey and yellowish brown, orange mottling, moist, stiff		
12									
13									
14							Discontinous Sampling		
15				65%			25-26 - lost - wet		
16	26-27	X	@ 1500		1210	CL	26-28 - Silty Clay, Grey, orange mottling, moist, stiff		
17						CH	28-30 - Clay, Lt. grey, orange mottling, moist, stiff - v. stiff		
18									
19									
20									

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by _____ Date 3-28-13

AECOM

Client: USACE			BORING ID: 18CPT27
Project Number:			
Site Location:			
Coordinates:	Elevation:		Sheet: 2 of ~~1~~ 2
Drilling Method:			Monitoring Well Installed:
Sample Type(s):	Boring Diameter:		Screened Interval:
Weather: Cloudy, Windy	Logged By:	Date/Time Started:	Depth of Boring: 35'
Drilling Contractor: FTTL	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
				70%		CH	30-34.5 - clay, Lt. grey, St.ff to V.Stiff, moist. orange mottling.		
2									
3	33-34'	X	@ 1530		1310	SP	34.5-35 - fine - med grained Sand, Poorly graded, Lt. grey, wet		
4									
5									
6									
7							TD = 35'		
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

NOTES:

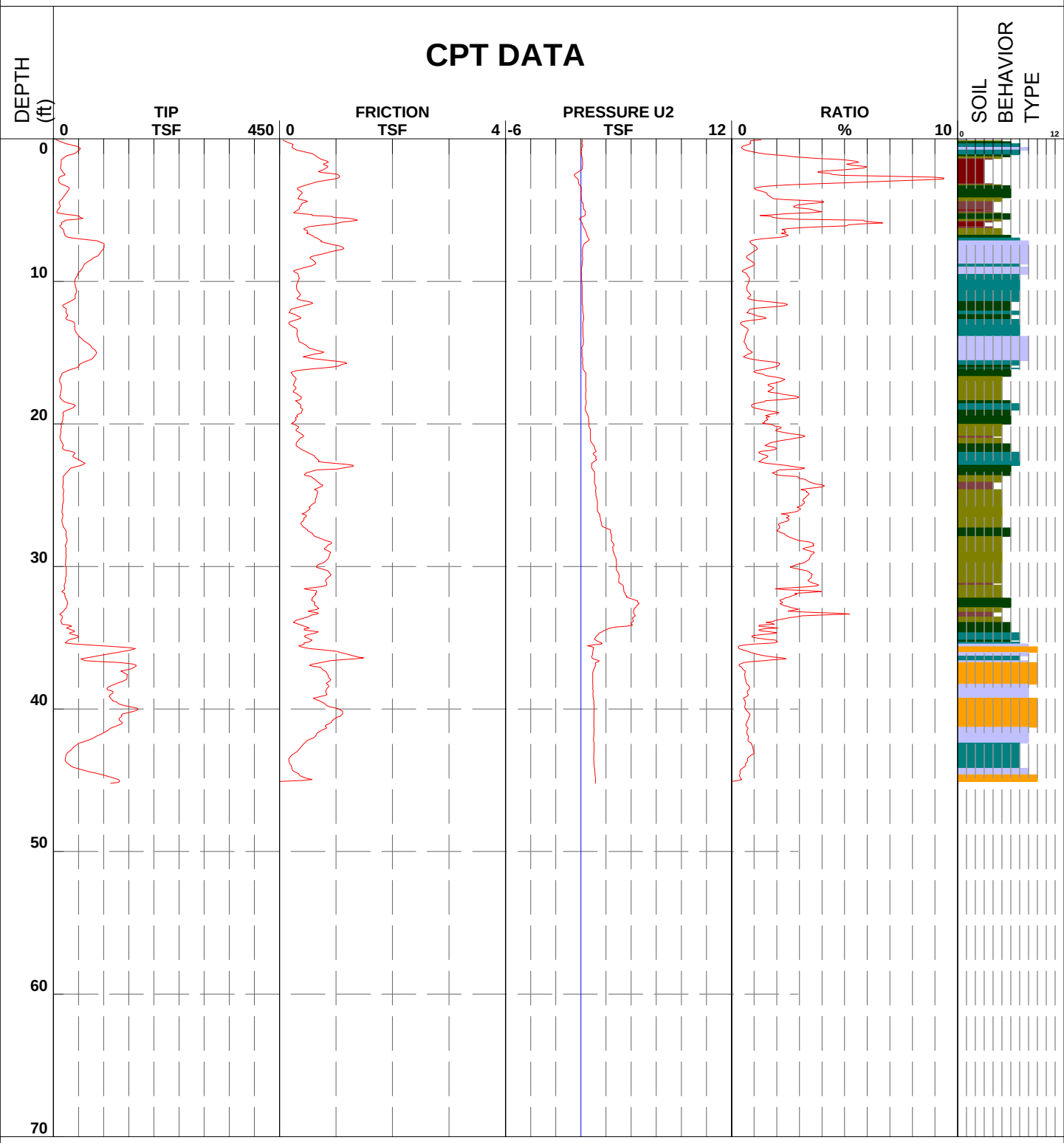
Date	Time	Depth to groundwater while drilling

Checked by _____ Date _____

00122762

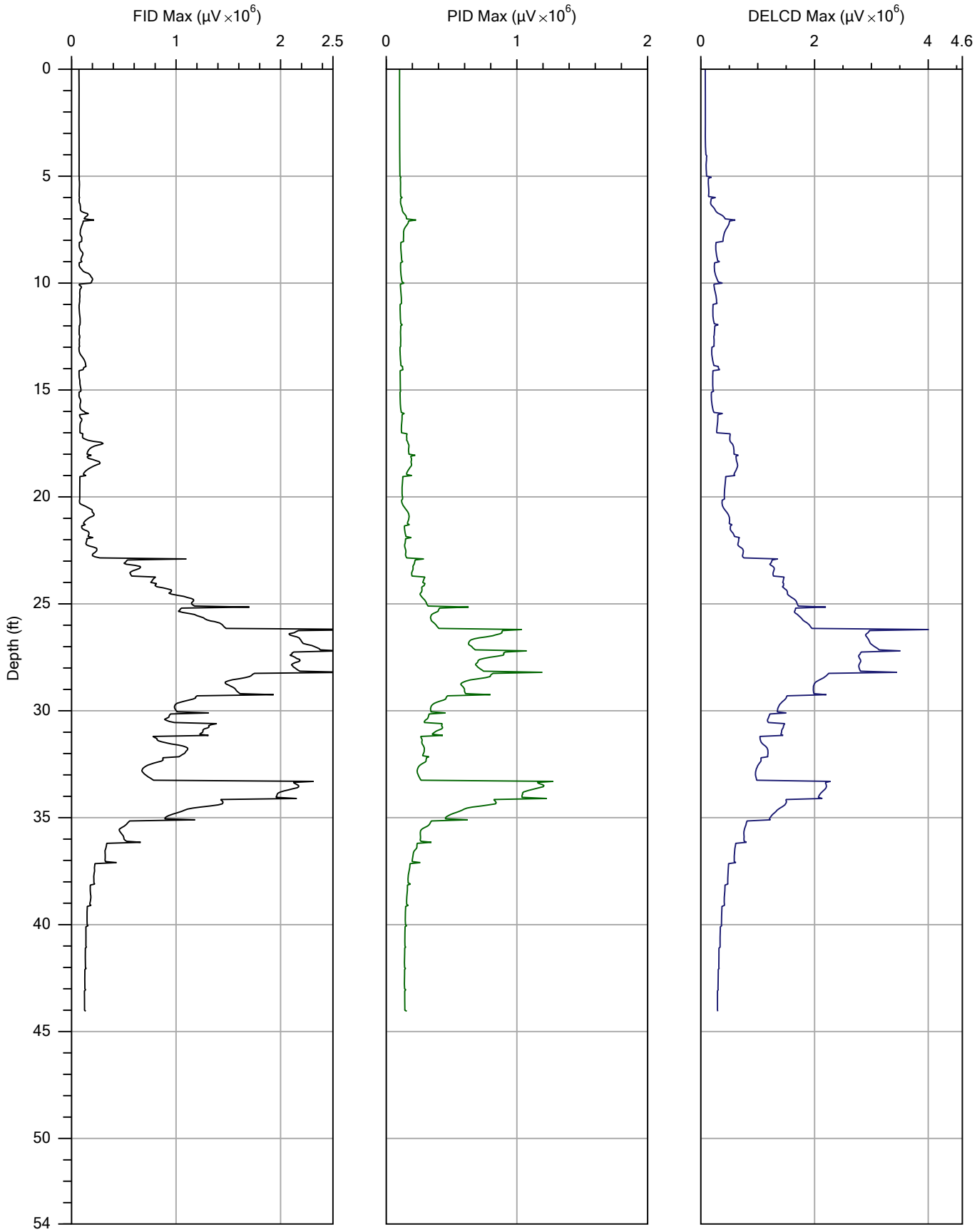
Job Number	04-1913-0010	CPT Number	18CPT27	Location	Karnack, Texas
Operator	Albert Fonseca	Date and T	02-Mar-2013 10:32:21	Cone Number	A15F2.5CKE2H1519
Client	ETTL Engineering				

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Robertson et al. 1986 * Overconsolidated or Cemented



		File: 18MIP27.MIP
Company: ETTL Engineers & Consultants	Operator: Albert Fonseca	Date: 3/2/2013
Project ID: 04.1913-0010	Client: Karnack, TX	Location:

AECOM

Client: USACE			BORING ID: 18SB01-2013
Project Number:			
Site Location: LHAAP 18/24			
Coordinates:	Elevation:		Sheet: 1 of 3
Drilling Method: Geoprobe 6600			Monitoring Well Installed:
Sample Type(s): Grab	Boring Diameter: 2"		Screened Interval:
Weather: CLEAR	Logged By: [illegible]	Date/Time Started: 4-2-13	Depth of Boring: 45
Drilling Contractor: ETTL	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1				100%		CL	0-2 - Silty Clay, Greyish brown, med-stiff, moist, orangish brown mottling, trace roots present.		
2					0.1				
3		0-5				CH	2-6 - Silty Clay, Lt. grey and reddish brown, moist, stiff		
4									
5				5'					
6				100%	0.0		6-6.5 - Silty Sand, Lt. grey and reddish brown, wet, Poorly graded.		
7									
8		5-10				CH	6.5-6.9 - Silty Clay, Lt. grey and reddish brown, stiff, moist.		
9									
10				10'			6.9-7.3 - Silty Sand, poorly graded, Lt. grey, and yellowish brown, fine grained.		
11				100%					
12					0.0	CL	7.3-11 - Silty Clay, Lt. grey orangish brown mottling, stiff, moist		
13		10-15							
14									
15				15'		CH	11-16 - Silty Clay, Lt. grey and orangish brown mottling, moist, stiff.		
16				100			-14-14.3 - Lignite present		
17		15-20							
18						CL	16-18.5 - Silty Clay w/ Sand, Lt. grey and yellowish brown mottling, moist, med-stiff, Silty Sand layers present throughout, traces of lignite throughout.		
19					0.0				
20				20					

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date: 4-2-13

AECOM

Client: USALE	BORING ID: 18SB01-2013
Project Number:	
Site Location: LHAAP 18/24	
Coordinates:	Elevation:
Drilling Method: Geoprobe 6600	Sheet: 2 of ~~1~~ 3
Sample Type(s):	Boring Diameter:
Monitoring Well Installed:	Screened Interval:
Weather: Clear	Logged By: [illegible]
Date/Time Started: 4-2-13	Depth of Boring:
Drilling Contractor: ETTL	Ground Elevation:
Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1				100%		SM	18.5 - 19 - Silty fine sand, Lt. grey and yellowish brown, moist, poorly graded		
2									
3						CL	19 - 19.5 - Silty Clay ~~w/ Sand~~, Lt. grey, and yellowish brown mottling, fine grained sand, moist.		
4									
5						SM	19.5 - 21 - Silty fine sand, Lt. grey and Orangish brown, moist, poorly graded		
6									
7		20-25					- Silty Clay layer (3 inches) - present med-stiff, moist. lt grey and yellowish brown.		
8									
9						CL	21 - 27.5 Silty Clay ~~w/ Sand~~, Lt. grey and yellowish brown, moist - wet.		
10	22'				00				
11							- fine Sand Layer, moist + wet - (23.0 - 23.1) - yellowish brown		
12									
13				100%		GH	27.5 - Silty clay, Lt. grey and yellowish brown mottling, stiff, moist med stiff - stiff		
14						CL	28.0		
15						SP	28 - 29 - fine Sand, Poorly graded, Lt. grey and yellowish brown, wet - moist		
16		25-30							
17						CL	29 - 30 Silty Clay, Lt. grey and yellowish brown, moist, stiff		
18									
19					0.1				
20				30					

22'

25

29'

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date: 4.2.13

AECOM

Client: USACE			BORING ID: 18SB01-2013
Project Number:			
Site Location: LHAAP 12/24			
Coordinates:	Elevation:		Sheet: 2 of 3
Drilling Method: Geoprobe 6600			Monitoring Well Installed:
Sample Type(s): Grab	Boring Diameter: 2"		Screened Interval:
Weather: Clear	Logged By: [illegible]	Date/Time Started: 4-2-13	Depth of Boring: 45
Drilling Contractor: EPL	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
~~32~~ 1		32'		100%			30-32 - fine Sand, poorly graded, ~~lt~~ yellowish brown, wet		
2					0.0				
~~35~~ 3		35				CH	32-35 - Clay, Lt. grey and yellowish brown mottling, stiff, moist		
4		(30-35)		100%					
36.5 5		36.5			0.0		35-37 - Clayey Sand w/ silt, fine grained, poorly graded, Lt. grey and yellowish brown, wet		
6									
7						CL	37-38 - Silty Clay, Lt. grey and yellowish brown mottling, moist-wet, ~~mod.~~ stiff		
8		(35-40)							
9							38-38.5 - Silty ~~fr~~ fine Sand, poorly graded, yellowish brown, wet		
10									
~~40~~ ~~41~~ 11		40' 41'		100%	0.0	CL	38.5-42 Silty Clay, Lt. grey and yellowish brown, stiff, moist-wet		
12		45'			0.0				
~~45~~ 13		(40-45)		45	0.0	CH	42-45 Clay, Lt. grey and yellowish brown mottling, moist, stiff		
14									
15									
16									
17									
18									
19									
20							TD = 45		

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date: 4-2-13

AECOM

Client:	USACE
Project Number:	
Site Location:	LHAAP 18/24
Coordinates:	Elevation:
Drilling Method:	Geoprobe 6600
Sample Type(s):	Grab
Boring Diameter:	2"
Weather:	Clear, Winds
Logged By:	
Date/Time Started:	4-2-13
Drilling Contractor:	ETTL
Ground Elevation:	
Date/Time Finished:	

BORING ID: LPSB 02-2013

Sheet: 1 of 1
Monitoring Well Installed:
Screened Interval:
Depth of Boring: 50'
Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1				100%		CL	0-1.5 silty clay, Greyish brown, moist, stiff, grass roots present		
2									
3						CL	1.5-2 - silty clay, oranisih red, moist, med-stiff		
4						CL	2-3.5 - silty clay, greyish brown w/ yellowish brown mottling, moist, stiff		
5	4'				0.1		3.5-4 - fill gravel, high angle ~1 inch dia.		
6				5'		CL	4-5 - silty clay, Lt. brown, moist, soft		
7	8'			100%	0.3	CL	5-8 - silty clay, Lt. grey, oranisih brown mottling, moist, stiff		
8	15'				1.3	CL	8-10 - silty clay, ~~Lt grey w/ oranisih brown mottling~~, greyish brown, moist, med stiff.		
9	16'			10'	0.0				
10	19'			100%	0.0	CL	10-23.5 - silty clay, Lt. grey, oranisih brown mottling, moist, stiff - Note @ 15' 2 inches black marks present		
11	21'				0.0				
12									
13	24'				0.0	SP	23.5-28 - Fine sand, poorly graded, Lt. brown, wet		
14						SM	28-28.5 - silty fine sand w/ clay, Lt. grey, poorly graded, wet		
15									
16	~~33'~~ 31'				0.1	CL	28.5-30 - Clay, Lt. grey, oranisih brown mottling, moist, stiff		
17									
18				30'		SM	30-31 - silty fine sand, poorly graded, Lt. grey, wet		
19									
20									

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date: 4-2-13

AECOM

Client: USACE			BORING ID: 18SB 02-2013
Project Number:			
Site Location: LHAAP 18/24			
Coordinates:	Elevation:		Sheet: 2 of 3
Drilling Method: Geoprobe 6600			Monitoring Well Installed:
Sample Type(s):	Boring Diameter: 2"		Screened Interval:
Weather: Clear, windy	Logged By:	Date/Time Started: 4-2-13	Depth of Boring: 50
Drilling Contractor: ETTL	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1	31'			65%	~~0.0~~	CL	31-35 - Silty Clay, lt. Grey, yellowish brown mottling, moist, stiff		
2	34'			35	0.0	SM	35-37 - Silty fine Sand w/ Clay, poorly graded, lt. grey, yellowish brown, wet		
3	36'			75%	0.1				
4						CL	37-~~40~~ 37.5 - Silty Clay, lt. grey, orangish brown mottling, moist, stiff - med stiff		
5									
6	38'				0.0				
7						SM	37.5-38 - Silty fine Sand, lt. grey and orangish brown, poorly graded, moist - wet		
8									
9						SM	38-38.5 - Silty fine Sand, poorly graded, lt. grey orangish brown, wet		
10									
11						CL	38.5-40 - Silty Clay, lt. grey, orangish brown mottling moist, stiff		
12	41'			95%	2.5				
13						SM	40-43 - Silty fine Sand, reddish brown, poorly graded, wet		
14									
15									
16	43'				3.1	SM	43-43.5 - Silty fine Sand w/ Clay, reddish brown w/ orangish brown mottling, poorly graded wet		
17									
18									
19									
20				45'					

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by: Date:

AECOM

Client: USACE			BORING ID: 185B 02 -2013
Project Number:			
Site Location: HHAAP 18/24			
Coordinates:	Elevation:		Sheet: 3 of 3
Drilling Method: Geoprobe 6600			Monitoring Well Installed:
Sample Type(s):	Boring Diameter: 2"		Screened Interval:
Weather: Clear, windy	Logged By:	Date/Time Started: 4-2-13	Depth of Boring: 50
Drilling Contractor: ETTL	Ground Elevation:	Date/Time Finished:	Water Level:

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1	44'			100%	2.3	CH	43.5-44.5 - Silty Clay, brownish grey, orangish brown mottling, moist, stiff		
2	46'				2.7		- Black marks - 43.5-43.7'		
3	50'			50'	3.0	CL	44.5-50 - Silty Clay, Lt. grey, yellowish brown mottling, moist, stiff		
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20							TD = 50		

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by

Date: 4-2-13

00122770

18WW22

AECOM

Client: USACE			BORING ID: 18WW22
Project Number: 60274185			
Site Location: LHAAP Site 18/24			
Coordinates:	Elevation:		Sheet: 1 of 2
Drilling Method: HSA			Monitoring Well Installed:
Sample Type(s):	Boring Diameter: 10 1/4"		Screened Interval:
Weather: Sunny + Warm	Logged By:	Date/Time Started: 4/16/13	Depth of Boring:
Drilling Contractor: ETTL	Ground Elevation:	Date/Time Finished:	Water Level: N/A

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1							For Lithology Description		
2							See ~~Soil Boring/Well No. C-4~~ 11/25		
3							co-located boring log C-04		
4									
5									
6									
7							10 1/4" Diam Borehole		
8									
9									
10							4" Diam. Sch 40 PVC Well Casing		
11									
12									
13							Type I/II Portland Cement/Bentonite Grout		
14									
15									
16									
17									
18									
19									
20									

NOTES:

Date	Time	Depth to groundwater while drilling

Checked by Date:

00122771

18WW22

AECOM

Client: USACE			BORING ID: ~~18WW-22~~
Project Number: 60274185			
Site Location: LHAAP SITE 18/24			
Coordinates:	Elevation:		Sheet: 2 of 2
Drilling Method: HSA			Monitoring Well Installed:
Sample Type(s):	Boring Diameter: 10 1/4"		Screened Interval:
Weather:	Logged By:	Date/Time Started: 4/16/13	Depth of Boring:
Drilling Contractor:	Ground Elevation:	Date/Time Finished:	Water Level: NA

Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (inches)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)	Lab Sample ID	Lab Sample Depth (Ft.)
1									
2									
3							3/8" BENTONITE PELLETS		
4									
5									
6							20/40 SILICA SAND		
7									
8									
9							0.01" SLOTTED SCH 40 PVC SCREEN		
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
40									

NOTES: BOTTOM OF SCREEN
BOTTOM OF CASING = 42'
TD = 42.5

Date	Time	Depth to groundwater while drilling

Checked by Date:

00122772

002639

Monitor Well Installation

Client: Camp, Dresser & McKee, Inc. Job No.: 84-894 Date Drilled: 7/25-26/84 Well No.: C-4

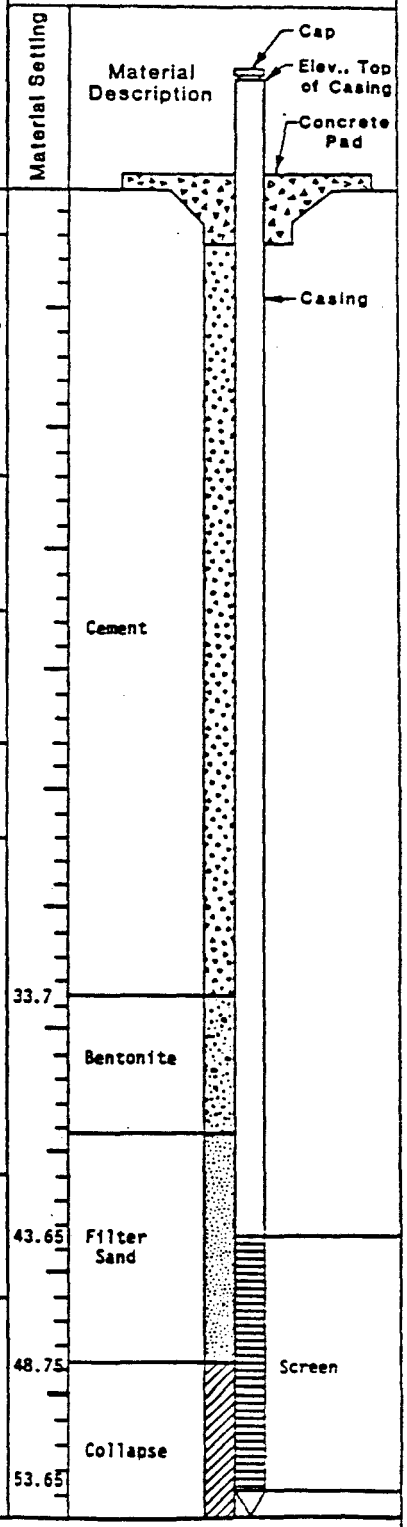
Site: L.A.P., Karnack, Texas Elevation: Pad _____ Top of PVC Casing _____

Total Depth: 55.5 feet Casing Size & Type: 4"ID, Sch. 80 PVC, Flush Joint Screen Size: 4"ID, .010" slots

Comments: _____

Depth	Symbol	Stratigraphy	Sample Description
	MH		SILT, highly plastic, soft, dry, buff color, roots.
5	CL		SANDY CLAY, moderately plastic, 20% very fine sand, hard 4.5 TSF, damp, tan and red, sand is scattered in matrix.
10	CL		SANDY CLAY, similar to above except sand is in defined partings.
15	CH		SILTY CLAY, highly plastic, 30% silt, very stiff, dry to damp.
20	SP		SAND, uniform fine, compact, saturated, red.
25	CH		CLAY, highly plastic, < 5% very fine sand, stiff, damp, blue and red.
30	SP		SAND, uniform very fine, compact, saturated, tan.
35	SP		SAND, similar to above except tan (35.0 feet - 36.2 feet) and dark brown (36.2 feet - 37.0 feet), minor (<5%) silt.
40	SP		SAND, similar to above except loose.
	CH		CLAY, highly plastic, stiff, saturated, brown.
45	CH		CLAY, similar to above except green.
	SP		SAND, uniform medium sand, loose, saturated, green.
50	SP		SAND, similar to above.

Completion Data



Underground Resource Management, Inc.
Austin, Texas

URM-R3d

Monitor Well Installation

002640

Client: Camp, Dresser & McKee, Inc. Job No.: 84-894 Date Drilled: 7/25-26/84 Well No.: C-4

Site: L.A.P., Karnack, Texas Elevation: Pad _____ Top of PVC Casing _____

Total Depth: 55.5 feet Casing Size & Type: 4"ID Sch. 80 PVC, Flush Joint Screen Size: 4"ID, .010" slots

Comments: _____

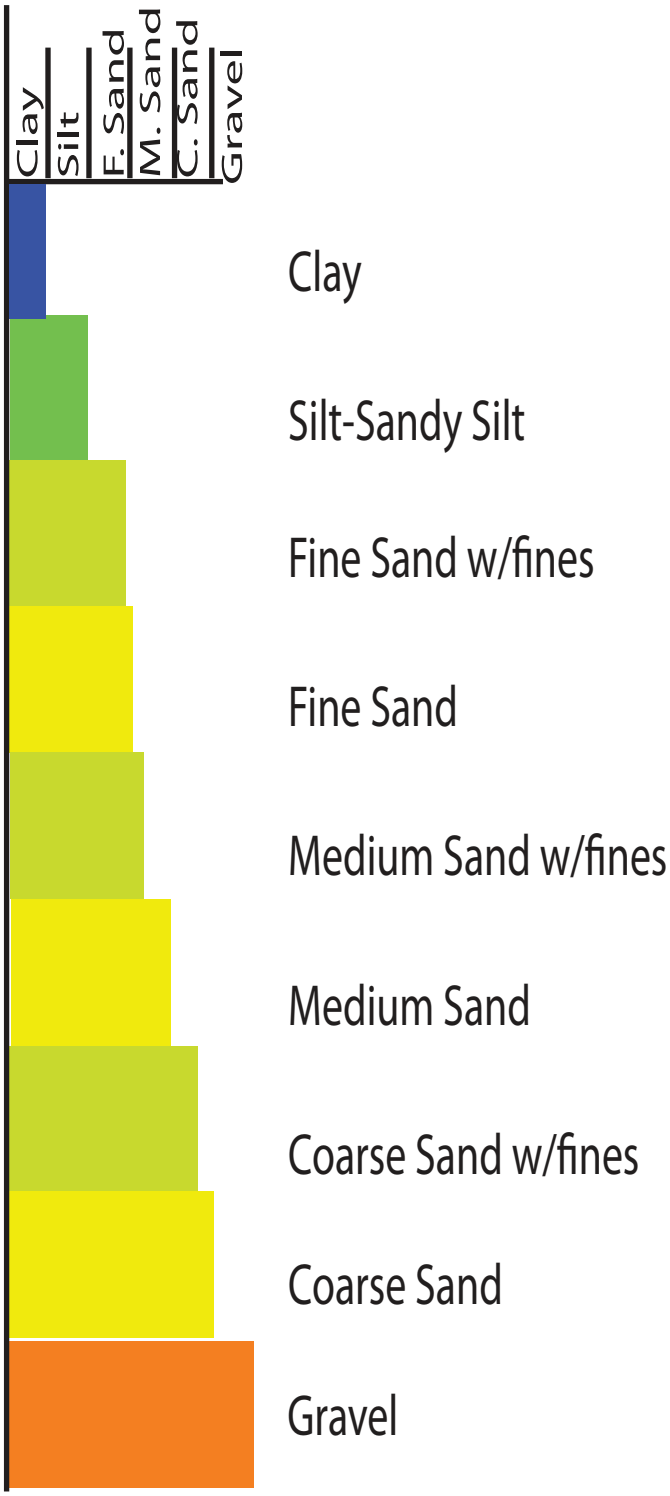
Depth	Symbol	Stratigraphy	Sample Description	Completion Data: Material Setting	Completion Data: Material Description
	SP		SAND, similar to above.		Collapse
55	SP		SAND, similar to above except coarse and sub-angular (55.3 - 55.4 Lignite).		
	CH		CLAY, highly plastic, soft, saturated, blue.		
60					
65					
70					
75					
80					
85					
90					
95					
100					

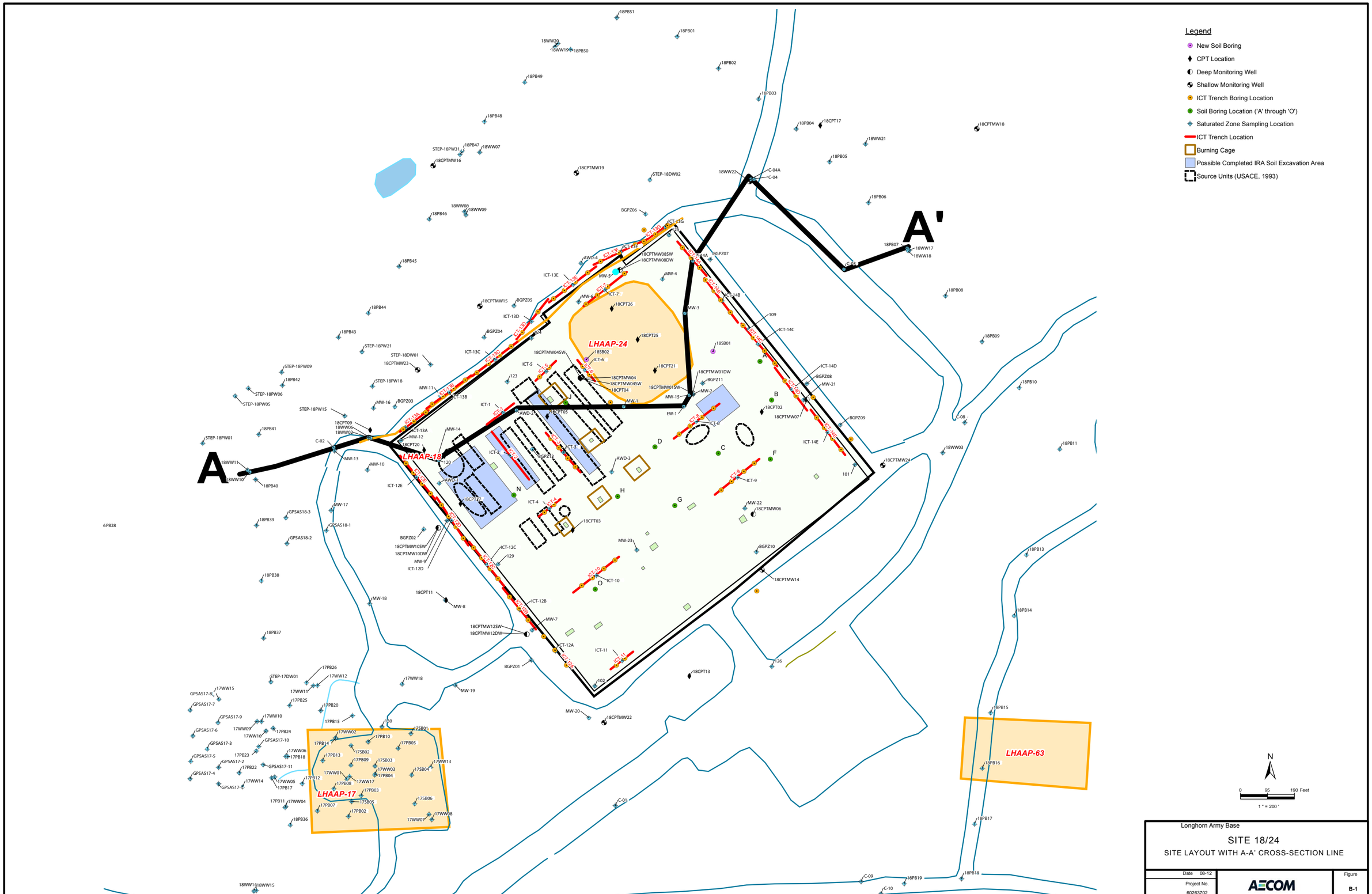
Underground Resource Management, Inc.
Austin, Texas

URM-R33

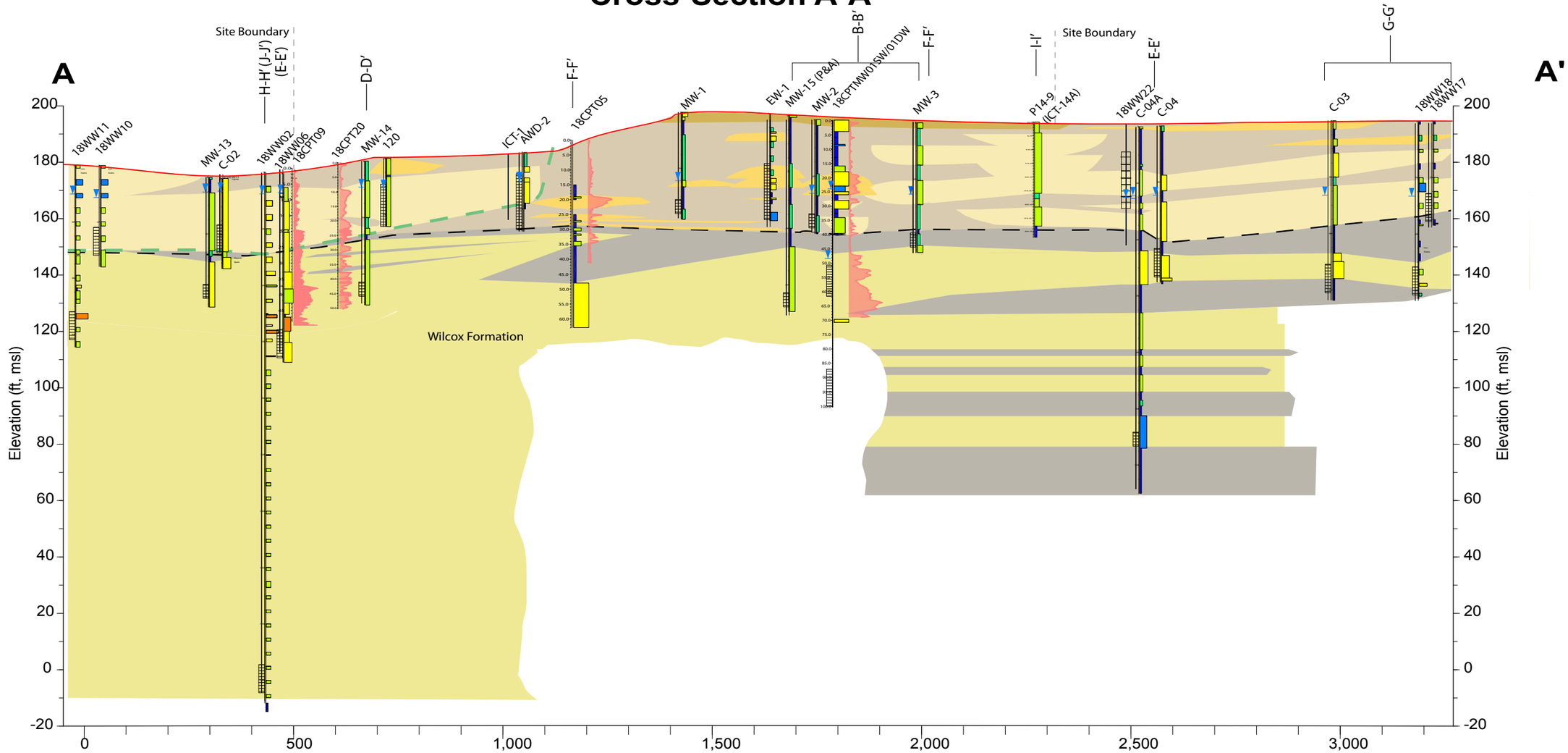
APPENDIX B: Lithologic Cross-Sections

Grain Size Log




Legend
New Soil Boring
CPT Location
Deep Monitoring Well
Shallow Monitoring Well
ICT Trench Boring Location
Soil Boring Location ('A' through 'O')
Saturated Zone Sampling Location
ICT Trench Location
Burning Cage
Possible Completed IRA Soil Excavation Area
Source Units (USACE, 1993)
A
A'
LHAAP-24
LHAAP-18
LHAAP-17
LHAAP-63
N
0 95 190 Feet
1 " = 200 '
Longhorn Army Base
SITE 18/24
SITE LAYOUT WITH A-A' CROSS-SECTION LINE
Date 08-12
Project No. 60263702
AECOM
Figure B-1
File: W:\work\60263702\GIS\Project\ESS Cross Section Base Map.mxd
Date: Wednesday, September 18, 2013 11:15:05 AM

Cross-Section A-A'



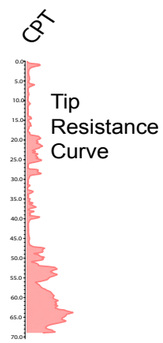
Down-hole Data Legend

Monitoring Well Data Explanation

Groundwater Level and Date Collected May 2013

Monitoring Well Screen

P&A: Plugged and Abandoned



Tip Resistance Curve

Lithofacies

Fill Material (coarse)

Sand Lithofacies

Channel and point bar deposits

Levee and splay deposits

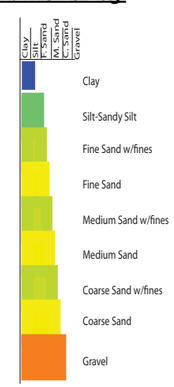
Wilcox Fm.marine and deltaic sands (Eocene)

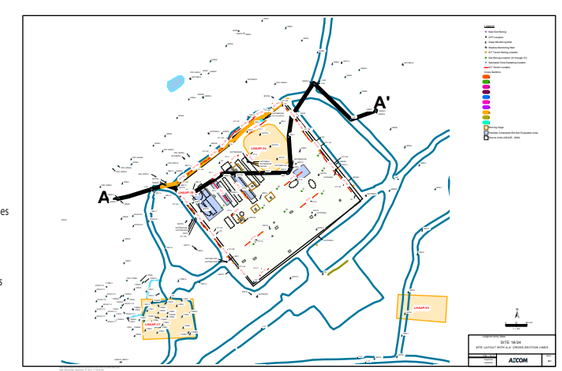
Silt/Clay Lithofacies

Fine overbank deposition (flood plain silts and clays)

Wilcox Fm.marine and deltaic clays and silts (Eocene)

Grain Size Log

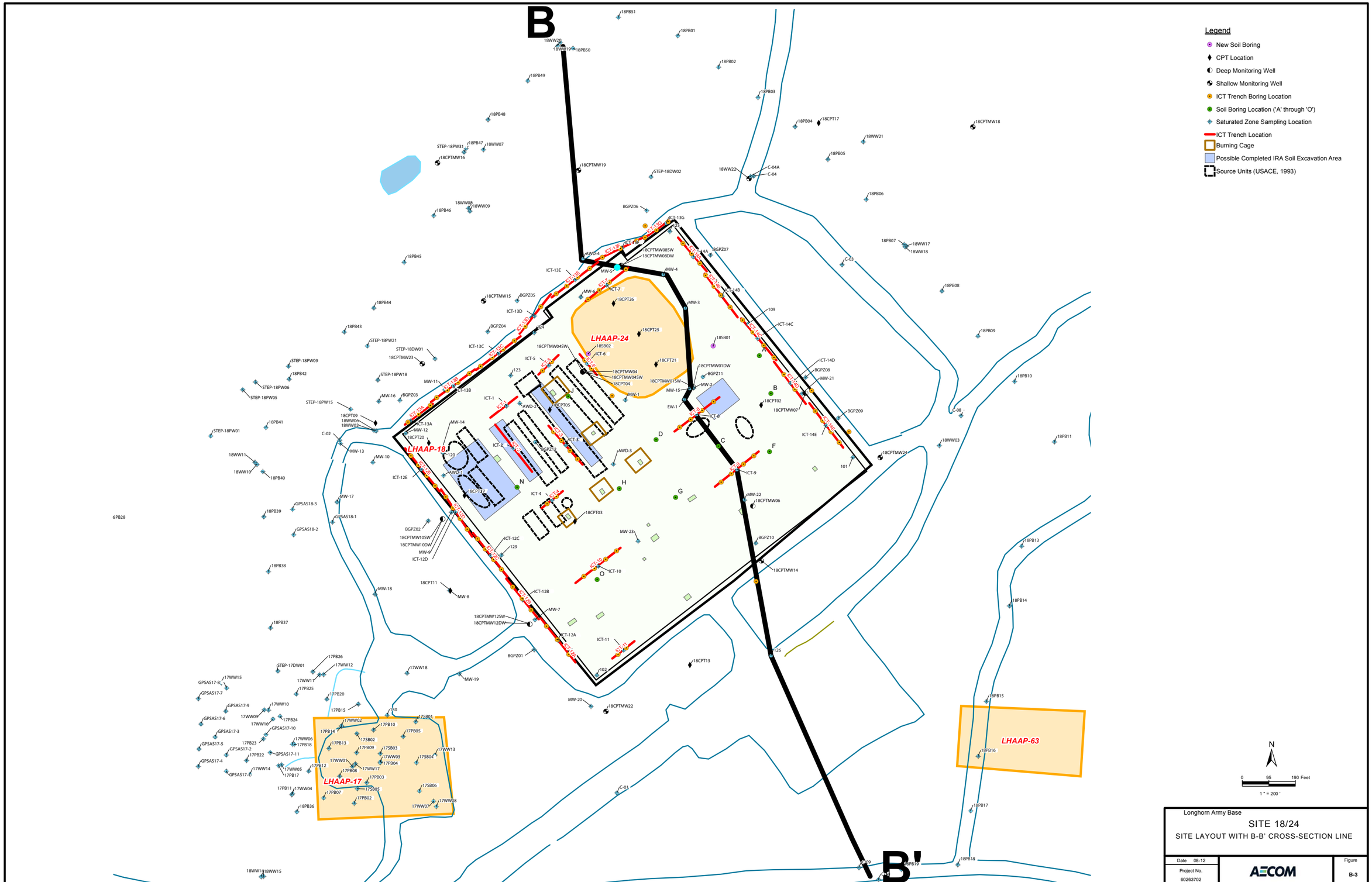




Erosional Contact between Area 1 and 2 Alluvium

Erosional Contact alluvium and Wilcox

AECOM	Longhorn Army Ammunition Plant Marshall, TX		
LHAAP 18/24 Cross Section A-A'			
PROJECT NO. 60274185	DRAWN BY: TT	DATE: 10/04/2013	Figure B-2



Longhorn Army Base

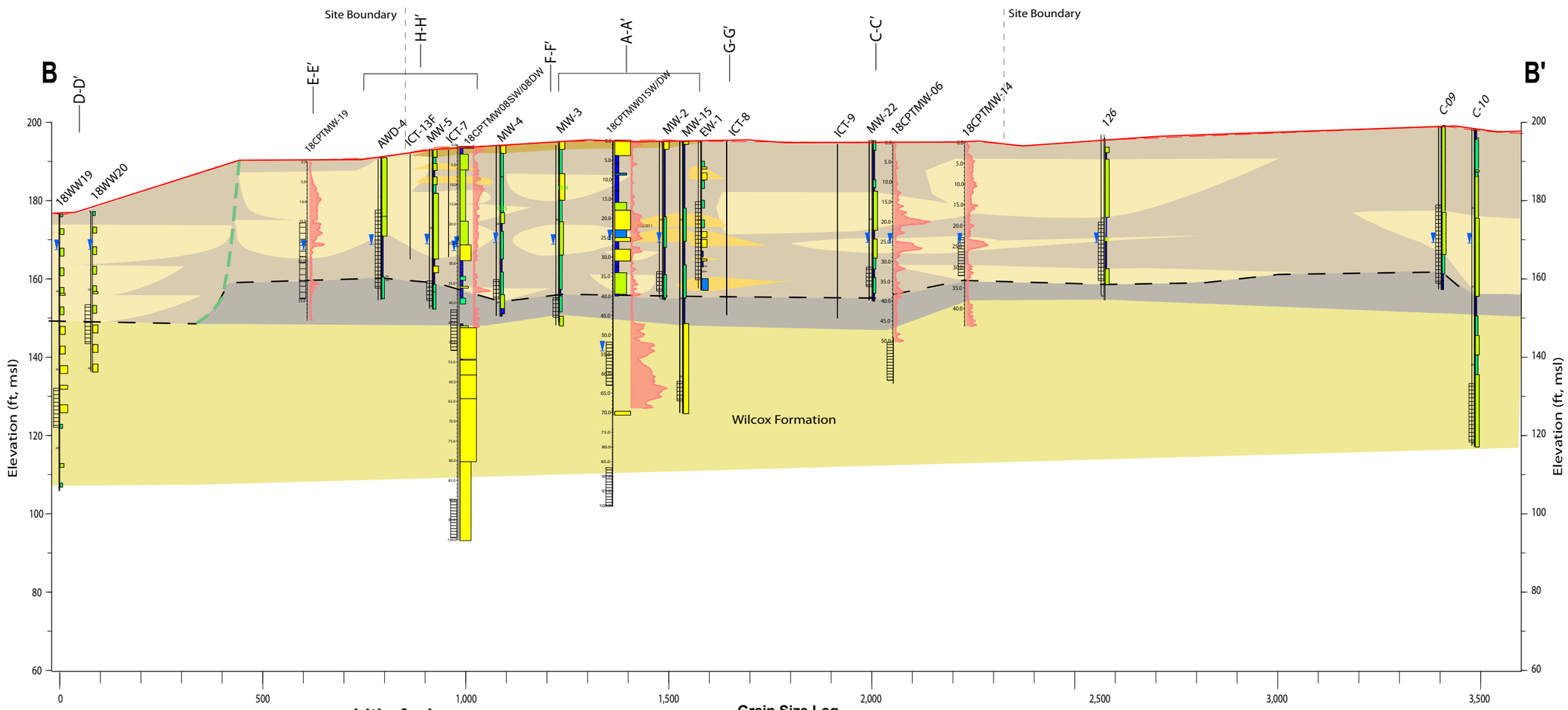
SITE 18/24

SITE LAYOUT WITH B-B' CROSS-SECTION LINE

Date 08-12	AECOM	Figure
Project No. 60263702		B-3

File: W:\work\60263702\GIS\Project\ESS Cross Section Base Map.mxd
Date: Wednesday, September 18, 2013 11:15:05 AM

Cross-Section B-B'



Down-hole Data Legend

Monitoring Well Data Explanation

Groundwater Level and Date Collected May 2013

Monitoring Well Screen

Tip Resistance Curve

Lithofacies

Fill Material (coarse)

Sand Lithofacies

Channel and point bar deposits

Levee and splay deposits

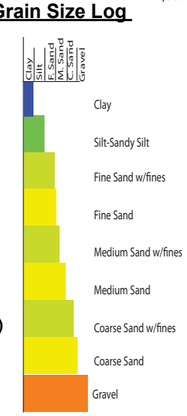
Wilcox Fm.marine and deltaic sands (Eocene)

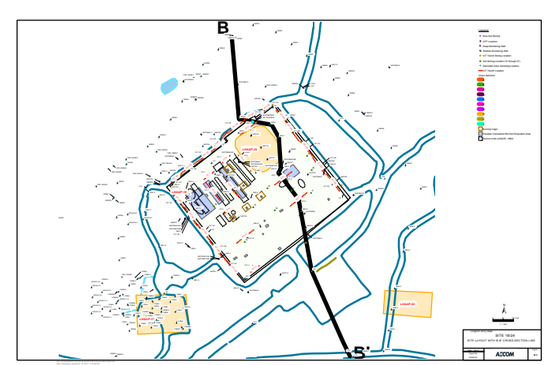
Silt/Clay Lithofacies

Fine overbank deposition (flood plain silts and clays)

Wilcox Fm.marine and deltaic clays and silts (Eocene)

Grain Size Log





Erosional Contact between Area 1 and 2 Alluvium

Erosional Contact alluvium and Wilcox

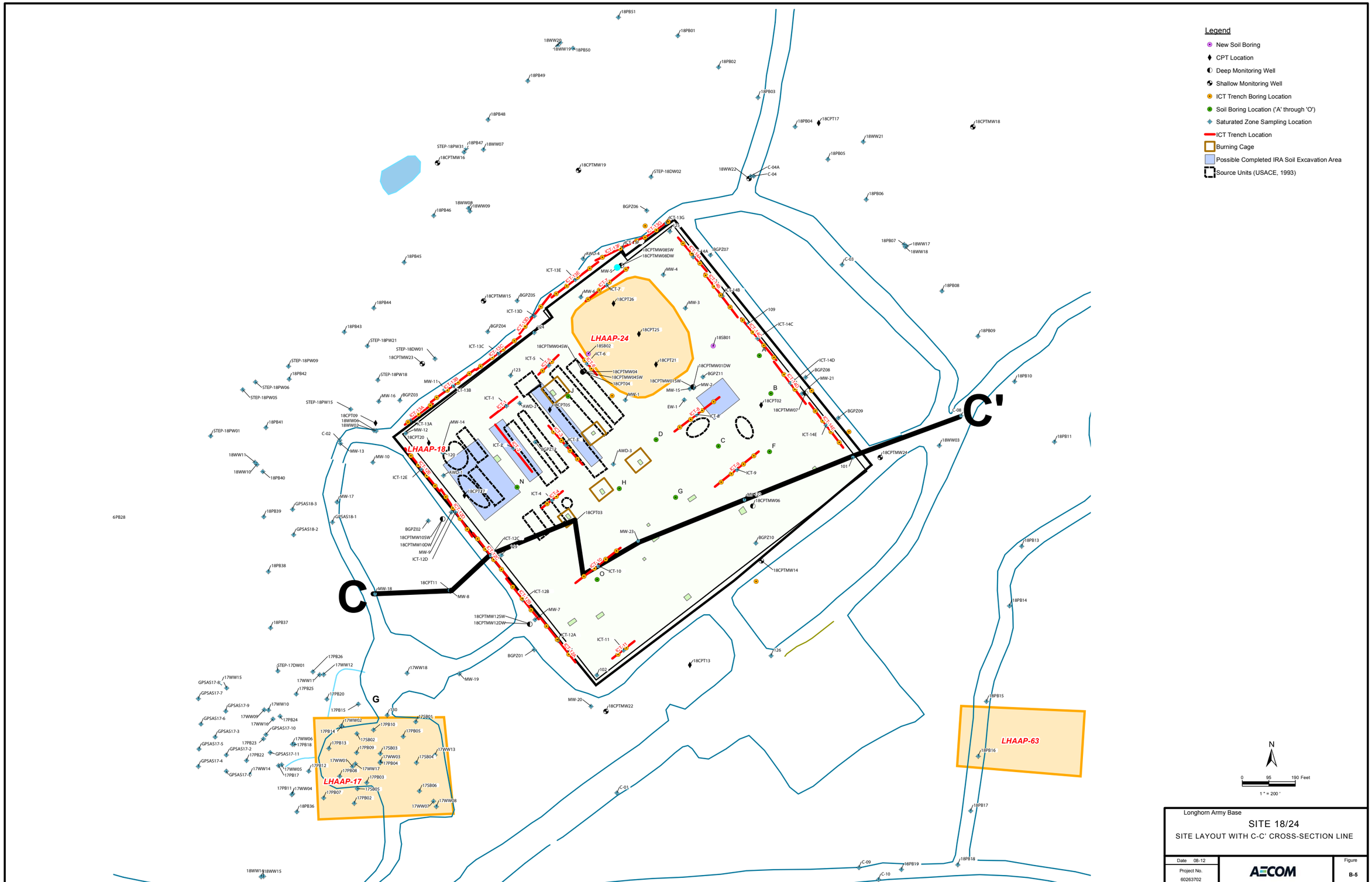
AECOM

Longhorn Army Ammunition Plant
Marshall, TX

LHAAP 18/24

Cross Section B-B'

PROJECT NO.	DRAWN BY:	DATE:	FIGURE:
60274185	TT	10/04/2013	B-4



Longhorn Army Base

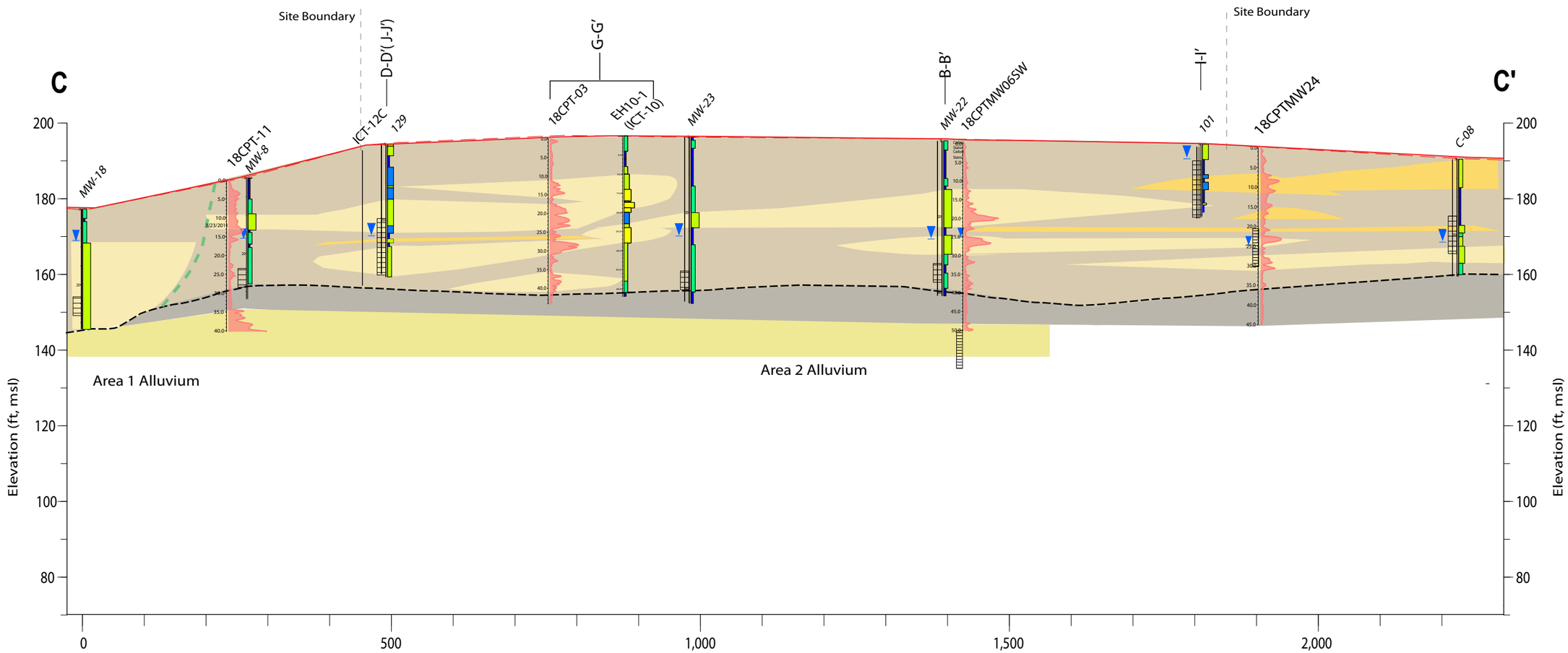
SITE 18/24

SITE LAYOUT WITH C-C' CROSS-SECTION LINE

Date 08-12	AECOM	Figure
Project No. 60263702		B-5

File: W:\work\60263702\GIS\Project\ESS Cross Section Base Map.mxd
Date: Wednesday, September 18, 2013 11:15:05 AM

Cross-Section C-C'



Down-hole Data Legend

Monitoring Well Data Explanation

Groundwater Level and Date Collected May 2013

Monitoring Well Screen

CPT

Tip Resistance Curve

Lithofacies

Fill Material (coarse)

Sand Lithofacies

Channel and point bar deposits

Levee and splay deposits

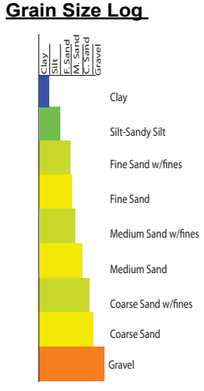
Wilcox Fm.marine and deltaic sands (Eocene)

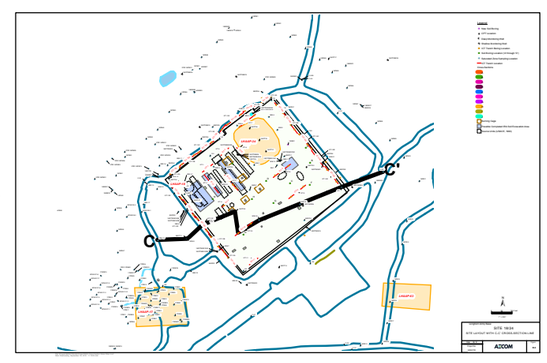
Silt/Clay Lithofacies

Fine overbank deposition (flood plain silts and clays)

Wilcox Fm.marine and deltaic clays and silts (Eocene)

Grain Size Log

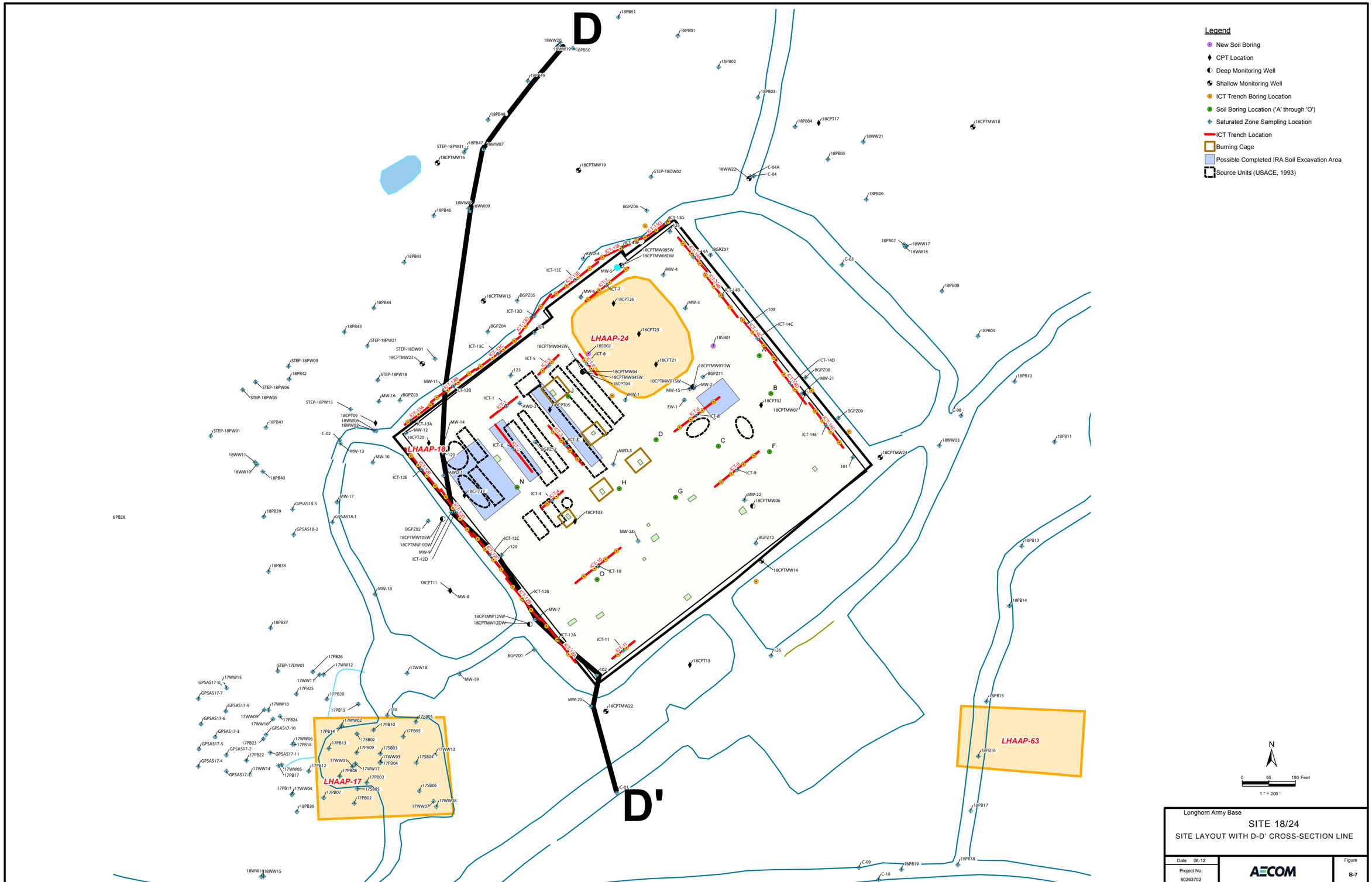




Erosional Contact between Area 1 and 2 Alluvium

Erosional Contact alluvium and Wilcox

AECOM	Longhorn Army Ammunition Plant Marshall, TX		
	LHAAP 18/24 Cross Section C-C'		
PROJECT NO. 60274185	DRAWN BY: TT	DATE: 10/04/2013	Figure B-6



Longhorn Army Base

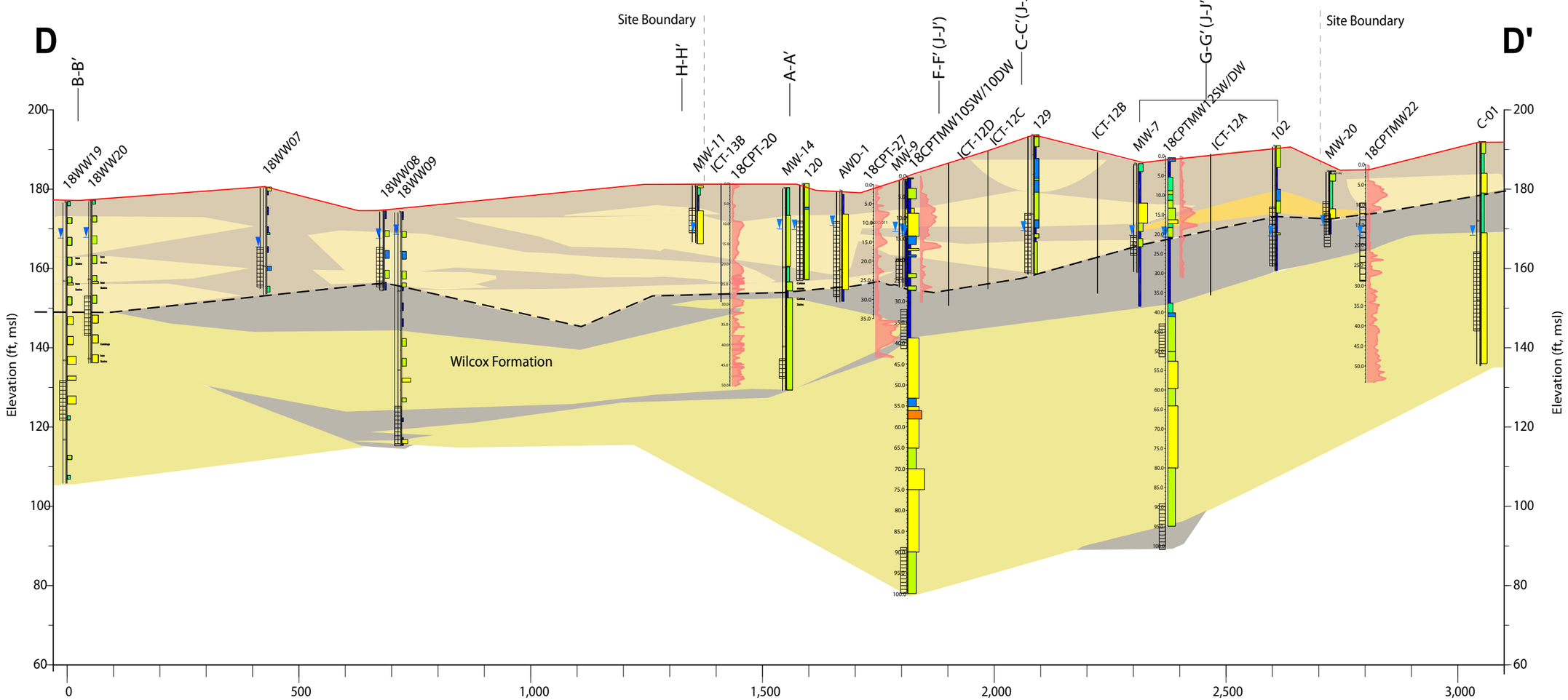
SITE 18/24

SITE LAYOUT WITH D-D' CROSS-SECTION LINE

Date 08-12	AECOM	Figure
Project No. 60263702		B-7

File: W:\work\60263702\GIS\Project\ESS Cross Section Base Map.mxd
Date: Wednesday, September 18, 2013 11:15:05 AM

Cross-Section D-D'



Down-hole Data Legend

Monitoring Well Data Explanation

Groundwater Level and Date Collected May 2013

Monitoring Well Screen

CPT

Tip Resistance Curve

Lithofacies

Fill Material (coarse)

Sand Lithofacies

Channel and point bar deposits

Levee and splay deposits

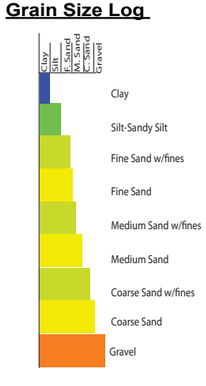
Wilcox Fm.marine and deltaic sands (Eocene)

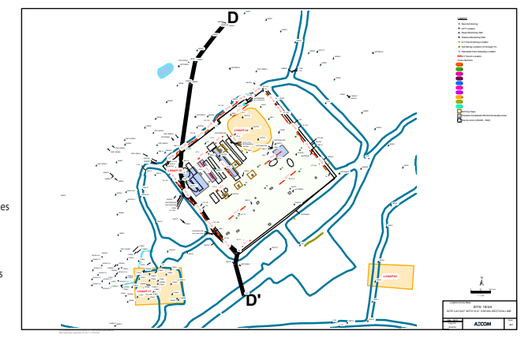
Silt/Clay Lithofacies

Fine overbank deposition (flood plain silts and clays)

Wilcox Fm.marine and deltaic clays and silts (Eocene)

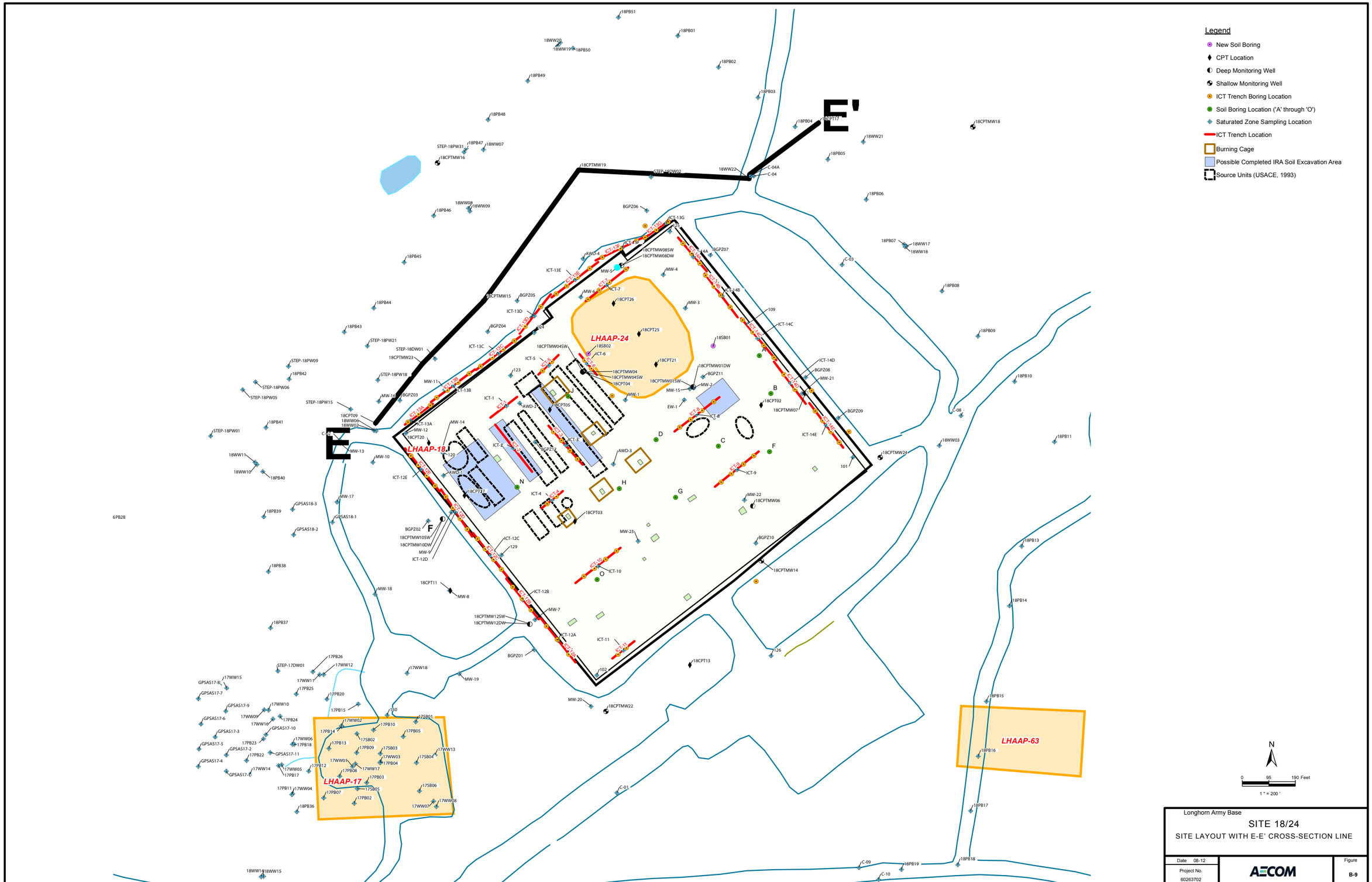
Grain Size Log





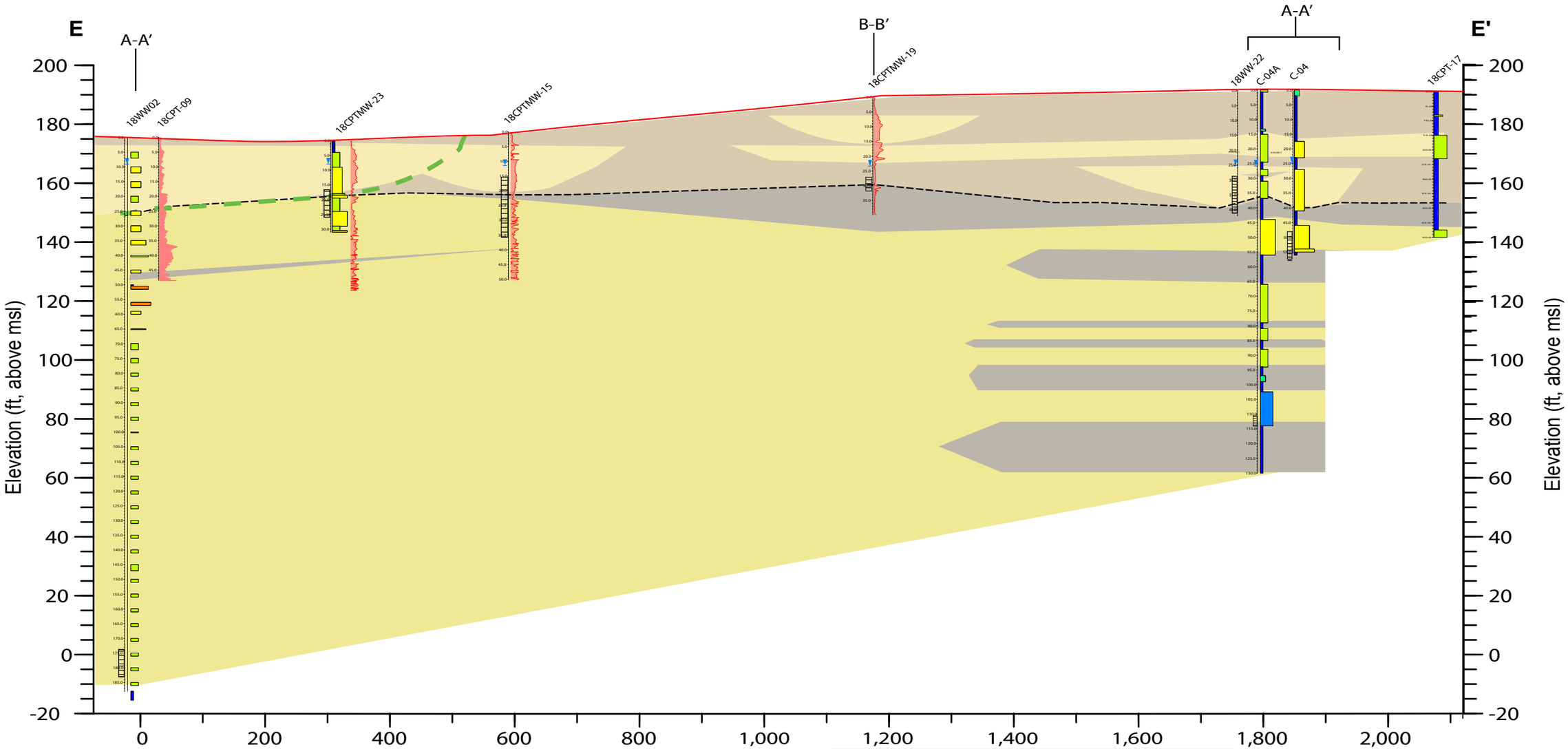
Erosional Contact alluvium and Wilcox

AECOM	Longhorn Army Ammunition Plant Marshall, TX		
LHAAP 18/24			
Cross Section D-D'			
PROJECT NO. 60274185	DRAWN BY: TT	DATE: 10/04/2013	FIGURE B-8



File: W:\work\60263702\GIS\Project\ESS Cross Section Base Map.mxd
Date: Wednesday, September 18, 2013 11:15:05 AM

Cross-Section E-E'



Down-hole Data Legend

Monitoring Well Data Explanation

Groundwater Level and Date Collected May 2013

Monitoring Well Screen

CPT

Tip Resistance Curve

Lithofacies

Fill Material (coarse)

Sand Lithofacies

Channel and point bar deposits

Levee and splay deposits

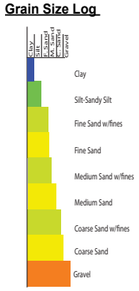
Wilcox Fm.marine and deltaic sands (Eocene)

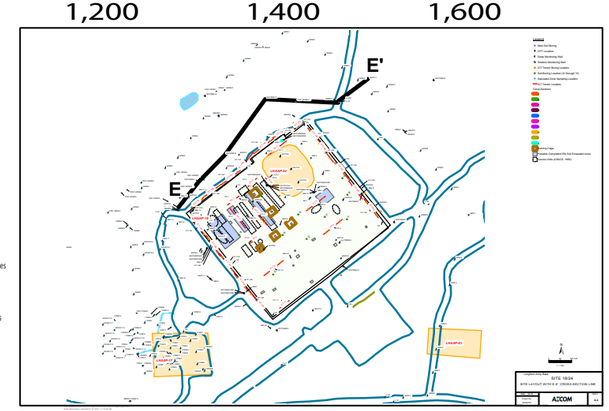
Silt/Clay Lithofacies

Fine overbank deposition (flood plain silts and clays)

Wilcox Fm.marine and deltaic clays and silts (Eocene)

Grain Size Log





Erosional Contact between Area 1 and 2 Alluvium

Erosional Contact alluvium and Wilcox

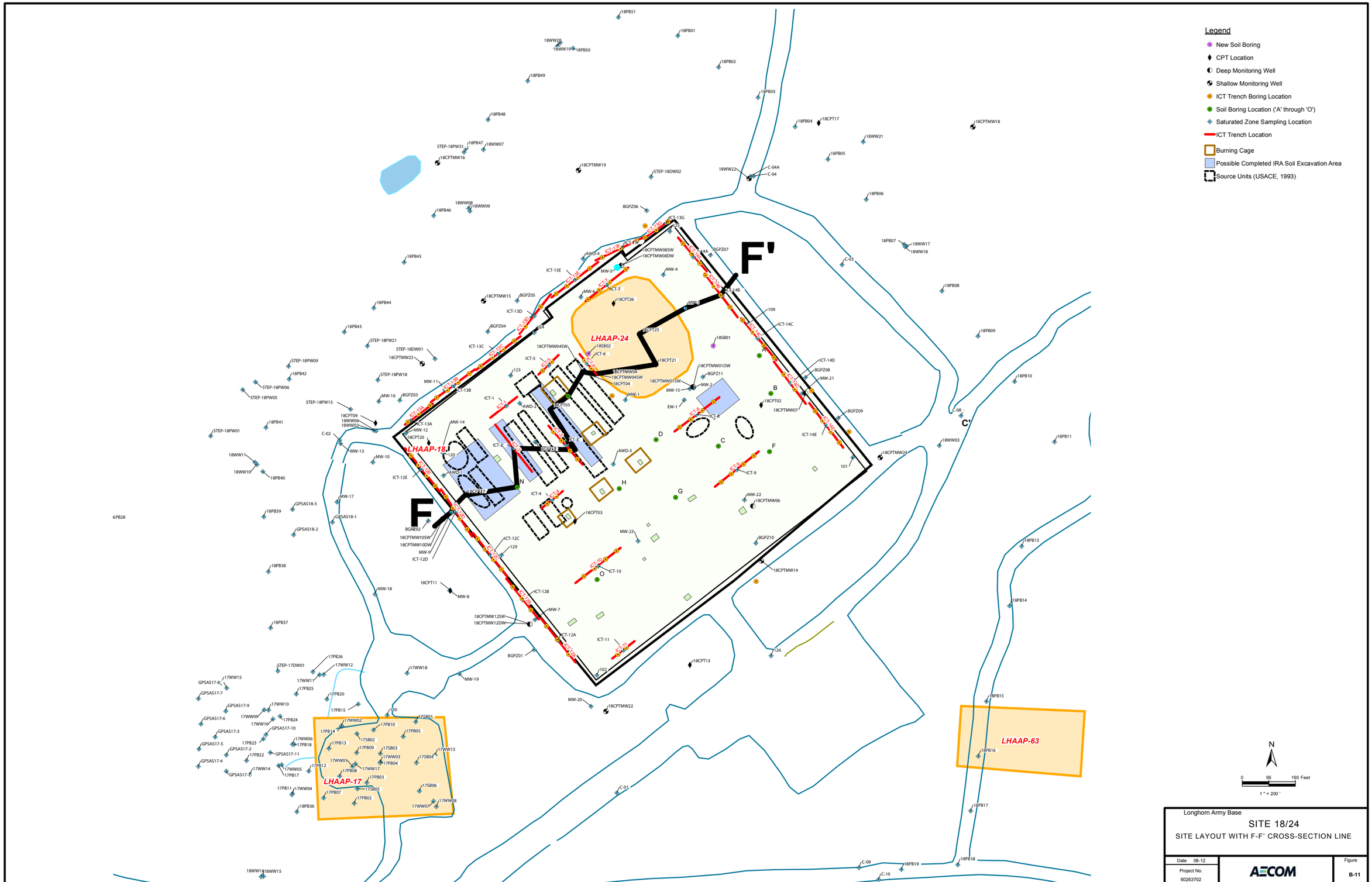
AECOM

Longhorn Army Ammunition Plant
Marshall, TX

LHAAP 18/24

Cross Section E-E'

PROJECT NO.	DRAWN BY:	DATE:	FIGURE
60274185	TT	10/04/2013	B-10



Longhorn Army Base

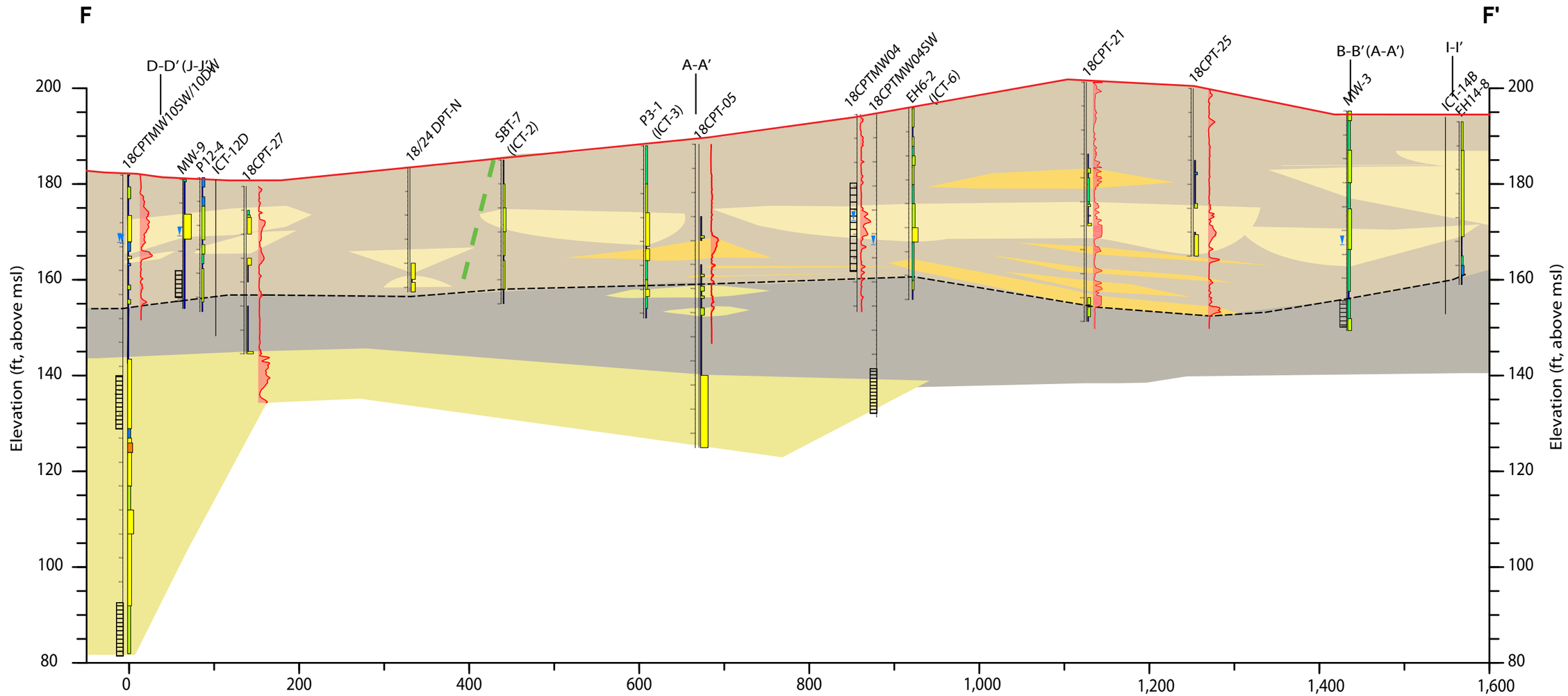
SITE 18/24

SITE LAYOUT WITH F-F' CROSS-SECTION LINE

Date 08-12	AECOM	Figure
Project No. 60263702		B-11

File: W:\work\60263702\GIS\Project\ESS Cross Section Base Map.mxd
Date: Wednesday, September 18, 2013 11:15:05 AM

Cross-Section F-F'

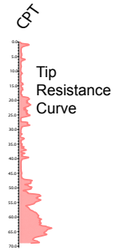


Down-hole Data Legend

Monitoring Well Data Explanation

Groundwater Level and Date Collected May 2013

Monitoring Well Screen



Lithofacies

Fill Material (coarse)

Sand Lithofacies

Channel and point bar deposits

Levee and splay deposits

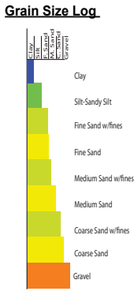
Wilcox Fm.marine and deltaic sands (Eocene)

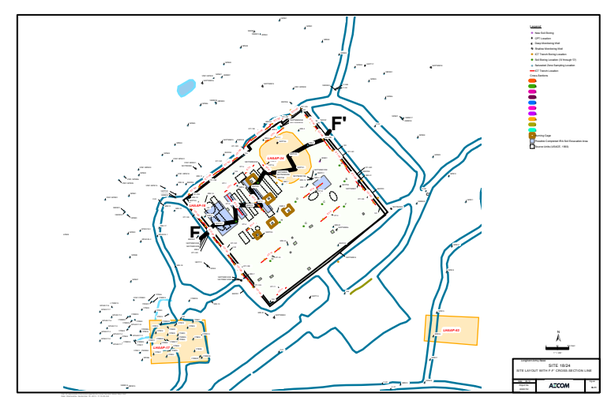
Silt/Clay Lithofacies

Fine overbank deposition (flood plain silts and clays)

Wilcox Fm.marine and deltaic clays and silts (Eocene)

Grain Size Log

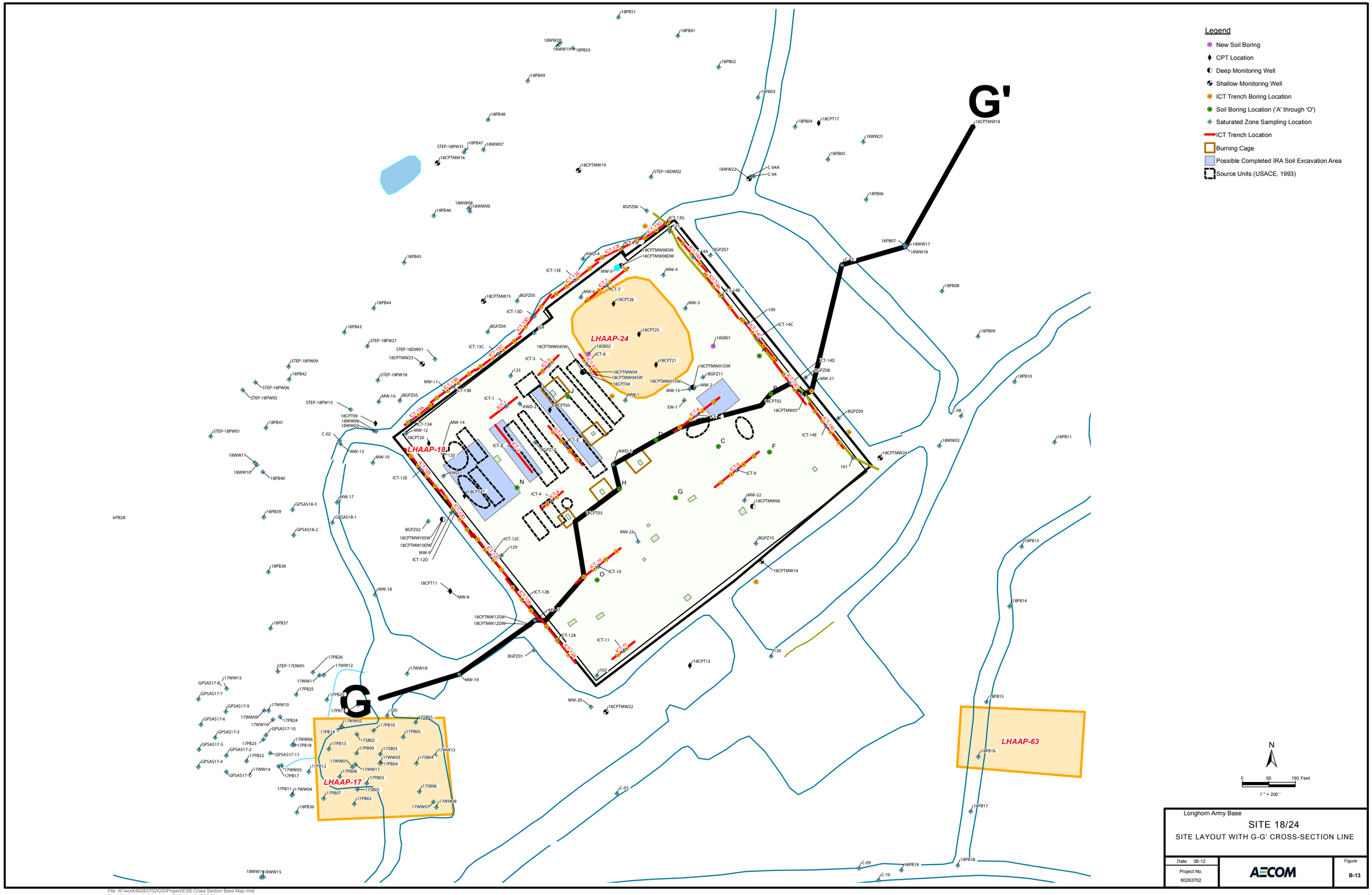




Erosional Contact between Area 1 and 2 Alluvium

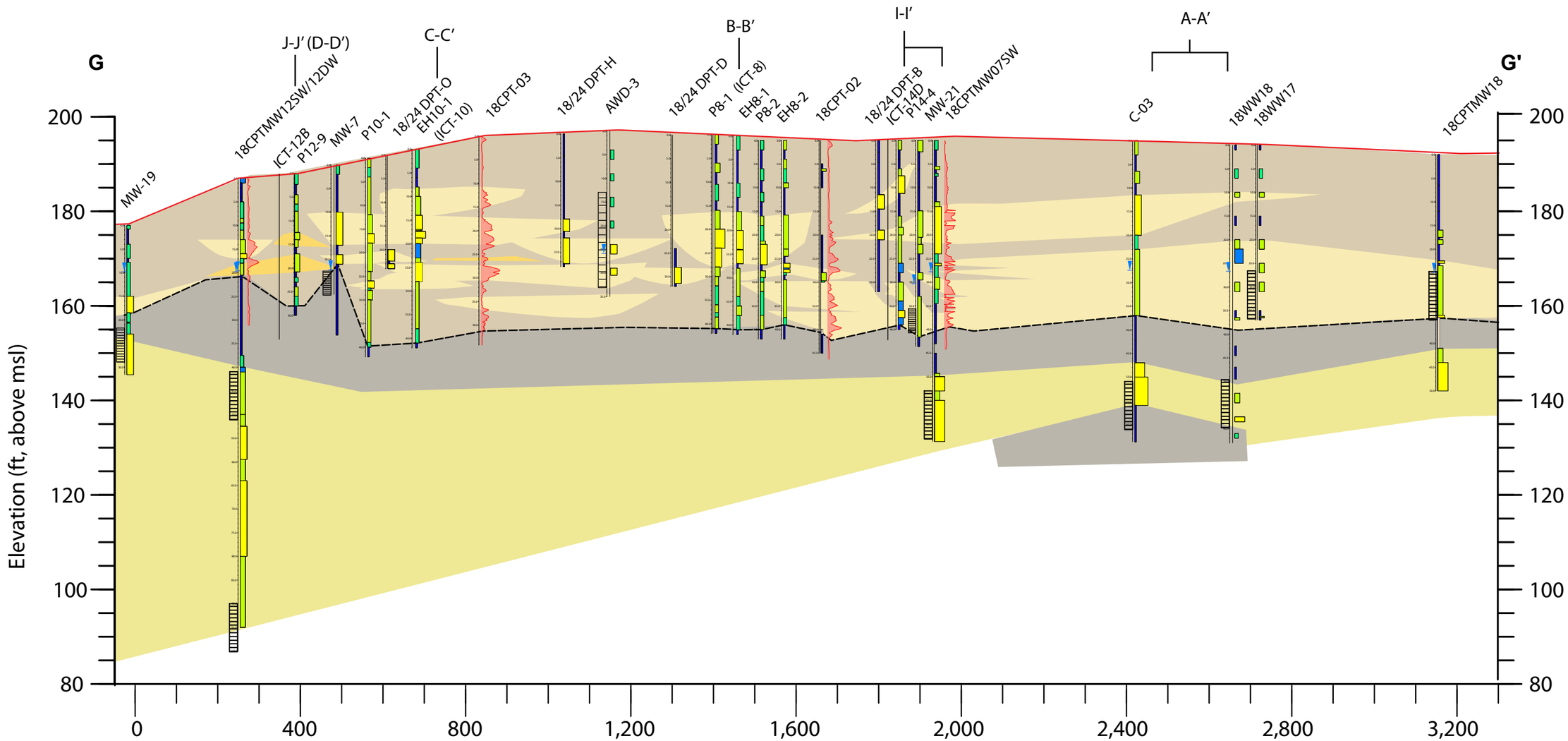
Erosional Contact alluvium and Wilcox

AECOM	Longhorn Army Ammunition Plant Marshall, TX		
LHAAP 18/24 Cross Section F-F'			
PROJECT NO. 60274185	DRAWN BY: TT	DATE: 10/04/2013	FIGURE B-12



File: W:\work\60263702\GIS\Project\ESS Cross Section Base Map.mxd
Date: Wednesday, September 18, 2013 11:15:05 AM

Cross-Section G-G'



Down-hole Data Legend

Monitoring Well Data Explanation

Groundwater Level and Date Collected May 2013

Monitoring Well Screen

CPT

Tip Resistance Curve

Lithofacies

Fill Material (coarse)

Sand Lithofacies

Channel and point bar deposits

Levee and splay deposits

Wilcox Fm.marine and deltaic sands (Eocene)

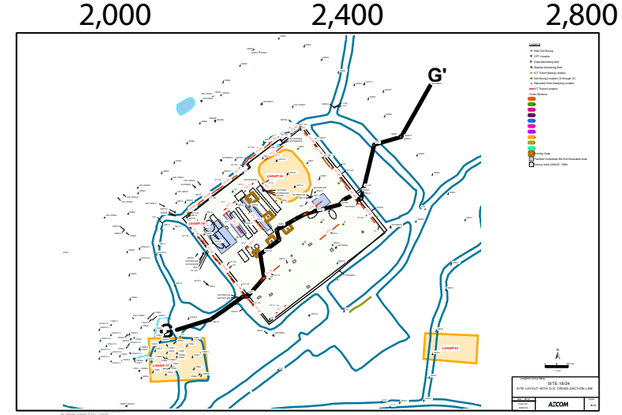
Silt/Clay Lithofacies

Fine overbank deposition (flood plain silts and clays)

Wilcox Fm.marine and deltaic clays and silts (Eocene)

Grain Size Log

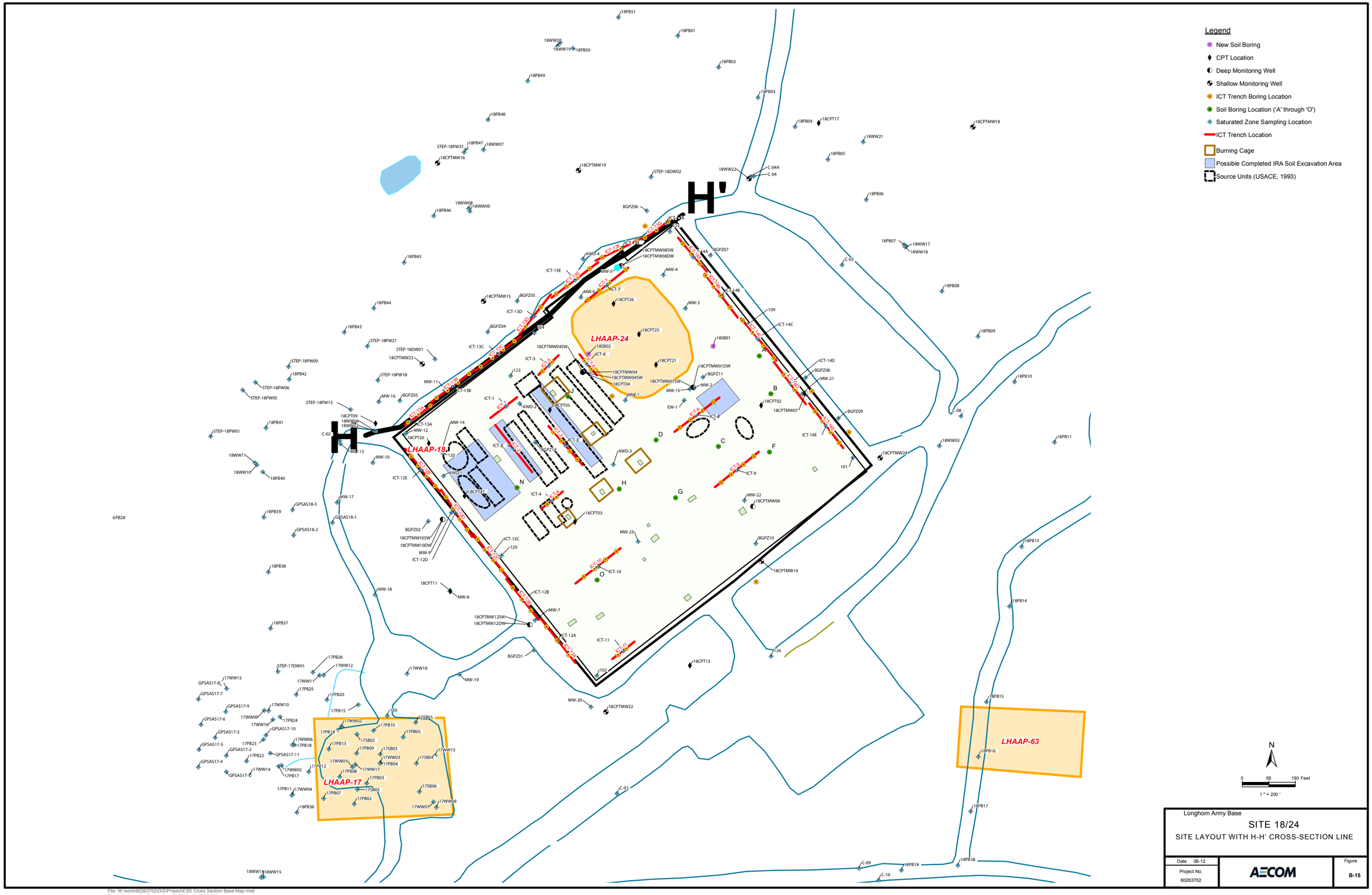
Clay
Silt-Sandy Silt
Fine Sand w/fines
Fine Sand
Medium Sand w/fines
Medium Sand
Coarse Sand w/fines
Coarse Sand
Gravel



Erosional Contact between Area 1 and 2 Alluvium

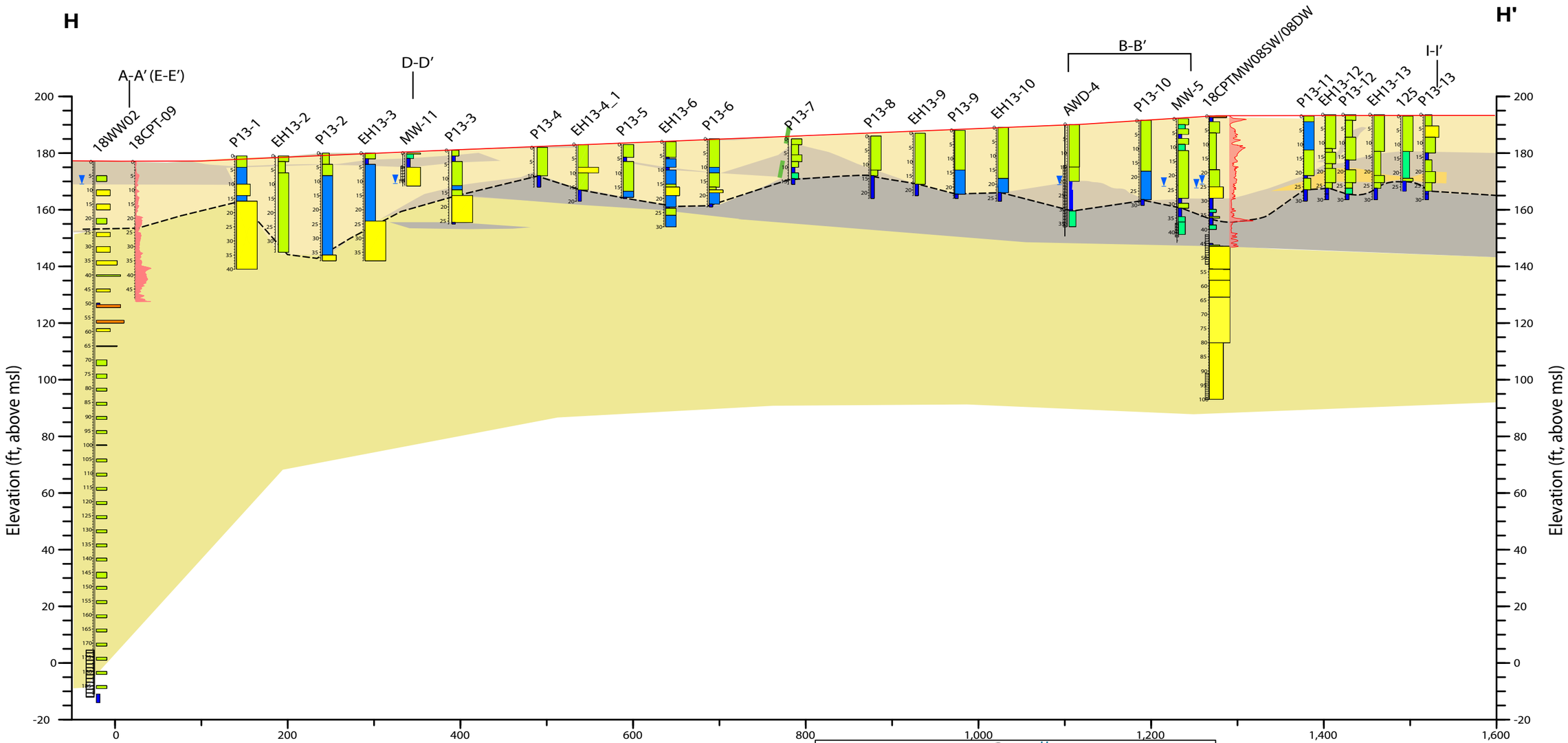
Erosional Contact alluvium and Wilcox

AECOM	Longhorn Army Ammunition Plant Marshall, TX		
LHAAP 18/24 Cross Section G-G'			
PROJECT NO. 60274185	DRAWN BY: TT	DATE: 10/04/2013	Figure B-14



File: W:\work\60263702\GIS\Project\ESS Cross Section Base Map.mxd
Date: Wednesday, September 18, 2013 11:15:05 AM

Cross-Section H-H'



Down-hole Data Legend

Monitoring Well Data Explanation

Groundwater Level and Date Collected May 2013

Monitoring Well Screen

CPT

Tip Resistance Curve

Lithofacies

Fill Material (coarse)

Sand Lithofacies

Channel and point bar deposits

Levee and splay deposits

Wilcox Fm.marine and deltaic sands (Eocene)

Silt/Clay Lithofacies

Fine overbank deposition (flood plain silts and clays)

Wilcox Fm.marine and deltaic clays and silts (Eocene)

Grain Size Log

Clay

Silt-Sandy Silt

Fine Sand w/fines

Fine Sand

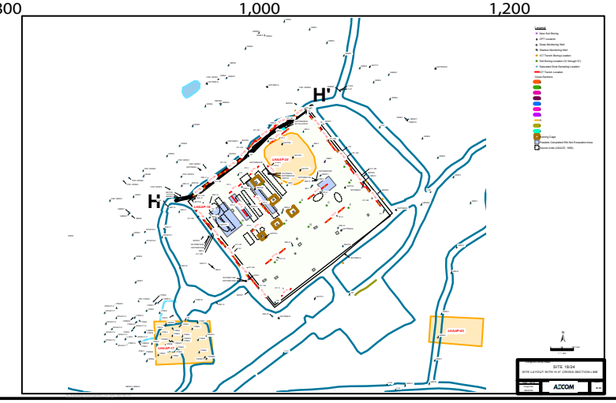
Medium Sand w/fines

Medium Sand

Coarse Sand w/fines

Coarse Sand

Gravel



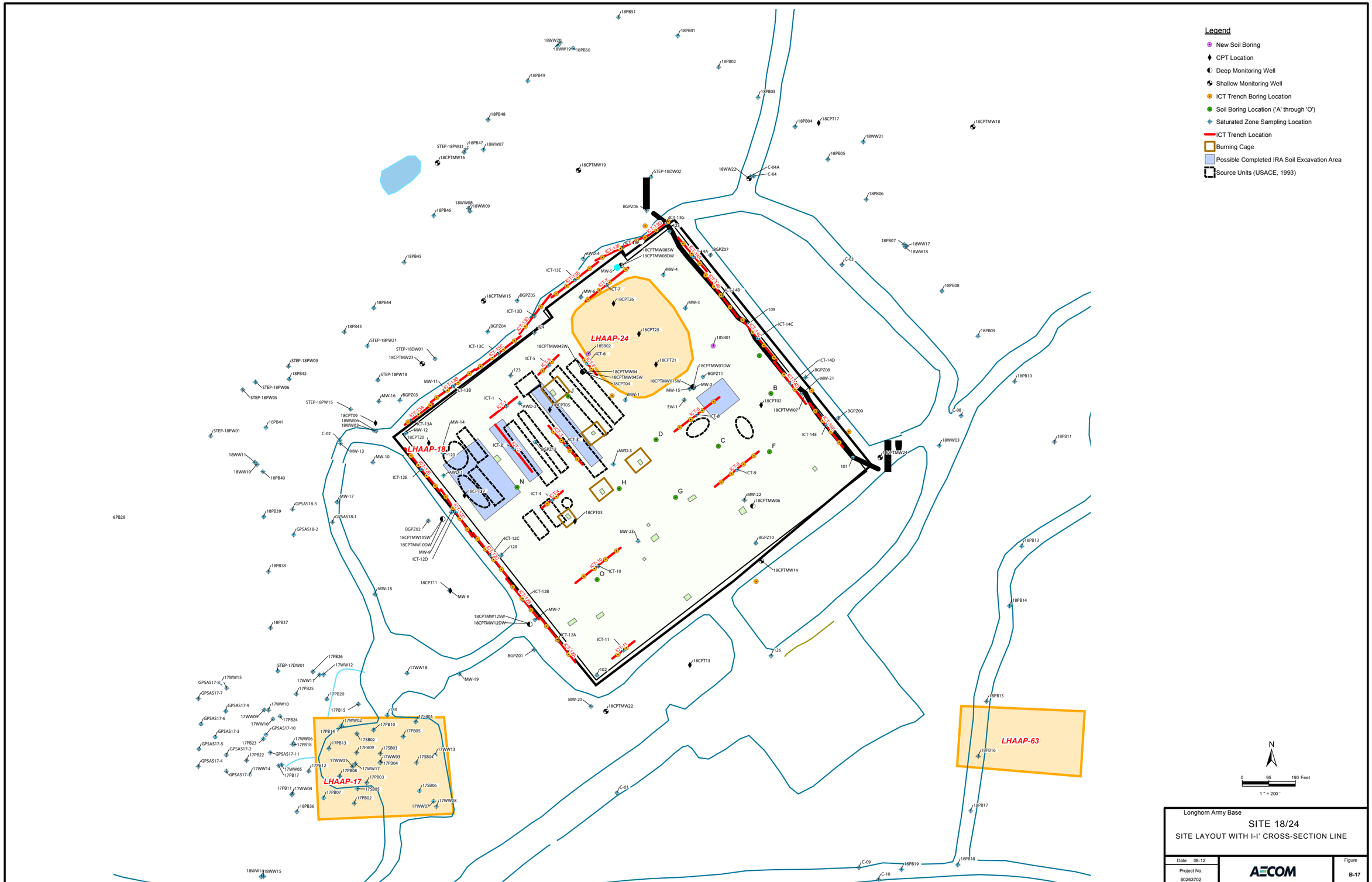
AECOM

Longhorn Army Ammunition Plant
Marshall, TX

LHAAP 18/24

Cross Section H-H'

PROJECT NO.	DRAWN BY:	DATE:	FIGURE
60274185	TT	10/04/2013	B-16



Longhorn Army Base

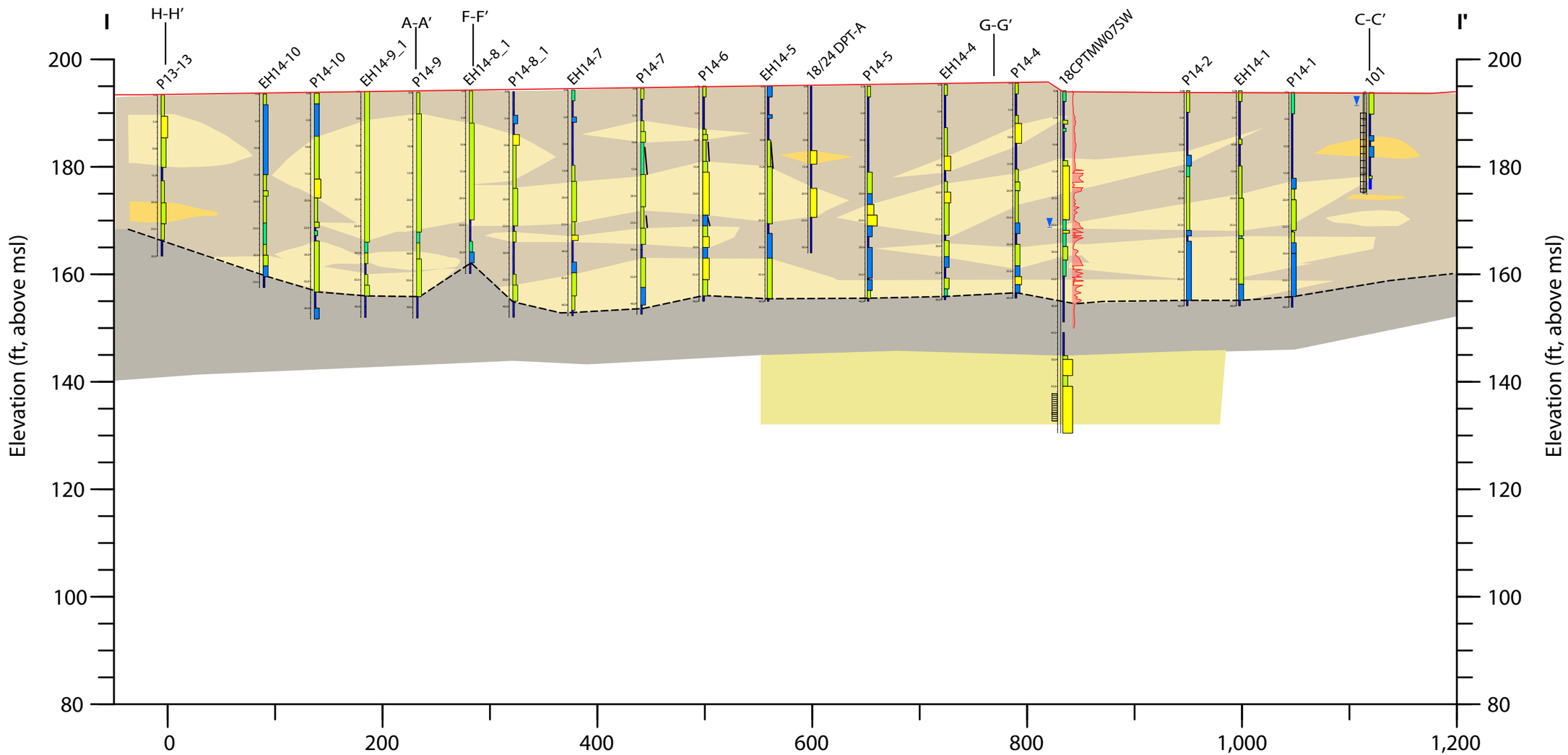
SITE 18/24

SITE LAYOUT WITH I-I' CROSS-SECTION LINE

Date 08-12	AECOM	Figure
Project No. 60263702		B-17

File: W:\work\60263702\GIS\Project\ESS Cross Section Base Map.mxd
Date: Wednesday, September 18, 2013 11:15:05 AM

Cross-Section I-I'



Down-hole Data Legend

Monitoring Well Data Explanation

Groundwater Level and Date Collected May 2013

Monitoring Well Screen

CPT

Tip Resistance Curve

Lithofacies

Fill Material (coarse)

Sand Lithofacies

Channel and point bar deposits

Levee and splay deposits

Wilcox Fm.marine and deltaic sands (Eocene)

Silt/Clay Lithofacies

Fine overbank deposition (flood plain silts and clays)

Wilcox Fm.marine and deltaic clays and silts (Eocene)

Grain Size Log

Clay

Silt-Sandy Silt

Fine Sand w/fines

Fine Sand

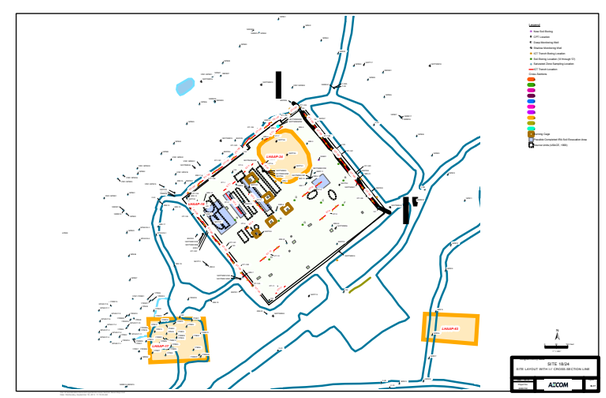
Medium Sand w/fines

Medium Sand

Coarse Sand w/fines

Coarse Sand

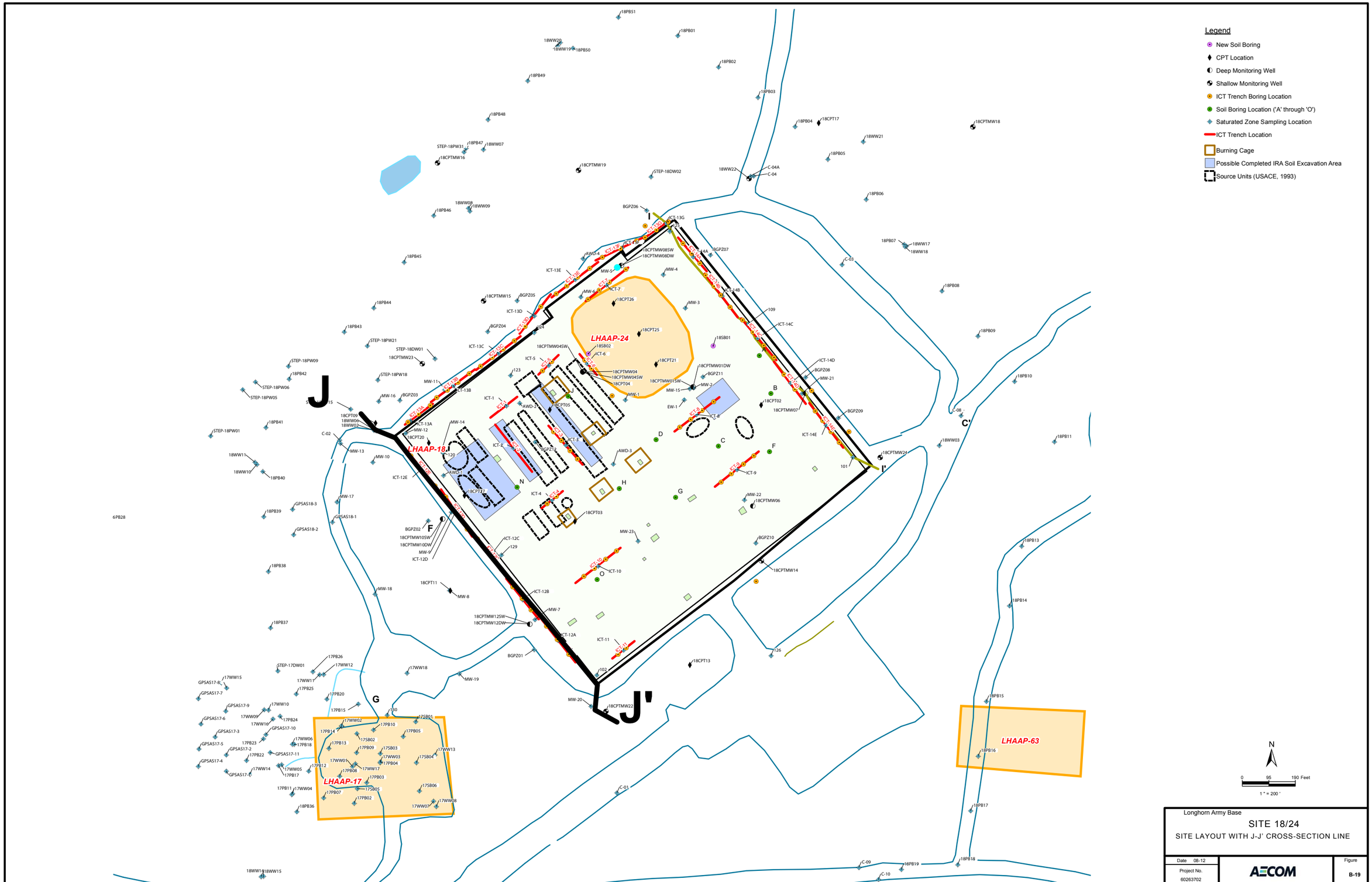
Gravel



Erosional Contact between Area 1 and 2 Alluvium

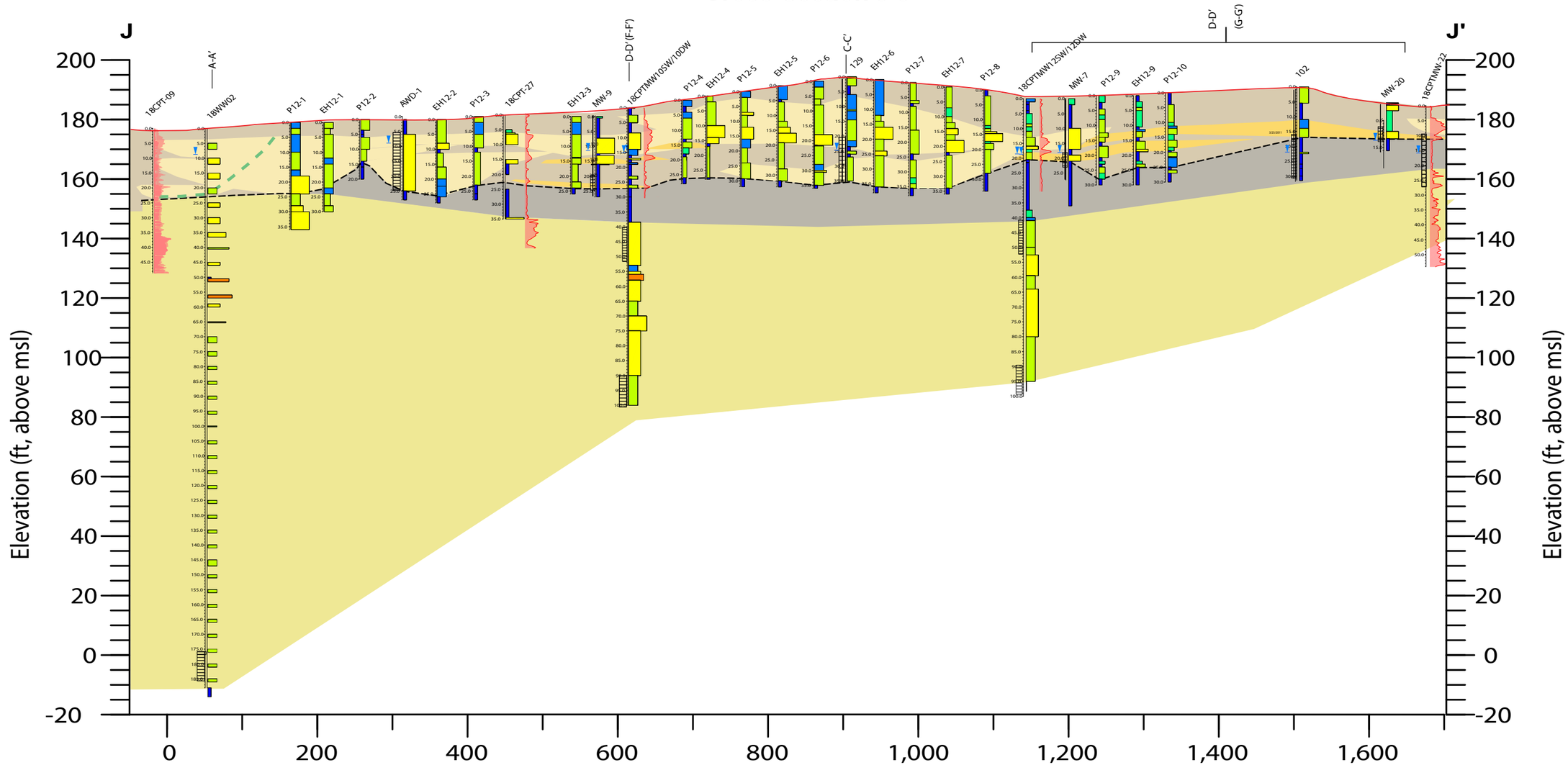
Erosional Contact alluvium and Wilcox

AECOM	Longhorn Army Ammunition Plant Marshall, TX		
LHAAP 18/24 Cross Section I-I'			
PROJECT NO. 60274185	DRAWN BY: TT	DATE: 10/04/2013	FIGURE B-18



File: W:\work\60263702\GIS\Project\ESS Cross Section Base Map.mxd
Date: Wednesday, September 18, 2013 11:15:05 AM

Cross-Section J-J'



Down-hole Data Legend

Monitoring Well Data Explanation

Groundwater Level and Date Collected MAY 2013

Monitoring Well Screen

CPT

Tip Resistance Curve

Lithofacies

Fill Material (coarse)

Sand Lithofacies

Channel and point bar deposits

Levee and splay deposits

Wilcox Fm.marine and deltaic sands (Eocene)

Silt/Clay Lithofacies

Fine overbank deposition (flood plain silts and clays)

Wilcox Fm.marine and deltaic clays and silts (Eocene)

Grain Size Log

Clay

Silt-Sandy Silt

Fine Sand w/fines

Fine Sand

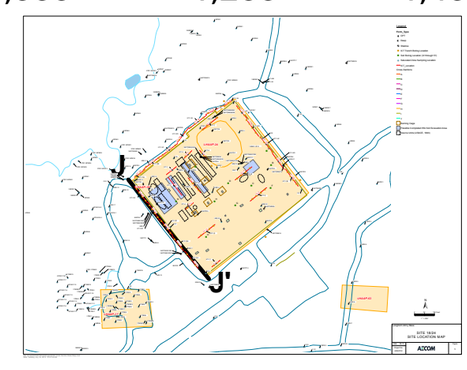
Medium Sand w/fines

Medium Sand

Coarse Sand w/fines

Coarse Sand

Gravel



Erosional Contact between Area 1 and 2 Alluvium

Erosional Contact alluvium and Wilcox

AECOM

Longhorn Army Ammunition Plant
Marshall, TX

LHAAP 18/24

Cross Section J-J'

PROJECT NO.	DRAWN BY:	DATE:	FIGURE:
60274185	TT	10/04/2013	B-20

APPENDIX C: Groundwater Sampling Logs

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: 18CPTM01SW	Date: 5/16/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611Ces/CeVR	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-40	
WELL INFO	Casing I.D. (in) [a]: 411	Static Water Level Reading (ft) [c]: 27.95	Weather Conditions: Cloudy 70°F
	Total Well Depth (ft) [d]: 63.00	Screened Interval/Pump placement: 53-63 58.00	Condition of Well/Remarks: New well no pad yet

CASING INFO												
	Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
	Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-16-13	0955	28.00	100	20.72	9.61	3.54	1.61	11.1	43	
5-16-13	1000	28.02	100	22.52	11.81	3.24	0.57	11.5	-4	
5-16-13	1005	28.04	100	22.73	11.91	3.16	0.00	9.7	-39	
5-16-13	1010	28.06	100	22.86	11.94	3.13	0.00	9.1	-60	
5-16-13	1015	28.08	100	23.03	11.96	3.11	0.00	5.6	-89	
5-16-13	1020	28.10	100	23.09	11.97	3.10	0.00	4.2	-100	
5-16-13	1025	28.11	100	23.02	11.98	3.09	0.00	8.7	-117	
5-16-13	1030	28.12	100	22.98	11.99	3.10	0.00	9.0	-120	
5-16-13	1035	28.13	100	22.89	11.99	3.09	0.00	9.0	-121	
5-16-13	1040	28.13	100	22.90	11.99	3.09	0.00	8.5	-122	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18CPTMW01SW TIME: 1040

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	NO	Pump	VOC - 8260
1-500 ml plastic	HNO3	NO	Pump	Metals - SW 6000/7000
1-1 LITER AMBER	NA	NO	Pump	SVOC - 8270
1-250 ml plastic	NA	NO	Pump	Perchlorate - 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18124	LocID: 18CPTMW01DW	Date: 5/16/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Beesing Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 11/ces/level	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: ~~[illegible]~~ 8P-SPU-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 54.90	Weather Conditions: Cloudy 75°F
	Total Well Depth (ft) [d]: 98.00	Screened Interval/Pump placement: 88-97.5 93.00	Condition of Well/Remarks: New well No pad yet

CASING INFO												
	Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
	Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-16-13	1330	54.90	100	33.88	9.64	.797	1.96	111	97	
5-16-13	1335	54.91	100	28.98	8.15	.874	1.03	123	133	
5-16-13	1340	54.92	100	27.00	7.83	.903	0.87	133	145	
5-16-13	1345	54.93	100	25.77	7.67	.916	0.82	132	151	
5-16-13	1350	54.94	100	25.13	7.55	.925	0.74	132	155	
5-16-13	1355	54.95	100	24.80	7.49	.930	0.67	130	157	
5-16-13	1400	54.95	100	24.75	7.48	.930	0.65	130	158	
5-16-13	1405	54.95	100	24.70	7.48	.929	0.65	130	157	
5-16-13	1410	54.96	100	24.68	7.47	.930	0.66	130	159	
5-16-13	1415	54.96	100	24.65	7.47	.930	0.65	130	158	
5-16-13	1420	54.96	100	24.62	7.47	.930	0.65	129	158	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18CPTMW01DW-051613 TIME: 1420

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO No

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	NO	Pump	VOC - 8260
1-500 ml plastic	HNO3	Yes	"	metals - SW6000/7000
1-1 Liter ~~plastic~~ Amber	NA	NO	"	SVOC - 8270
1-250 ml plastic	NA	NO	"	perchlorate - 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: 18CPTMW04SW	Date: 5/16/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Beusing Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 511 cos/cevr	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 28.10	Weather Conditions: Cloudy/Rainy 72°F
	Total Well Depth (ft) [d]: 63.00	Screened Interval/Pump placement: 53-62.5 57.25	Condition of Well/Remarks: New well no pad yet

CASING INFO												
	Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
	Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-16-13	1600	28.11	100	23.93	7.51	.982	2.86	15.7	149	
5-16-13	1605	28.13	100	23.88	10.29	1.46	0.85	14.6	68	
5-16-13	1610	28.15	100	24.04	10.25	1.43	0.46	14.1	59	
5-16-13	1615	28.17	100	24.13	10.21	1.41	0.05	12.5	52	
5-16-13	1620	28.19	100	24.37	10.07	1.37	0.00	12.4	50	
5-16-13	1625	28.21	100	24.45	10.06	1.36	0.00	12.7	45	
5-16-13	1630	28.23	100	24.53	10.04	1.34	0.00	13.4	40	
5-16-13	1635	28.24	100	24.54	10.02	1.33	0.00	13.1	36	
5-16-13	1640	28.25	100	24.48	10.00	1.31	0.00	13.7	32	
5-16-13	1645	28.26	100	24.40	9.98	1.30	0.00	13.8	30	
5-16-13	1650	28.27	100	24.37	9.97	1.29	0.00	13.9	30	
5-16-13	1655	28.28	100	24.35	9.97	1.29	0.00	13.8	29	
5-16-13	1700	28.29	100	24.33	9.97	1.29	0.00	13.9	29	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: 18CPTMW04SW-051613 TIME: 1700

DUPLICATE (D): YES/NO Yes
MATRIX SPIKE (MS): YES/NO NO
MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
6-40 ml glass	HCL	NO	Pump	VOC- 8260
2-500 ml plastic	HNO3	Yes	Pump	metals - SW6000/7000
2-1 LITER AMBER	NA	NO	Pump	SVOC - 8270
2-250 ml plastic	NA	NO	Pump	perchlorate - 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: 18CPTMW04	Date: 5/17/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID: 611Gs/Cevic	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spK-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 23.00	Weather Conditions: Cloudy/Humid 68°F
	Total Well Depth (ft) [d]: 34.00	Screened Interval/Pump placement: 24-33.5 28.25	Condition of Well/Remarks: New well No pad yet

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-17-13	0750	23.04	100	21.89	6.42	2.19	1.85	7.8	226	
5-17-13	0755	23.07	100	21.82	6.01	2.19	0.98	5.2	216	
5-17-13	0800	23.09	100	21.82	5.97	2.19	0.79	3.7	202	
5-17-13	0805	23.11	100	21.86	5.96	2.19	0.74	3.0	184	
5-17-13	0810	23.13	100	21.96	5.95	2.19	0.65	2.9	145	
5-17-13	0815	23.15	100	21.95	5.94	2.19	0.60	2.9	118	
5-17-13	0820	23.17	100	22.00	5.94	2.20	0.57	2.7	115	
5-17-13	0825	23.18	100	22.05	5.93	2.20	0.54	2.5	114	
5-17-13	0830	23.19	100	22.07	5.93	2.20	0.55	2.4	113	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: 18CPTMW04-051713 TIME: 0830

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	NO	Pump	VOC-8260
1-500 ml plastic	HNO3	NO	"	metals-SW6000/7000
1-1 Liter Amber	NA	NO	"	SVOC-8270
1-250 ml plastic	NA	NO	"	perchlorate-6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: 18CPT MW06	Date: 5/17/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: Hi Res/Level	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 28.40	Weather Conditions: Cloudy 70°F
	Total Well Depth (ft) [d]: 64.00	Screened Interval/Pump placement: 54-63.5 58.25	Condition of Well/Remarks: New well No pad yet

CASING INFO												
	Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
	Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-17-13	0925	28.43	100	23.16	11.82	7.29	1.42	6.9	-27	
5-17-13	0930	28.45	100	22.94	11.93	7.11	0.93	6.9	-61	
5-17-13	0935	28.46	100	23.00	11.94	6.98	0.78	8.0	-74	
5-17-13	0940	28.47	100	23.30	11.93	6.84	0.69	9.0	-85	
5-17-13	0945	28.48	100	23.48	11.91	6.71	0.60	11.8	-92	
5-17-13	0950	28.48	100	23.65	11.90	6.62	0.52	12.3	-95	
5-17-13	0955	28.49	100	23.72	11.90	6.48	0.47	11.9	-98	
5-17-13	1000	28.49	100	23.79	11.89	6.34	0.41	12.3	-101	
5-17-13	1005	28.50	100	23.88	11.88	6.26	0.38	12.5	-102	
5-17-13	1010	28.50	100	24.10	11.87	6.23	0.37	12.7	-103	
5-17-13	1015	28.51	100	24.15	11.87	6.22	0.34	12.3	-104	
5-17-13	1020	28.51	100	24.20	11.86	6.20	0.35	12.4	-104	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: 18CPTMW06-051713 TIME: 1020

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
2-40 ml glass	HCl	NO	Pump	VOC - 8260
1-500 ml plastic	HNO3	YES	"	metals - BW6000/7000
1-1 Liter Amber	NA	NO	"	SVOC - 8270
1-250 ml plastic	NA	NO	"	paraNorate - 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: 18CPTMW07	Date: 5/14/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Beusinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 611 ces/cem	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-AP	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 29.63	Weather Conditions: Clear 66°F
	Total Well Depth (ft) [d]: 67.60	Screened Interval/Pump placement: 54.4-63.9 59.25	Condition of Well/Remarks: New well needs paint

CASING INFO												
	Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
	Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-14-13	0910	29.68	100	19.19	11.02	1.87	1.49	22.5	42	
5-14-13	0915	29.68	100	19.60	11.36	1.86	0.68	23.0	18	
5-14-13	0920	29.68	100	19.83	11.42	1.84	0.19	49.1	4	
5-14-13	0925	29.68	100	19.99	11.44	1.82	0.03	56.1	-4	
5-14-13	0930	29.68	100	20.03	11.46	1.80	0.00	46.4	-8	
5-14-13	0935	29.68	100	20.06	11.44	1.79	0.00	43.8	-9	
5-14-13	0940	29.68	100	20.18	11.44	1.79	0.00	43.4	-14	
5-14-13	0945	29.68	100	20.25	11.44	1.78	0.00	27.5	-20	
5-14-13	0950	29.68	100	20.31	11.45	1.78	0.00	21.4	-24	
5-14-13	0955	29.68	100	20.45	11.45	1.78	0.00	16.5	-30	
5-14-13	1000	29.68	100	20.52	11.46	1.77	0.00	15.3	-35	
5-14-13	1005	29.68	100	20.61	11.44	1.76	0.00	13.4	-39	
5-14-13	1010	29.68	100	20.66	11.41	1.75	0.00	12.5	-43	
5-14-13	1015	29.68	100	20.82	11.41	1.74	0.00	11.3	-47	
5-14-13	1020	29.68	100	20.85	11.41	1.73	0.00	9.9	-49	
5-14-13	1025	29.68	100	20.86	11.40	1.72	0.00	9.7	-50	
5-14-13	1030	29.68	100	20.90	11.40	1.71	0.00	9.3	-51	
5-14-13	1035	29.68	100	20.92	11.40	1.71	0.00	8.6	-51	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18CPTMW07-051413 TIME: 1035

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3- 40 ml glass	HCL	NO	Pump	VOC - 8260
1- 500 ml plastic	HNO3		Pump	Metals - ~~8270~~ SW6000/7000
1- 1 Liter Amber	NA	NO	Pump	SVOC - 8270
1- 250 ml plastic	NA	NO	Pump	Perchlorate - 6850

00122803

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: 18CPTMW08SW	Date: 6/4/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Scott Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611ces/cevr	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4p	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 28.45	Weather Conditions: CLEAR 80°F
	Total Well Depth (ft) [d]: 56.1	Screened Interval/Pump placement: 43.1-52.6 49.00	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
6-4-13	1000	28.48	100	23.19	7.01	1.01	2.82	11.9	70	
6-4-13	1005	28.50	100	24.34	6.24	1.20	1.15	10.5	70	
6-4-13	1010	28.52	100	25.00	6.23	1.19	0.65	8.7	76	
6-4-13	1015	28.54	100	25.91	6.25	1.18	0.42	8.6	78	
6-4-13	1020	28.56	100	26.39	6.25	1.18	0.30	8.4	82	
6-4-13	1025	28.58	100	27.13	6.28	1.18	0.15	8.2	83	
6-4-13	1030	28.60	100	27.87	6.29	1.17	0.00	8.1	84	
6-4-13	1035	28.62	100	27.95	6.29	1.16	0.00	8.0	84	
6-4-13	1040	28.64	100	28.00	6.29	1.16	0.00	7.8	85	
6-4-13	1045	28.66	100	28.12	6.29	1.16	0.00	7.6	85	

Pump Rate: <=0.5 L/min **Drawdown:** <0.33 ft **Measurements:** 3-5 min **Stabilization:** +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18CPTMW08SW-060413 TIME: 1045

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3 - 40 mL glass vials	HCl	N	Pump	8260B-SIMS
1- 500 mL plastic	HNO3	N	Pump	Total Metals - SW6000/7000
1 - 250 mL plastic	NA	N	Pump	Perchlorate - 6850
1 - 1 liter Amber	NA	N	Pump	SVOC - 8270

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18124	LocID: 18CPTMW08DW	Date: 5/17/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 61Kes/Cevk	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID# mp-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 27.80	Weather Conditions: Cloudy 80°F
	Total Well Depth (ft) [d]: 94.00	Screened Interval/Pump placement: 89.83.5 91.25	Condition of Well/Remarks: New well No pad yet

CASING INFO												
	Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
	Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-17-13	1345	27.83	100	30.11	7.97	.910	1.68	13.1	-43	
5-17-13	1350	27.85	100	27.00	9.05	.933	0.74	11.4	-88	
5-17-13	1355	27.86	100	26.54	9.07	.931	0.23	12.9	-108	
5-17-13	1400	27.86	100	25.79	9.07	.929	0.00	17.0	-118	
5-17-13	1405	27.86	100	25.65	9.08	.929	0.00	21.1	-123	
5-17-13	1410	27.87	100	25.83	9.08	.931	0.00	24.5	-126	
5-17-13	1415	27.87	100	25.68	9.09	.928	0.00	24.9	-130	
5-17-13	1420	27.87	100	25.83	9.09	.929	0.00	25.0	-134	
5-17-13	1425	27.88	100	26.18	9.07	.927	0.00	24.9	-140	
5-17-13	1430	27.88	100	26.10	9.07	.925	0.00	25.1	-142	
5-17-13	1435	27.88	100	26.00	9.07	.924	0.00	25.2	-142	
5-17-13	1440	27.88	100	26.10	9.07	.924	0.00	25.3	-43	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18CPTMW08DW-051713 TIME: 1440

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	NO	Pump	VOC - 8260
1-500 ml plastic	HNO3	yes	"	metals - SW6000/7000
1-1 Liter Amber	NA	No	"	SVOC - 8270
1-250 ml plastic	NA	No	"	perchlorate - 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

00122805

LOCATION	Site: 18/24	LocID: 18CPT mw 10SW	Date: 6/4/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Scott Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611ces/cevr	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4p	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 18.85	Weather Conditions: CLEAR 87°F
	Total Well Depth (ft) [d]: 55.90	Screened Interval/Pump placement: 43-52.5 48.00	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
6-4-13	1215	18.88	100	33.69	6.27	.588	1.21	56.3	147	
6-4-13	1220	18.90	100	33.33	5.60	.576	0.23	61.9	174	
6-4-13	1225	18.91	100	32.99	5.57	.574	0.11	65.2	172	
6-4-13	1230	18.92	100	32.73	5.53	.543	0.04	66.2	178	
6-4-13	1235	18.93	100	32.69	5.52	.535	0.02	64.1	181	
6-4-13	1240	18.94	100	32.62	5.52	.527	0.01	62.4	186	
6-4-13	1245	18.95	100	33.00	5.45	.515	0.00	62.7	186	
6-4-13	1250	18.96	100	33.20	5.41	.513	0.00	63.0	185	
6-4-13	1255	18.97	100	33.26	5.39	.513	0.00	62.8	187	
6-4-13	1300	18.98	100	33.33	5.38	.512	0.00	62.0	188	
6-4-13	1305	18.99	100	33.37	5.38	.511	0.00	62.1	188	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18CPTmw10SW-060413 TIME: 1305

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3 - 40 mL glass vials	HCl	N	Pump	8260B-SIMS
1- 500 mL plastic	HNO3	Y	Pump	Total Metals - SW6000/7000
1 - 250 mL plastic	NA	N	Pump	Perchlorate - 6850
1 - 1 liter Amber	NA	N	Pump	SVOC - 8270

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18124	LocID: 18CPTMW10DW	Date: 5/17/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011.3AD	Recorded By: [illegible] Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: Ellikes/Ceramic	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: MP-SDK-47	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 19.08	Weather Conditions: Cloudy 75°F
	Total Well Depth (ft) [d]: 99.00	Screened Interval/Pump placement: 88.8-98.3 93.00	Condition of Well/Remarks: New well needs paint

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-17-13	1120	19.11	100	24.06	7.68	1.07	0.69	15.2	-111	
5-17-13	1125	19.13	100	23.46	6.55	1.12	0.00	8.2	-104	
5-17-13	1130	19.15	100	23.92	6.40	1.12	0.00	8.5	-105	
5-17-13	1135	19.17	100	23.91	6.30	1.13	0.00	9.7	-105	
5-17-13	1140	19.19	100	24.29	6.26	1.13	0.00	9.5	-106	
5-17-13	1145	19.20	100	23.67	6.21	1.12	0.00	9.6	-106	
5-17-13	1150	19.21	100	23.60	6.17	1.12	0.00	9.7	-105	
5-17-13	1155	19.22	100	23.55	6.18	1.12	0.00	9.7	-104	
5-17-13	1200	19.23	100	23.53	6.17	1.12	0.00	9.7	-103	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18CPTMW10DW-051713 TIME: 1200

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL		Pump	VOC - 8260
1-500 ml plastic	HNO3		"	Metals - SW6000/7000
1-1 Liter Amber	NA		"	SVOC - 8270
1-250 ml plastic	NA		"	perchlorate - 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: 18CPTMW12SW	Date: 6/4/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Scott Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611ces/cevr	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4p	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 22.71	Weather Conditions: CLEAR 91°F
	Total Well Depth (ft) [d]: 55.90	Screened Interval/Pump placement: 42.5-52 47.50	Condition of Well/Remarks: WELL CASING BENT New well

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
6-4-13	1355	22.75	100	33.26	6.55	1.52	0.67	7.3	-60	
6-4-13	1400	22.77	100	31.96	6.61	1.51	0.07	6.6	-72	
6-4-13	1405	22.79	100	31.19	6.59	1.52	0.00	8.5	-75	
6-4-13	1410	22.81	100	30.95	6.59	1.52	0.00	9.9	-77	
6-4-13	1415	22.83	100	30.79	6.59	1.53	0.00	10.7	-78	
6-4-13	1420	22.84	100	30.76	6.56	1.53	0.00	11.7	-76	
6-4-13	1425	22.85	100	30.61	6.58	1.52	0.00	12.0	-78	
6-4-13	1430	22.86	100	30.51	6.58	1.53	0.00	12.9	-78	
6-4-13	1435	22.87	100	30.47	6.55	1.53	0.00	13.0	-77	
6-4-13	1440	22.88	100	30.45	6.54	1.53	0.00	13.0	-77	
6-4-13	1445	22.89	100	30.37	6.55	1.52	0.00	13.2	-78	
6-4-13	1450	22.90	100	30.38	6.54	1.52	0.00	13.3	-76	
6-4-13	1455	22.91	100	30.35	6.54	1.52	0.00	13.3	-76	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18CPTMW12SW-060413 TIME: 1455

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3 - 40 mL glass vials	HCl	N	Pump	8260B-SIMS
1- 500 mL plastic	HNO3	Y	Pump	Total Metals - SW6000/7000
1 - 250 mL plastic	NA	N	Pump	Perchlorate - 6850
1 - 1 liter Amber	NA	N	Pump	SVOC - 8270

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

00122808

LOCATION	Site: 18/24	LocID: 18CPTMW12DW	Date: 6/4/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Scott Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611ces/cevr	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4p	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 22.10	Weather Conditions: CLEAR 95°F
	Total Well Depth (ft) [d]: 102.80	Screened Interval/Pump placement: 90-99.5 94.75	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
6-4-13	1530	22.12	100	36.36	6.77	.933	3.22	11.9	26	
6-4-13	1535	22.14	100	33.85	6.87	.888	2.25	9.4	27	
6-4-13	1540	22.16	100	31.64	6.81	.886	1.76	10.7	42	
6-4-13	1545	22.18	100	30.59	6.74	.893	1.68	11.5	55	
6-4-13	1550	22.20	100	29.67	6.64	.898	1.67	11.1	68	
6-4-13	1555	22.22	100	29.35	6.71	.901	1.58	10.1	68	
6-4-13	1600	22.24	100	29.04	6.87	.906	1.51	7.9	63	
6-4-13	1605	22.26	100	28.91	6.87	.907	1.49	7.5	66	
6-4-13	1610	22.28	100	28.89	6.86	.907	1.48	7.1	64	
6-4-13	1615	22.30	100	28.85	6.87	.907	1.47	7.8	65	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18CPTMW12DW-060413 TIME: 1615

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3 - 40 mL glass vials	HCl	N	Pump	8260B-SIMS
1- 500 mL plastic	HNO3	N	Pump	Total Metals - SW6000/7000
1 - 250 mL plastic	NA	N	Pump	Perchlorate - 6850
1 - 1 liter Amber	NA	N	Pump	SVOC - 8270

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18124	LocID: 18CPT MW14	Date: 5/13/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 66/cos/cont	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mo-spk 4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 27.50 30.00	Weather Conditions: Clear 65°F
	Total Well Depth (ft) [d]: 37.05	Screened Interval/Pump placement: 23.9-33.4 ~~[illegible]~~	Condition of Well/Remarks: New well needs paint

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-13-13	0920	27.55	100	17.44	5.97	6.50	5.12	4.9	192	
5-13-13	0925	27.58	100	19.28	5.87	6.48	4.50	4.3	195	
5-13-13	0930	27.60	100	19.77	5.86	6.49	4.35	4.0	201	
5-13-13	0935	27.62	100	20.71	5.85	6.50	4.25	3.1	215	
5-13-13	0940	27.64	100	21.63	5.85	6.50	4.17	3.5	225	
5-13-13	0945	27.66	100	21.45	5.85	6.50	4.11	4.0	239	
5-13-13	0950	27.68	100	21.98	5.85	6.51	4.12	3.6	261	
5-13-13	0955	27.70	100	22.18	5.84	6.51	4.10	3.4	270	
5-13-13	1000	27.72	100	22.25	5.84	6.51	3.91	3.2	287	
5-13-13	1005	27.74	100	22.30	5.84	6.51	3.92	3.1	290	
5-13-13	1010	27.76	100	22.33	5.84	6.51	3.91	3.0	295	
5-13-13	1015	27.78	100	22.38	5.84	6.51	3.90	3.0	297	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: 18CPTMW14-051313 TIME: 1015

DUPLICATE (D): YES/NO NO
MATRIX SPIKE (MS): YES/NO NO
MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	NO	Pump	VOC - 8260
1-1 LITER Amber	NA	NO	Pump	SVOC - 8270
1-500 ml plastic	HNO3	NO	Pump	Metals - SW6000/7000
1-250 ml plastic	NA	NO	Pump	Perchlorate - 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18124	LocID: 18CPTMW15	Date: 5/14/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Beasyon Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: Ces/CerR	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-40	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 11.81	Weather Conditions: Clear 88°F
	Total Well Depth (ft) [d]: 39.25	Screened Interval/Pump placement: 18.8-35.3	Condition of Well/Remarks: new well needs paint

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-14-13	1635	11.85	100	38.82	7.91	1.04	3.05	32.1	158	
5-14-13	1640	11.85	100	34.31	5.92	1.79	2.45	27.1	257	
5-14-13	1645	11.86	100	32.05	5.20	1.86	2.50	20.3	303	
5-14-13	1650	11.86	100	30.75	4.93	1.90	2.46	14.8	332	
5-14-13	1655	11.86	100	30.31	4.85	1.92	2.49	12.0	342	
5-14-13	1700	11.87	100	29.45	4.74	1.94	2.54	10.0	355	
5-14-13	1705	11.87	100	28.95	4.57	1.94	2.53	9.5	367	
5-14-13	1710	11.87	100	28.63	4.55	1.94	2.56	9.4	371	
5-14-13	1715	11.87	100	27.57	4.62	1.97	2.63	9.0	378	
5-14-13	1720	11.88	100	27.50	4.60	1.98	2.65	8.9	379	
5-14-13	1725	11.88	100	27.40	4.61	1.98	2.67	9.0	381	
5-14-13	1730	11.88	100	27.35	4.61	1.99	2.68	8.5	382	
5-14-13	1735	11.88	100	27.31	4.62	1.99	2.69	7.2	382	
5-14-13	1740	11.89	100	27.25	4.62	1.99	2.69	7.5	383	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18CPTMW15-051413 TIME: 1740

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3 - 40 ml glass	HCL	NO	Pump	VOC - 8260
1 - 500 ml plastic	HNO3		Pump	Metals - SW 6000/7000
1 - 1 Liter Amber	NA	NO	Pump	SVOC - 8270
1 - 250 ml plastic	NA	NO	Pump	perchlorate - 6850

00122811

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: 18CPTmw06	Date: 6/4/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Scott Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611ces/cevr	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4p	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 7.90	Weather Conditions: CLEAR 67°F
	Total Well Depth (ft) [d]: 37.60	Screened Interval/Pump placement: 15-24.5 19.50	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
6-4-13	0730	7.90	100	19.23	5.78	.472	0.14	12.4	35	
6-4-13	0735	7.91	100	18.97	5.57	.454	0.00	12.0	17	
6-4-13	0740	7.92	100	18.87	5.53	.445	0.00	14.1	10	
6-4-13	0745	7.93	100	18.88	5.53	.443	0.00	13.0	8	
6-4-13	0750	7.94	100	18.90	5.53	.443	0.00	14.0	6	
6-4-13	0755	7.95	100	18.95	5.55	.442	0.00	13.7	5	
6-4-13	0800	7.96	100	19.05	5.57	.442	0.00	13.4	3	
6-4-13	0805	7.97	100	19.01	5.59	.442	0.00	13.2	1	
6-4-13	0810	7.98	100	19.01	5.60	.442	0.00	13.0	-1	
6-4-13	0815	7.99	100	19.05	5.60	.441	0.00	12.9	-2	
6-4-13	0820	8.00	100	19.07	5.60	.442	0.00	12.9	-3	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18CPTmw16-060413 TIME: 0820

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3 - 40 mL glass vials	HCl	N	Pump	8260B-SIMS
1- 500 mL plastic	HNO3	Y	Pump	Total Metals - SW6000/7000
1 - 250 mL plastic	NA	N	Pump	Perchlorate - 6850
1 - 1 liter Amber	NA	N	Pump	SVOC - 8270

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: 18CPTMW18	Date: 5/15/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 611 Ces/Cerp	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018904	Sampling Equipment: Peristaltic/Bladder/Baller ID# MP-Spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 27.38	Weather Conditions: Cloudy 68°F
	Total Well Depth (ft) [d]: 38.00	Screened Interval/Pump placement: 24.7-34.2 30.00	Condition of Well/Remarks: New well

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-15-13	1000	27.41	100	22.26	6.11	9.07	1.02	0.8	224	
5-15-13	1005	27.43	100	22.10	6.14	9.09	0.23	0.7	224	
5-15-13	1010	27.44	100	22.01	6.14	9.11	0.00	0.9	225	
5-15-13	1015	27.45	100	21.68	6.15	9.10	0.00	0.5	224	
5-15-13	1020	27.45	100	21.79	6.16	9.16	0.00	0.4	202	
5-15-13	1025	27.45	100	21.82	6.16	9.18	0.00	0.4	192	
5-15-13	1030	27.46	100	21.85	6.16	9.18	0.00	0.4	190	
5-15-13	1035	27.46	100	21.87	6.16	9.17	0.00	0.3	185	
5-15-13	1040	27.46	100	21.95	6.16	9.18	0.00	0.4	179	
5-15-13	1045	27.47	100	22.04	6.17	9.20	0.00	0.4	173	
5-15-13	1050	27.47	100	22.10	6.17	9.18	0.00	0.3	165	
5-15-13	1055	27.47	100	22.17	6.17	9.15	0.00	0.2	160	
5-15-13	1100	27.47	100	22.26	6.17	9.15	0.00	0.2	158	
5-15-13	1105	27.48	100	22.30	6.17	9.16	0.00	0.1	157	
5-15-13	1110	27.48	100	22.32	6.17	9.16	0.00	0.1	157	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: 18CPTMW18-051513 TIME: 1110

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Baller	Parameter(s)
3-40ml glass	HCL	NO	Pump	VOC - 8260
1-500ml plastic	HNO3	NO	"	metals - SW6000/7000
1-1 Liter Amber	NA	NO	"	SVOC - 8270
1-250ml plastic	NA	NO	"	perchlorate - 6850
1-250ml plastic	NA	NO	"	Alkalinity - E310.1
1-250mL Amber	NA	NO	"	Ferrous IRON - SM3500-Fe B
1-250ml plastic	H2SO4	NO	"	TOC E415.1
1-250ml plastic	NA	NO	"	ANIONS - 9056
3-40ml glass	HCL	NO	"	GASES - RSK175
3-40ml glass	NA	NO	"	CSIA
1-Filter for CSIA	NA	YES	"	TOCA & VOA

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: 18CPTMW19	Date: 5/13/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Beesing Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611CUS/WLM	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: Mp-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 26.28	Weather Conditions: CLEAR 70°F
	Total Well Depth (ft) [d]: 37.00	Screened Interval/Pump placement: 23.5-33 28.75	Condition of Well/Remarks: New well Needs paint

CASING INFO												
	Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
	Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-13-13	1105	26.28	100	26.79	6.56	.103	4.93	55.6	175	
5-13-13	1110	26.30	100	23.57	5.99	.086	4.93	53.8	193	
5-13-13	1115	26.32	100	22.69	5.95	.081	4.78	55.4	202	
5-13-13	1120	26.35	100	22.20	5.93	.080	4.67	55.7	209	
5-13-13	1125	26.37	100	21.64	5.92	.080	4.69	57.7	216	
5-13-13	1130	26.39	100	21.62	5.91	.080	4.65	58.0	219	
5-13-13	1135	26.41	100	21.50	5.90	0.081	4.66	58.1	223	
5-13-13	1140	26.43	100	21.48	5.90	.081	4.65	58.0	225	
5-13-13	1145	26.45	100	21.45	5.90	.081	4.66	58.1	226	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18CPT19-051313 TIME: 1145

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	NO	Pump	VOC-8260
1-1 Liter Amber	NA	No	Pump	SVOC-8270
1-500 ml plastic	HNO3	Yes	Pump	metals-SW6000/7000
1-250 ml plastic	NA	NO	Pump	Perchlorate-6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: 18CPT MW 22	Date: 5/15/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Benjamin Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 11/Res/Cont	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-48	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 19.33	Weather Conditions: Clear 65°F
	Total Well Depth (ft) [d]: 32.00	Screened Interval/Pump placement: 9-28.5 24.00	Condition of Well/Remarks: New well Needs paint

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/in ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-15-13	0730	19.38	100	19.68	6.31	1.27	1.30	1.5	199	
5-15-13	0735	19.40	100	19.08	5.91	1.27	0.64	0.6	190	
5-15-13	0740	19.42	100	18.99	5.89	1.26	0.14	0.4	185	
5-15-13	0745	19.44	100	18.93	5.88	1.26	0.00	0.5	181	
5-15-13	0750	19.46	100	18.89	5.86	1.26	0.00	0.6	178	
5-15-13	0755	19.48	100	18.96	5.86	1.26	0.00	0.7	177	
5-15-13	0800	19.50	100	19.05	5.86	1.26	0.00	0.7	176	
5-15-13	0805	19.51	100	19.04	5.87	1.26	0.00	0.5	175	
5-15-13	0810	19.53	100	19.08	5.86	1.26	0.00	0.8	175	
5-15-13	0815	19.55	100	19.13	5.86	1.26	0.00	0.7	174	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18CPT MW 22-051513 TIME: 0815

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO yes

MATRIX DUPLICATE (MD): YES/NO yes

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
9-40 ml glass	HCL	NO	Pump	VOC - 8260
3-500 ml plastic	HNO3	NO	Pump	Metals - SW6000/7000
3-1 Liter Amber	NA	NO	Pump	SVOC - 8270
3-250 ml plastic	NA	NO	Pump	Perchlorate - 6850

00122815

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: 18CPTMW23	Date: 5/13/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA01	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611Ges/Cevr	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 8.78	Weather Conditions: Clear 86°F
	Total Well Depth (ft) [d]: 34.20	Screened Interval/Pump placement: 21-31.5 26.25	Condition of Well/Remarks: New well Needs Paint

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-13-13	1605	8.82	100	27.73	5.74	.755	0.36	8.1	62	
5-13-13	1610	8.83	100	25.65	5.76	.757	0.07	6.4	56	
5-13-13	1615	8.84	100	24.72	5.79	.765	0.00	6.2	52	
5-13-13	1620	8.85	100	23.89	5.77	.769	0.00	7.1	54	
5-13-13	1625	8.85	100	23.70	5.77	.769	0.00	8.0	53	
5-13-13	1630	8.85	100	23.19	5.80	.771	0.00	8.1	51	
5-13-13	1635	8.85	100	23.14	5.79	.772	0.00	8.3	51	
5-13-13	1640	8.86	100	23.10	5.79	.772	0.00	8.5	51	
5-13-13	1645	8.86	100	23.05	5.79	.772	0.00	8.5	51	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18CPTMW23-051313 TIME: 1645

DUPLICATE (D): YES/NO Yes

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
6-40 ml glass	HCL	NO	Pump	VOC-8260
2-1 LITER Amber	NA	NO	Pump	SVOC-8270
2-500 ml plastic	HNO3		Pump	Metals-SW6000/7000
2-250 ml plastic	NA	NO	Pump	Perchlorate-6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18124	LocID: 18CPTmw24	Date: 5/14/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BAD1	Recorded By: Beasinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611 Ges/Cond	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 27.28	Weather Conditions: Clear 63°F
	Total Well Depth (ft) [d]: 35.40	Screened Interval/Pump placement: 22-31.5 29.50	Condition of Well/Remarks: New well needs point

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/in ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-14-13	0740	27.28	100	19.19	6.52	8.46	2.61	4.5	203	
5-14-13	0745	27.29	100	19.09	6.46	8.54	2.09	5.1	172	
5-14-13	0750	27.30	100	19.07	6.48	8.61	1.49	4.1	165	
5-14-13	0755	27.30	100	19.07	6.49	8.63	1.18	3.8	163	
5-14-13	0800	27.30	100	19.06	6.50	8.64	1.16	3.0	158	
5-14-13	0805	27.30	100	19.07	6.50	8.64	0.93	3.0	153	
5-14-13	0810	27.30	100	19.09	6.50	8.65	0.88	2.9	147	
5-14-13	0815	27.30	100	19.13	6.51	8.67	0.85	2.6	145	
5-14-13	0820	27.30	100	19.14	6.51	8.67	0.86	2.5	145	
5-14-13	0825	27.30	100	19.18	6.51	8.67	0.85	2.4	144	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18CPTmw24-051413 TIME: 0825

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3- 40 ml glass	HCL	NO	Pump	VOC- 8260
1- 500 ml plastic	HNO3	NO	Pump	metals - SW6000/7000
1- 1 Liter Amber	NA	NO	Pump	SVOC- 8270
1- 250 ml plastic	NA	NO	Pump	Perchlorate - 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18124	LocID: 18WW08	Date: 5-15/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: [illegible] Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 611/Geslcoo	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: MP-Spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 10.60	Weather Conditions: RAIN 77°F
	Total Well Depth (ft) [d]: 22.50	Screened Interval/Pump placement: 9-14 14.00	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-15-13	1330	10.65	100	23.61	5.87	2.11	0.86	51.0	211	
5-15-13	1335	10.66	100	22.57	5.50	2.08	1.42	41.6	141	
5-15-13	1340	10.66	100	21.43	5.40	2.11	0.20	29.1	144	
5-15-13	1345	10.66	100	20.97	5.37	2.10	0.20	20.5	145	
5-15-13	1350	10.67	100	20.67	5.34	2.10	0.00	15.9	146	
5-15-13	1355	10.67	100	20.41	5.32	2.10	0.00	13.9	147	
5-15-13	1400	10.67	100	20.30	5.32	2.10	0.00	13.5	148	
5-15-13	1405	10.68	100	20.19	5.31	2.11	0.00	13.4	150	
5-15-13	1410	10.68	100	20.10	5.30	2.11	0.00	13.3	151	
5-15-13	1415	10.68	100	20.02	5.30	2.12	0.00	12.5	153	
5-15-13	1420	10.69	100	19.95	5.29	2.13	0.00	11.8	156	
5-15-13	1425	10.69	100	19.86	5.29	2.14	0.00	11.0	158	
5-15-13	1430	10.69	100	19.77	5.29	2.15	0.00	10.7	159	
5-15-13	1435	10.70	100	19.75	5.29	2.16	0.00	10.0	160	
5-15-13	1440	10.70	100	19.73	5.29	2.16	0.00	9.8	160	
5-15-13	1445	10.70	100	19.70	5.29	2.17	0.00	9.0	162	
5-15-13	1450	10.70	100	19.68	5.29	2.18	0.00	8.5	163	
5-15-13	1455	10.70	100	19.65	5.29	2.18	0.00	8.1	164	
5-15-13	1500	10.70	100	19.63	5.29	2.18	0.00	7.3	164	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: 18WW08-05513 TIME: 1500

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	NO		VOC - 8260
1-500 ml plastic	HNO3			metals - SW6000/7000
2-1 Liter Amber	NA	NO		SVOC - 8270
1-250 ml plastic	NA	NO		perchlorate 6850
1-250 ml plastic	NA	NO		Alkalinity - E310.1
1-250 ml plastic	NA	NO		Ferrous Iron - SM 3500 Fe B
1-250 ml plastic	NA	NO		Anions 9050
1-250 ml plastic	H2SO4	NO		TOC - E415.1
3-40 ml glass	HCL	NO		Gases - RSK175
2-40 ml glass	HCL	NO		SSIM
1-Gallon	NA	Y/N		TEQA VOA

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 1824	LocID: 18WW09	Date: 5/9/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beu Syer Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611 ces/ces	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: MP-SPK-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 9.35	Weather Conditions: Cloudy / misting rain 70%
	Total Well Depth (ft) [d]: 62.00	Screened Interval/Pump placement: 49-59 54.00	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-9-13	0925	9.40	100	20.23	5.89	.477	1.11	8.1	52	
5-9-13	0930	9.42	100	19.91	6.09	.496	0.20	6.9	-25	
5-9-13	0935	9.43	100	19.78	6.13	.502	0.00	7.0	-30	
5-9-13	0940	9.44	100	19.72	6.18	.505	0.00	9.0	-34	
5-9-13	0945	9.45	100	19.68	6.19	.507	0.00	9.1	-34	
5-9-13	0950	9.46	100	19.65	6.20	.508	0.00	9.5	-36	
5-9-13	0955	9.47	100	19.63	6.21	.508	0.00	9.3	-37	
5-9-13	1000	9.47	100	19.62	6.20	.508	0.00	9.5	-37	
5-9-13	1005	9.47	100	19.60	6.20	.508	0.00	9.4	-37	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18WW09-050913 TIME: 1005

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO yes

MATRIX DUPLICATE (MD): YES/NO yes

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
9-40 ml glass	HCL	NO	Pump	VOC 8260
3-500 ml plastic	HNO3	NO	Pump	TOTAL metals SW6000/7000
3-250 ml plastic	NONE	NO	Pump	Perchlorate 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: 18WW18	Date: 5/7/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013A	Recorded By: Beesley Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611 Ges/Cam	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spK-4P	
WELL INFO	Casing I.D. (in) [a]: 4 11	Static Water Level Reading (ft) [c]: 28.64	Weather Conditions: Clear 62°F
	Total Well Depth (ft) [d]: 64.05	Screened Interval/Pump placement: 51-61 56.00	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5/7/13	0940	28.68	100	17.56	5.72	1.30	2.22	106	19	
5/7/13	0945	28.70	100	18.41	5.70	1.36	0.42	78.6	24	
5/7/13	0950	28.72	100	18.47	5.68	1.36	0.34	74.4	25	
5/7/13	0955	28.74	100	18.69	5.65	1.37	0.09	61.0	24	
5/7/13	1000	28.76	100	18.81	5.63	1.39	0.00	51.2	25	
5/7/13	1005	28.78	100	18.92	5.63	1.39	0.00	45.4	24	
5/7/13	1010	28.80	100	19.08	5.63	1.39	0.00	37.7	23	
5/7/13	1015	28.81	100	19.27	5.62	1.40	0.00	32.1	22	
5/7/13	1020	28.82	100	19.35	5.62	1.40	0.00	28.7	22	
5/7/13	1025	28.83	100	19.42	5.62	1.40	0.00	26.4	21	
5/7/13	1030	28.84	100	19.51	5.61	1.39	0.00	25.6	20	
5/7/13	1035	28.85	100	19.84	5.61	1.40	0.00	22.6	19	
5/7/13	1040	28.86	100	19.87	5.61	1.40	0.00	21.9	19	
5/7/13	1045	28.86	100	19.93	5.61	1.39	0.00	21.1	19	
5/7/13	1050	28.86	100	19.97	5.61	1.39	0.00	21.2	19	
5/7/13	1055	28.86	100	19.98	5.61	1.39	0.00	21.0	19	
5/7/13	1100	28.86	100	19.96	5.61	1.39	0.00	21.3	19	

Pump Rate: <=0.5 L/min **Drawdown:** <0.33 ft **Measurements:** 3-5 min **Stabilization:** +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 18WW18-050713 TIME: 1100

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	N	Pump	VOC 8260
1-250 ml plastic	None	N	Pump	Perchlorate 6850
1-500 ml plastic	HNO3	Y	pump	TOTAL metals - SW 6000/7000

MONITORING WELL SAMPLE COLLECTION FORM

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

00122820

LOCATION	Site: 18124	LocID: 18WW20	Date: 5/9/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611ces/cen	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: Mp-spl44p	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 12.52	Weather Conditions: Cloudy 67°F
	Total Well Depth (ft) [d]: 36.70	Screened Interval/Pump placement: 24-34 29.00	Condition of Well/Remarks: Needs paint

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5/9/13	0710	12.55	100	20.21	6.65	.159	10.20	44.3	222	
5/9/13	0715	12.58	100	19.45	5.69	.142	8.57	40.6	225	
5/9/13	0720	12.59	100	19.17	5.90	.138	8.04	36.8	205	
5/9/13	0725	12.60	100	19.10	5.89	.137	7.63	36.7	188	
5/9/13	0730	12.61	100	19.03	5.97	.137	7.26	37.3	164	
5/9/13	0735	12.62	100	18.98	5.95	.137	6.98	33.1	149	
5/9/13	0740	12.63	100	18.94	5.96	.137	6.68	32.8	136	
5/9/13	0745	12.64	100	18.91	5.96	.137	6.40	28.6	126	
5/9/13	0750	12.65	100	18.90	5.96	.138	6.15	30.0	119	
5/9/13	0755	12.66	100	18.89	5.95	.138	5.89	25.5	115	
5/9/13	0800	12.67	100	18.87	5.97	.138	5.62	25.1	110	
5/9/13	0805	12.68	100	18.84	5.95	.139	5.36	24.9	104	
5/9/13	0810	12.69	100	18.88	5.96	.139	5.31	25.0	102	
5/9/13	0815	12.70	100	18.89	5.96	.139	5.30	24.8	101	
5/9/13	0820	12.71	100	18.90	5.96	.139	5.31	24.9	101	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: 18WW20-050913 TIME: 0820

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	NO	Pump	VOC 8260
1-500 ml plastic	HNO3	Yes	Pump	TOTAL Metals SW6000/7000
1-250 ml plastic	NONE	NO	Pump	Perchlorate 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: 18WW22	Date: 5/13/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0011BA11	Recorded By: Beessinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611ces/ce	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: MP-SPK-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 27.49	Weather Conditions: CLEAR 48°F
	Total Well Depth (ft) [d]: 45.35	Screened Interval/Pump placement: 27-41.5 34.25	Condition of Well/Remarks: New well Needs paint

CASING INFO												
Casing I.D. (in) [a]:	**0.75**	1.5	**2.0**	2.2	3.0	**4.0**	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/in ft) [b]:	**0.023**	0.09	**0.16**	0.20	0.37	**0.65**	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-13-13	0745	27.51	100	16.77	7.24	.305	2.34	3.5	155	
5-13-13	0750	27.53	100	17.05	6.75	.292	0.00	3.3	83	
5-13-13	0755	27.55	100	17.35	6.74	.289	0.00	3.5	60	
5-13-13	0800	27.57	100	17.40	6.74	.289	0.00	3.4	55	
5-13-13	0805	27.59	100	17.47	6.74	.288	0.00	3.3	49	
5-13-13	0810	27.62	100	17.63	6.75	.287	0.00	3.3	43	
5-13-13	0815	27.64	100	17.67	6.75	.287	0.00	3.2	42	
5-13-13	0820	27.65	100	17.73	6.75	.287	0.00	3.1	41	
5-13-13	0825	27.66	100	17.75	6.76	.288	0.00	3.2	41	

Pump Rate: <=0.5 L/min **Drawdown:** <0.33 ft **Measurements:** 3-5 min **Stabilization:** +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: 18WW22-051313 TIME: 0825

DUPLICATE (D): YES/NO NO
MATRIX SPIKE (MS): YES/NO NO
MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3- 40ml glass	HCL	NO	Pump	VOC- 8260
1-500 ml plastic	HNO3	NO	Pump	metals- 6010B/7000
1-250 ml plastic	NO	NO	Pump	Perchlorate- 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: CO2	Date: 5/9/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611 Les/Cevic	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 7.00	Weather Conditions: Cloudy/overcast 75°F
	Total Well Depth (ft) [d]: 29.33	Screened Interval/Pump placement: 17.9-29.9 23.00	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-9-13	1635	7.04	100	22.53	5.81	.729	0.43	116	132	
5-9-13	1640	7.05	100	20.82	5.81	.745	0.00	123	68	
5-9-13	1645	7.06	100	20.67	5.80	.745	0.00	124	61	
5-9-13	1650	7.07	100	20.40	5.80	.745	0.00	131	56	
5-9-13	1655	7.08	100	20.16	5.81	.746	0.00	137	53	
5-9-13	1700	7.09	100	19.98	5.80	.747	0.00	141	53	
5-9-13	1705	7.10	100	19.92	5.80	.747	0.00	144	51	
5-9-13	1710	7.11	100	19.79	5.79	.747	0.00	147	50	
5-9-13	1715	7.12	100	19.75	5.79	.746	0.00	138	49	
5-9-13	1720	7.13	100	19.73	5.80	.746	0.00	135	48	
5-9-13	1725	7.14	100	19.66	5.80	.747	0.00	129	46	
5-9-13	1730	7.15	100	19.60	5.81	.748	0.00	115	45	
5-9-13	1735	7.15	100	19.58	5.81	.749	0.00	114	43	
5-9-13	1740	7.15	100	19.54	5.81	.749	0.00	115	42	
5-9-13	1745	7.15	100	19.49	5.81	.749	0.00	115	41	
5-9-13	1750	7.16	100	19.48	5.81	.749	0.00	114	41	
5-9-13	1755	7.16	100	19.46	5.81	.748	0.00	115	40	
5-9-13	1800	7.16	100	19.45	5.81	.748	0.00	115	40	
5-9-13	1805	7.17	100	19.45	5.81	.748	0.00	114	40	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: CO2-050913 TIME: 1805

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	NO	Pump	VOC - 8260
1-500 ml plastic	HNO3	Yes	Pump	Metals - SW6000/7000
1-250 ml plastic	NONE	NO	Pump	Perchlorate - 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: C03	Date: 5/7/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 611ces/CEVR	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: ~~mp~~ mp-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 411	Static Water Level Reading (ft) [c]: 27.92	Weather Conditions: Clear 87°F
	Total Well Depth (ft) [d]: 62.48	Screened Interval/Pump placement: 51-61.2 56.00	Condition of Well/Remarks: GOOD

CASING INFO												
	Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
	Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5/7/13	1655	27.95	100	23.61	5.03	1.63	0.94	6.3	114	
5/7/13	1700	27.98	100	22.15	5.12	1.69	0.00	4.3	93	
5/7/13	1705	27.99	100	21.54	5.18	1.73	0.00	4.1	82	
5/7/13	1710	28.01	100	21.29	5.20	1.76	0.00	3.3	76	
5/7/13	1715	28.04	100	21.06	5.20	1.79	0.00	4.5	70	
5/7/13	1720	28.07	100	20.83	5.21	1.82	0.00	5.9	69	
5/7/13	1725	28.09	100	20.76	5.20	1.83	0.00	4.3	68	
5/7/13	1730	28.11	100	20.68	5.18	1.84	0.00	5.1	69	
5/7/13	1735	28.13	100	20.58	5.18	1.84	0.00	4.9	69	
5/7/13	1740	28.15	100	20.54	5.18	1.85	0.00	5.2	70	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: C03-050713 TIME: 1740

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	N	Pump	VOC 8260
1-250 ml plastic	NONE	N	Pump	Perchlorate 6850
1-500 ml plastic	HNO3	N	Pump	TOTAL metals SW6000/7000

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: C04	Date: 5/11/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beaujon Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 611Les/Cerp	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-YP	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 26.58	Weather Conditions: clear 80°F
	Total Well Depth (ft) [d]: 55.00	Screened Interval/Pump placement: 43.6-53.7 48.50	Condition of Well/Remarks: GOOD

CASING INFO												
	Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
	Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-11-13	1320	26.61	100	24.86	6.13	.262	1.24	57.8	46	
5-11-13	1325	26.65	100	24.25	5.83	.239	0.22	55.0	41	
5-11-13	1330	26.65	100	24.39	5.76	.234	0.00	58.3	41	
5-11-13	1335	26.67	100	23.88	5.75	.232	0.00	53.4	41	
5-11-13	1340	26.69	100	23.34	5.71	.230	0.00	57.0	44	
5-11-13	1345	26.70	100	23.52	5.74	.231	0.00	57.7	42	
5-11-13	1350	26.71	100	22.53	5.75	.230	0.00	57.6	42	
5-11-13	1355	26.72	100	22.91	5.74	.231	0.00	57.9	42	
5-11-13	1400	26.72	100	22.63	5.72	.230	0.00	57.5	44	
5-11-13	1405	26.72	100	22.05	5.72	.231	0.00	57.0	45	
5-11-13	1410	26.72	100	22.00	5.73	.231	0.00	56.8	45	
5-11-13	1415	26.72	100	22.10	5.73	.231	0.00	56.9	45	
5-11-13	1420	26.72	100	22.12	5.73	.231	0.00	57.0	45	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: C04-051113 TIME: 1420

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO yes

MATRIX DUPLICATE (MD): YES/NO yes

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
9-40 ml glass	HCL	NO	Pump	VOC- 8260
~~[illegible]~~ SB	~~[illegible]~~ SB	~~NO~~ SB	~~Pump~~ SB	~~[illegible]~~ SB
3-500 ml plastic	HNO3	yes	Pump	metals - SW6000/7000
3-250 ml plastic	NA	NO	Pump	Perchlorate - 6850

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: C06	Date: 5/7/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611 CES/Cov	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4 11	Static Water Level Reading (ft) [c]: 26.43	Weather Conditions: CLEAR 50°F
	Total Well Depth (ft) [d]: 54.60	Screened Interval/Pump placement: 43-53.2 48.00	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5/7/13	0730	26.48	100	17.43	5.90	1.72	1.51	6.7	-30	
5/7/13	0735	26.50	100	16.30	5.71	1.63	1.03	6.0	-48	
05/7/13	0740	26.52	100	16.53	5.75	1.63	0.00	3.8	-41	
5/7/13	0745	26.54	100	16.61	5.85	1.65	0.00	3.0	-45	
5/7/13	0750	26.56	100	16.69	5.91	1.66	0.00	2.5	-49	
5/7/13	0755	26.60	100	16.73	6.04	1.67	0.00	1.8	-56	
5/7/13	0800	26.61	100	16.77	6.06	1.67	0.00	1.8	-58	
5/7/13	0805	26.62	100	16.76	6.05	1.67	0.00	1.7	-58	
5/7/13	0810	26.63	100	16.77	6.05	1.67	0.00	1.8	-58	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: ~~C06-01~~ C06-050713 TIME: 0810

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
~~VOC SW8260~~	~~HCL~~	~~N~~	~~Pump~~	
~~Perchlorate SW6850~~	~~NONE~~	~~Y~~	~~Pump~~	
~~TOTAL metals SW6000/7000~~	~~HNO3~~	~~—~~	~~Pump~~	
2 - 40 ml glass	HCL	N	Pump	VOC SW8260
1 - 250 ml plastic	None	N	Pump	Perchlorate SW6850
1 - 500 ml plastic	HNO3	N	Pump	TOTAL metals SW6000/7000

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

00122826

LOCATION	Site: 18/24	LocID: C08	Date: 5/7/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Reesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611ces/ceu	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 24.50	Weather Conditions: CLEAR 57°F
	Total Well Depth (ft) [d]: 32.40	Screened Interval/Pump placement: 15-25	Condition of Well/Remarks: ~~Good~~ Needs paint

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5/7/13 ~~0850~~	0850	24.50								BAILED - only .5 ft in screen
5/7/13	0900	32.20								BAILED 9 gallons until DRY
~~1225~~										
5/7/13	1225	24.50		21.41	6.01	6.40	8.72	9.9	125	Collected Sample

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: C08-050713 TIME: 1230

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3 - 40 ml glass	HCL	N	Bailed	VOC 8260
1 - 250 ml plastic	NaOH	N	Bailed	Perchlorate 6850
1 - 500 ml plastic	HNO3	N	Bailed	Total metals SW6000/7000

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

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AECOM

MONITORING WELL SAMPLE COLLECTION FORM

00122827

LOCATION	Site: 18/24	LocID: MW2	Date: 5/9/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: [illegible] Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# [illegible]	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 27.43	Weather Conditions: Cloudy 72°F
	Total Well Depth (ft) [d]: 42.60	Screened Interval/Pump placement: 33.4-38.4 36.00	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-9-13	1435	27.48	100	23.45	5.19	3.54	1.22	1.6	242	
5-9-13	1440	27.50	100	23.57	5.21	3.57	0.00	1.2	179	
5-9-13	1445	27.52	100	23.74	5.21	3.58	0.00	1.7	162	
5-9-13	1450	27.54	100	23.68	5.18	3.57	0.00	1.6	154	
5-9-13	1455	27.56	100	23.70	5.12	3.56	0.00	2.8	152	
5-9-13	1500	27.58	100	23.75	5.10	3.55	0.00	1.7	152	
5-9-13	1505	27.60	100	23.77	5.11	3.55	0.00	1.5	152	
5-9-13	1510	27.62	100	23.79	5.11	3.55	0.00	1.5	152	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: MW2-050913 TIME: 1510

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3- 40 ml glass	HCL	NO	Pump	VOC - 8260
1 - 1 Liter AMBER	None	NO	Pump	SVOC - 8270
1- 500 ml plastic	HNO3	NO	Pump	Metals - SW6000/7000
1- 250 ml plastic	None	No	Pump	perchlorate - 6850
1- 250 ml plastic	None	NO	Pump	CR-6 - 7196

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: MW3	Date: 5/7/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611Ges/Cond	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 27.85	Weather Conditions: Clear 78°F
	Total Well Depth (ft) [d]: 49.50	Screened Interval/Pump placement: 39-44 31.5	Condition of Well/Remarks:

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5/7/13	1300	27.88	100	25.51	6.21	.879	4.18	4.3	111	
5/7/13	1305	27.89	100	26.59	6.37	.876	3.94	2.1	75	
5/7/13	1310	27.90	100	26.94	6.38	.877	3.92	1.7	93	
5/7/13	1315	27.92	100	27.49	6.40	.879	3.79	1.5	108	
5/7/13	1320	27.93	100	28.09	6.40	.880	3.85	1.4	119	
5/7/13	1325	27.95	100	28.49	6.40	.881	3.75	1.3	125	
5/7/13	1330	27.97	100	28.55	6.41	.881	3.76	1.4	137	
5/7/13	1335	27.99	100	28.60	6.41	.882	3.74	1.6	140	
5/7/13	1340	28.01	100	28.62	6.41	.882	3.72	1.4	142	
5/7/13	1345	28.03	100	28.64	6.41	.882	3.72	1.2	142	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: MW3-050713 TIME: 1345

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	N	pump	VOC 8260
1-250 ml plastic	None	N	pump	perchlorate 6850
1-500 ml plastic	HNO3	N	pump	Total metals SW6000/7000
1-250 ml plastic	None	N	pump	Hexavalent Chromium 7196
1-1L Amber	None	N	pump	Hexachlorobenzene 8270

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: MW5	Date: 5/13/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beasinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611 ces/cen	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-48	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 26.60	Weather Conditions: Clear 80°F
	Total Well Depth (ft) [d]: 43.55	Screened Interval/Pump placement: 33.8-38.8 36.50	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-13-13	1320	26.62	100	28.73	5.73	.838	2.91	1.6	158	
5-13-13	1325	26.64	100	27.32	5.57	.871	1.84	1.3	210	
5-13-13	1330	26.66	100	27.03	5.55	.871	1.39	1.5	221	
5-13-13	1335	26.67	100	26.84	5.52	.871	1.19	2.0	237	
5-13-13	1340	26.69	100	26.90	5.50	.869	0.91	2.1	244	
5-13-13	1345	26.71	100	27.09	5.48	.869	0.21	2.1	246	
5-13-13	1350	26.73	100	27.23	5.45	.870	0.61	2.0	250	
5-13-13	1355	26.74	100	27.45	5.44	.870	0.60	2.0	250	
5-13-13	1400	26.76	100	27.61	5.44	.870	0.59	1.8	251	
5-13-13	1405	26.78	100	27.61	5.43	.869	0.58	1.9	250	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: MW5-051313 TIME: 1405

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	NO	Pump	VOC-8260
1-1 Liter Amber	NA	NO	Pump	SVOC-8270
1-500 ml plastic	HNO3	NO	Pump	Metals-SW6000/7000
1-250 ml plastic	NA	NO	Pump	perchlorate 6850
1-250 ml plastic	NA	NO	Pump	CR-6 7196

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18124	LocID: MW6	Date: 5/9/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611 ces/cem	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: no-spl-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 23.71	Weather Conditions: RAIN / 70°F
	Total Well Depth (ft) [d]: 47.75	Screened Interval/Pump placement: 38.3 - 43.8 41.00	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-9-13	1100	23.76	100	20.38	5.59	1.69	1.88	2.0	79	
5-9-13	1105	23.78	100	20.47	6.08	1.70	0.83	2.7	92	
5-9-13	1110	23.80	100	20.53	6.11	1.71	0.56	1.6	105	
5-9-13	1115	23.82	100	20.57	6.12	1.70	0.50	1.5	115	
5-9-13	1120	23.84	100	20.61	6.13	1.70	0.49	1.7	117	
5-9-13	1130	23.86	100	20.69	6.13	1.70	0.50	1.0	118	
5-9-13	1135	23.88	100	20.72	6.13	1.70	0.51	1.2	118	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: MW6-050913 TIME: 1135

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3- 40 ml glass	HCL	NO	Pump	VOC - 8260
1- 500 ml plastic	HNO3	NO	Pump	Total metals - SW6000/7000
1- 250 ml plastic	None	NO	Pump	Perchlorate - 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: MW7	Date: 5/14/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611/Gas/Cevin	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: MP-SPK-4P	
WELL INFO	Casing I.D. (in) [a]: 411	Static Water Level Reading (ft) [c]: 20.09	Weather Conditions: CLEAR 85°F
	Total Well Depth (ft) [d]: 27.63	Screened Interval/Pump placement: 18.-23 22.00	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-14-13	1230	20.13	100	27.79	9.53	1.24	3.03	13.7	90	
5-14-13	1235		100	28.25	9.15	1.20	1.17	11.3	106	
5-14-13	1240		100	28.22	9.05	1.20	0.92	10.8	114	
5-14-13	1245		100	28.48	9.33	1.20	0.89	9.9	117	
5-14-13	1250		100	28.77	9.31	1.19	0.88	9.8	118	
5-14-13	1255		100	29.27	8.99	1.19	0.71	8.1	120	
5-14-13	1300		100	29.37	8.98	1.19	0.78	7.2	120	
5-14-13	1305		100	29.40	8.97	1.18	0.76	6.8	121	
5-14-13	1310		100	29.45	8.97	1.18	0.77	6.7	121	
5-14-13	1315		100	29.50	8.97	1.17	0.75	5.9	121	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: MW7-051413 TIME: 1315

DUPLICATE (D): YES/NO NO
MATRIX SPIKE (MS): YES/NO NO
MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	NO	Pump	VOC - 8260
1-500 ml plastic	HNO3	NO	Pump	Metals - SW6000/7000
1-1 Liter plastic	NA	NO	Pump	SVOC - 8270
1-250 ml plastic	NA	NO	Pump	perchlorate - 6850
1-205 ml plastic	NA	NO	Pump	CR-6 - 7196

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: T8/24	LocID: MW8	Date: 5/16/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beesing Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611 Geo/Cond	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 18.52	Weather Conditions: Cloudy/Rainy 67°F
	Total Well Depth (ft) [d]: 33.55	Screened Interval/Pump placement: 24-29 26.50	Condition of Well/Remarks: Needs paint

CASING INFO												
	Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
	Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-15-13	0745	18.52	100	20.35	6.60	1.88	4.21	2.5	267	
5-15-13	0750	18.53	100	19.57	5.13	1.90	2.85	1.4	281	
5-15-13	0755	18.54	100	19.39	5.11	1.90	2.51	1.3	285	
5-15-13	0800	18.55	100	19.17	5.08	1.91	2.19	1.2	288	
5-15-13	0805	18.56	100	19.15	5.08	1.92	2.11	1.1	291	
5-15-13	0810	18.57	100	19.18	5.07	1.91	2.02	1.3	294	
5-15-13	0815	18.58	100	19.19	5.06	1.92	2.04	1.2	295	
5-15-13	0820	18.59	100	19.19	5.05	1.92	2.05	1.2	296	
5-15-13	0825	18.60	100	19.15	5.05	1.93	2.03	0.8	297	
5-15-13	0830	18.61	100	19.15	5.04	1.93	2.03	1.0	298	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: MW 8-051613 TIME: 0830

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	NO	Pump	VOC - 8260
1-500 ml plastic	HNO3	NO	"	metals - SW6000/7000
1-1 Liter Amber	NA	NO	"	SVOC - 8270
1-250 ml plastic	NA	NO	"	perchlorate - 6850
1-250 ml plastic	NA	NO	"	Alkalinity - E310.1
1-250 ml ~~plastic~~ amber glass	NA	NO	"	Ferrous Iron - SM3500 FeB
1-250 ml plastic	H2SO4	NO	"	TOC - E415.1
1-250 ml plastic	NA	NO	"	ANIONS - 9056
3-40 ml glass	HCL	NO	"	GASES - RSK 175
3-40 ml glass	HCL	NO	"	CSIA -
1-Filter	NA	YES	"	TEEA VCA

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: mw9	Date: 5/9/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 611 ces/cen	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-sp14-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 15.50	Weather Conditions: Cloudy 71 °F
	Total Well Depth (ft) [d]: 29.63	Screened Interval/Pump placement: 20-25 22.5	Condition of Well/Remarks: GOOD

CASING INFO												
	Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
	Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-9-13	1255	15.55	100	21.27	6.85	.175	4.88	4.9	191	
5-9-13	1300	15.58	100	20.92	6.28	.372	1.67	4.9	205	
5-9-13	1305	15.60	100	21.13	6.28	.371	1.43	3.4	204	
5-9-13	1310	15.62	100	21.25	6.28	.371	1.40	2.8	204	
5-9-13	1315	15.64	100	21.47	6.28	.371	1.31	3.3	204	
5-9-13	1320	15.66	100	21.61	6.28	.371	1.28	3.1	204	
5-9-13	1325	15.68	100	21.55	6.29	.370	1.27	3.7	204	
5-9-13	1330	15.70	100	21.58	6.28	.371	1.27	3.9	203	
5-9-13	1335	15.72	100	21.60	6.28	.370	1.26	4.0	203	

Pump Rate: <=0.5 L/min **Drawdown:** <0.33 ft **Measurements:** 3-5 min **Stabilization:** +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: mw9-050913 TIME: 1335

DUPLICATE (D): YES/NO Yes

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
6 - 40 ml glass	HCL	NO	Pump	VOC - 8260
2 - 1 Liter Amber	None	NO	Pump	SVOC - 8270
2 - 500 ml plastic	HNO3	NO	Pump	Metals - SW6000/7000
2 - 250 ml plastic	NONE	NO	Pump	Perchlorate - 6850
2 - 250 ml plastic	NONE	NO	Pump	CR-6 - 7196

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: MW10	Date: 5/8/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Reesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 611ces/cerr	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 9.50	Weather Conditions: Clear 71°F
	Total Well Depth (ft) [d]: 36.62	Screened Interval/Pump placement: 26.5-31.5 29.00	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5/8/13	0915	9.55	100	18.32	3.89	.810	1.35	136	326	
5/8/13	0920	9.56	100	18.52	3.87	.801	0.00	111	421	
5/8/13	0925	9.57	100	18.75	3.83	.797	0.00	99.6	466	
5/8/13	0930	9.58	100	18.98	3.79	.796	0.00	90.5	483	
5/8/13	0935	9.59	100	19.15	3.78	.795	0.00	87.7	491	
5/8/13	0940	9.60	100	19.58	3.78	.795	0.00	86.5	492	
5/8/13	0945	9.61	100	19.69	3.77	.795	0.00	88.1	492	
5/8/13	0950	9.61	100	20.14	3.77	.795	0.00	88.7	485	
5/8/13	0955	9.61	100	20.65	3.77	.794	0.00	82.9	483	
5/8/13	1000	9.62	100	20.95	3.78	.793	0.00	79.4	483	
5/8/13	1005	9.62	100	21.22	3.79	.792	0.00	76.0	478	
5/8/13	1010	9.63	100	21.50	3.78	.792	0.00	74.9	478	
5/8/13	1015	9.63	100	21.60	3.79	.792	0.00	74.1	472	
5/8/13	1020	9.63	100	21.68	3.80	.792	0.00	73.9	470	
5/8/13	1025	9.64	100	21.72	3.79	.791	0.00	73.8	465	
5/8/13	1030	9.64	100	21.75	3.80	.789	0.00	73.9	463	
5/8/13	1035	9.65	100	21.77	3.80	.789	0.00	74.0	465	
5/8/13	1040	9.65	100	21.80	3.80	.789	0.00	73.7	465	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: MW10-050813 TIME: 1040

DUPLICATE (D): YES/NO YES

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
6-40ml glass	HCL	N	Pump	VOC 8260
2-500 ml plastic	HNO3	Y	Pump	TOTAL metals SW6000/7000
2-250 ml plastic	NONE	N	Pump	PERCHLORATE 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: MW16	Date: 5/10/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 61/Cos/Cer	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#:	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 9.89	Weather Conditions: Clear 75°F
	Total Well Depth (ft) [d]: 37.10	Screened Interval/Pump placement: 23-28 25.5	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-10-13	0925	9.92	100	21.15	6.46	.940	1.00	25.5	47	
5-10-13	0930	9.93	100	20.92	6.05	.952	0.00	25.6	41	
5-10-13	0935	9.94	100	20.84	5.95	.954	0.00	24.5	40	
5-10-13	0940	9.95	100	20.81	5.89	.955	0.00	24.9	40	
5-10-13	0945	9.96	100	20.82	5.87	.957	0.00	23.8	40	
5-10-13	0950	9.96	100	20.87	5.83	.955	0.00	23.4	40	
5-10-13	0955	9.96	100	20.87	5.82	.955	0.00	22.5	40	
5-10-13	1000	9.97	100	20.89	5.81	.955	0.00	21.4	40	
5-10-13	1005	9.97	100	20.90	5.80	.953	0.00	21.3	40	
5-10-13	1010	9.97	100	20.93	5.80	.954	0.00	20.6	39	
5-10-13	1015	9.98	100	21.02	5.79	.956	0.00	19.0	39	
5-10-13	1020	9.98	100	21.15	5.80	.955	0.00	18.2	39	
5-10-13	1025	9.98	100	21.23	5.79	.952	0.00	18.4	39	
5-10-13	1030	9.99	100	21.21	5.79	.952	0.00	18.1	38	
5-10-13	1035	9.99	100	21.25	5.79	.952	0.00	18.0	38	
5-10-13	1040	10.00	100	21.30	5.79	.953	0.00	18.2	38	
5-10-13	1045	10.00	100	21.33	5.78	.953	0.00	18.0	38	
5-10-13	1050	10.00	100	21.34	5.78	.953	0.00	18.1	38	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: MW16-051013 TIME: 1050

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3 - 40 ml glass	HCL	NO	Pump	VOC - 8260
1 - 1 Liter Amber	NA	NO	Pump	SVOC - 8270
1 - 500 ml plastic	HNO3	YES	Pump	METALS - SW 6000/7000
1 - 250 ml plastic	NA	NO	Pump	Perchlorate - 8.50
~~1 - 500 ml plastic~~	~~NA~~	~~NO~~	~~Pump~~	

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18124	LocID: MW17	Date: 5/10/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 611 Geotech	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: MA-Spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4 11	Static Water Level Reading (ft) [c]: 10.60	Weather Conditions: Cloudy/overcast 68°F
	Total Well Depth (ft) [d]: 28.63	Screened Interval/Pump placement: 18.3-23.3 20.8	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/in ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-10-13	0725	10.65	100	20.61	7.18	.821	1.61	28.3	154	
5-10-13	0730	10.67	100	19.94	7.63	.796	0.01	21.3	84	
5-10-13	0735	10.69	100	19.65	7.89	.794	0.00	18.5	75	
5-10-13	0740	10.70	100	19.45	8.05	.791	0.00	15.3	60	
5-10-13	0745	10.72	100	19.53	8.27	.791	0.00	12.1	39	
5-10-13	0750	10.73	100	19.32	8.35	.790	0.00	11.1	15	
5-10-13	0755	10.74	100	19.31	8.37	.790	0.00	9.8	-15	
5-10-13	0800	10.76	100	19.32	8.40	.792	0.00	9.2	-66	
5-10-13	0805	10.77	100	19.36	8.39	.793	0.00	8.8	-86	
5-10-13	0810	10.78	100	19.38	8.39	.794	0.00	8.3	-111	
5-10-13	0815	10.79	100	19.37	8.36	.795	0.00	8.1	-136	
5-10-13	0820	10.81	100	19.37	8.35	.795	0.00	7.7	-139	
5-10-13	0825	10.83	100	19.37	8.34	.796	0.00	7.3	-140	
5-10-13	0830	10.85	100	19.39	8.34	.796	0.00	7.0	-141	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: MW17-051013 TIME: 0830

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3- 40 ml glass	HCL	NO	Pump	VOC - 8260
1- 1 Liter Amber	NA	NO	Pump	SVOC - 8270
1- 500 ml plastic	HNO3	NO	Pump	Metals - SW6000/7000
1-250 ml plastic	NA	NO	Pump	Perchlorate - 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

00122837

LOCATION	Site: 18124	LocID: mw18	Date: 5/8/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By Reesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 61/Ces/Cer	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-S812-4P	
WELL INFO	Casing I.D. (in) [a]: 4.11	Static Water Level Reading (ft) [c]: 9.91	Weather Conditions: CLEAR 86°F
	Total Well Depth (ft) [d]: 33.55	Screened Interval/Pump placement: 23.3-28.3 25.8	Condition of Well/Remarks: NEEDS PAINT

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5/8/13	1615	9.93	100	30.53	8.06	.537	1.19	75.5	178	
5/8/13	1620	9.95	100	27.10	7.29	.558	0.66	74.7	170	
5/8/13	1625	9.97	100	25.36	6.83	.557	0.20	64.5	157	
5/8/13	1630	9.99	100	24.99	6.66	.556	0.11	62.1	155	
5/8/13	1635	10.01	100	24.57	6.45	.556	0.06	62.5	150	
5/8/13	1640	10.02	100	24.48	6.34	.558	0.44	62.1	149	
5/8/13	1645	10.03	100	24.47	6.29	.560	0.47	61.5	146	
5/8/13	1650	10.04	100	24.33	6.24	.561	0.26	49.6	140	
5/8/13	1655	10.05	100	24.19	6.19	.561	0.13	44.2	135	
5/8/13	1700	10.06	100	24.12	6.18	.562	0.28	45.2	131	
5/8/13	1705	10.07	100	23.99	6.16	.562	0.18	44.9	125	
5/8/13	1710	10.08	100	23.89	6.15	.563	0.11	28.5	118	
5/8/13	1715	10.10	100	23.72	6.14	.563	0.09	28.3	114	
5/8/13	1720	10.12	100	23.67	6.12	.564	0.09	29.9	98	
5/8/13	1725	10.13	100	23.61	6.13	.564	0.05	28.7	96	
5/8/13	1730	10.14	100	23.59	6.13	.565	0.04	28.3	95	
5/8/13	1735	10.15	100	23.57	6.12	.565	0.04	28.4	95	

Pump Rate: <=0.5 L/min **Drawdown:** <0.33 ft **Measurements:** 3-5 min **Stabilization:** +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: MW18-050813 TIME:

DUPLICATE (D): YES/NO NO
MATRIX SPIKE (MS): YES/NO NO
MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	N	Pump	VOC 8260
1-1 Liter Amber	None	N	Pump	Hexachlorobenzene 8270
1-500 ml plastic	HNO3	Y	Pump	Total metals SW6000/7000
1-250 ml plastic	None	N	Pump	Perchlorate 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

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AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: mw19	Date: 5/8/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Bresinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 6 lines/cover	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: no-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 9.84	Weather Conditions: Clear 53°F
	Total Well Depth (ft) [d]: 33.65	Screened Interval/Pump placement: 23.1-28.1 25.5	Condition of Well/Remarks: Needs paint

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5/8/13	0720	9.90	100	16.49	6.15	5.53	2.32	49.2	8	
5/8/13	0725	9.92	100	16.80	5.91	6.42	0.00	47.4	25	
5/8/13	0730	9.94	100	16.90	5.89	6.59	0.00	52.8	30	
5/8/13	0735	9.96	100	16.93	5.90	6.62	0.00	56.1	31	
5/8/13	0740	9.98	100	16.97	5.90	6.63	0.00	57.0	32	
5/8/13	0745	10.00	100	17.07	5.90	6.63	0.00	58.5	33	
5/8/13	0750	10.01	100	17.12	5.91	6.63	0.00	58.7	33	
5/8/13	0800	10.02	100	17.14	5.91	6.69	0.00	59.0	33	
5/8/13	0805	10.04	100	17.26	5.92	6.74	0.00	58.9	32	
5/8/13	0810	10.05	100	17.28	5.93	6.72	0.00	58.5	32	
5/8/13	0815	10.07	100	17.30	5.93	6.72	0.00	58.7	31	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: mw19-050813 TIME: 0815

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	N	Pump	VOC 8260
1-1 Liter Amber	None	N	Pump	Hexachlorobenzene 8270
1-500 ml plastic	HNO3	Y	Pump	Total metals SW6000/7000
1-250 ml plastic	None	N	Pump	Perchlorate 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: mw21	Date: 5/7/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 611ces/cer	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: mp-spk-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 31.80	Weather Conditions: CLEAR 85°F
	Total Well Depth (ft) [d]: 46.65	Screened Interval/Pump placement: 36.1-41.1 38.50	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5/7/13	1435	31.85	100	33.62	5.72	5.23	0.79	6.1	150	
5/7/13	1440	31.87	100	32.94	5.54	5.31	0.12	6.8	174	
5/7/13	1445	31.89	100	32.54	5.45	5.46	0.00	6.4	182	
5/7/13	1450	31.93	100	32.39	5.44	5.54	0.00	5.9	187	
5/7/13	1455	31.97	100	32.47	5.43	5.59	0.00	5.8	189	
5/7/13	1500	32.00	100	32.60	5.41	5.70	0.00	5.0	190	
5/7/13	1505	32.02	100	32.66	5.40	5.75	0.00	4.6	190	
5/7/13	1510	32.03	100	32.69	5.41	5.76	0.00	3.1	189	
5/7/13	1515	32.05	100	32.72	5.41	5.75	0.00	2.8	189	
5/7/13	1520	32.07	100	32.75	5.41	5.74	0.00	2.4	188	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: mw21-050713 TIME: 1520

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	N	Pump	VOC 8260
1-1 Liter Amber	None	N	Pump	Hexachlorobenzene 8270
1-500 ml plastic	HNO3	N	Pump	TOTAL Metals SW6000/7000
1-250 ml plastic	NONE	N	Pump	Perchlorate 6850
1-250 ml plastic	NONE	N	Pump	Hexavalent Chromium 7196

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

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MONITORING WELL SAMPLE COLLECTION FORM

0012840

LOCATION	Site: 18/24	LocID: MW22	Date: 5/8/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beasign Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 611 Ges/Keu	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: MP-SPK-4P	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 28.49	Weather Conditions:
	Total Well Depth (ft) [d]: 43.70	Screened Interval/Pump placement: 32.5-37.5 35.00	Condition of Well/Remarks:

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5/8/13	1235	28.53	100	26.88	5.97	2.73	2.73	2.9	137	
5/8/13	1240	28.55	100	26.38	6.39	2.75	2.19	1.2	134	
5/8/13	1245	28.56	100	26.28	6.36	2.76	2.10	0.4	167	
5/8/13	1250	28.56	100	26.06	6.08	2.76	1.89	0.9	193	
5/8/13	1255	28.56	100	26.19	6.00	2.76	1.87	0.3	210	
5/8/13	1300	28.57	100	26.40	5.87	2.76	1.87	0.6	217	
5/8/13	1305	28.57	100	26.72	5.92	2.77	1.82	0.3	220	
5/8/13	1310	28.57	100	26.90	5.85	2.78	1.80	0.3	227	
5/8/13	1315	28.58	100	27.12	5.78	2.78	1.78	0.3	232	
5/8/13	1320	28.58	100	27.11	5.76	2.79	1.77	0.1	235	
5/8/13	1325	28.59	100	27.13	5.76	2.79	1.76	0.1	237	
5/8/13	1330	28.59	100	27.04	5.75	2.79	1.75	0.0	238	
5/8/13	1335	28.59	100	27.06	5.75	2.79	1.75	0.0	236	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: MW22-050813 TIME: 1335

DUPLICATE (D): YES/NO NO
MATRIX SPIKE (MS): YES/NO NO
MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	N	Pump	VOC 8260
1-1 Liter Amber	None	N	Pump	Hexachlorobenzene 8270
1-500 ml plastic	HNO3	N	Pump	Total Metals SW6000/7000
1-250 ml plastic	NaOH	N	Pump	Perchlorate 6850
1-250 ml plastic	NaOH	N	Pump	Hexavalent Chromium 7196

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

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AECOM

MONITORING WELL SAMPLE COLLECTION FORM

00412841

LOCATION	Site: 18/24	LocID: mw23	Date: 5/8/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Arasyer Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: bl/cos/Cou	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018707	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: np-sp L-48	
WELL INFO	Casing I.D. (in) [a]: 4"	Static Water Level Reading (ft) [c]: 28.03	Weather Conditions: Clear 86°F
	Total Well Depth (ft) [d]: 46.63	Screened Interval/Pump placement: 25.5-40.5 33.00	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5/8/13	1415	28.08	100	29.16	8.80	1.67	3.41	0.0	111	
5/8/13	1420	28.10	100	27.20	9.38	1.68	2.55	0.0	107	
5/8/13	1425	28.12	100	27.20	9.41	1.67	2.51	0.0	106	
5/8/13	1430	28.14	100	27.18	9.44	1.66	2.48	0.0	105	
5/8/13	1435	28.16	100	25.55	9.48	1.65	2.65	0.0	105	
5/8/13	1440	28.19	100	25.33	9.47	1.65	2.44	0.0	104	
5/8/13	1445	28.22	100	25.45	9.47	1.65	2.58	0.0	103	
5/8/13	1450	28.24	100	25.50	9.48	1.66	2.55	0.0	102	
5/8/13	1455	28.26	100	25.54	9.48	1.66	2.56	0.0	102	
5/8/13	1500	28.28	100	25.50	9.48	1.65	2.54	0.0	102	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: MW23-050813 TIME: 1500

DUPLICATE (D): YES/NO NO
MATRIX SPIKE (MS): YES/NO NO
MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	N	Pump	VOC 8260
1-1 Liter Amber	None	N	Pump	Hexachlorobenzene 8270
1-500 ml plastic	HNO3	N	Pump	Total Metals SW6000/7000
1-250 ml plastic	None	N	Pump	Perchlorate 6850
1-250 ml plastic	None	N	Pump	Hexavalent Chromium 7196

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

00122842

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18124	LocID: MW-109	Date: 5/10/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 611 Geotech	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: MP-SP14-4P	
WELL INFO	Casing I.D. (in) [a]: 2"	Static Water Level Reading (ft) [c]: 30.20	Weather Conditions: CLEAR 90°F
	Total Well Depth (ft) [d]: 38.10	Screened Interval/Pump placement: 20-35 33.00	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-10-13	1545	30.20	100	32.33	5.93	1.73	1.16	26.7	174	
5-10-13	1550	30.23	100	29.66	6.46	1.83	0.56	25.1	188	
5-10-13	1555	30.26	100	29.22	6.49	1.85	0.38	25.1	192	
5-10-13	1600	30.29	100	29.31	6.49	1.83	0.30	24.9	196	
5-10-13	1605	30.32	100	29.35	6.50	1.81	0.29	24.9	196	
5-10-13	1610	30.35	100	29.37	6.51	1.77	0.40	25.5	196	
5-10-13	1615	30.38	100	29.40	6.52	1.73	0.44	25.1	195	
5-10-13	1620	30.41	100	29.45	6.53	1.71	0.46	24.9	195	
5-10-13	1625	30.44	100	29.48	6.52	1.71	0.45	25.3	194	
5-10-13	1630	30.47	100	29.51	6.52	1.70	0.46	25.0	194	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 109-051013 TIME: 1630

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	NO	pump	VOC - 8260
1-1 Liter Am Bar	NA	NO	Pump	SVOC - 8270
1-500 ml plastic	HNO3	Yes	Pump	metals - SW 6000/7000
1-250 ml plastic	NA	NO	pump	perchlorate - 6850

00122843

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: MW-120	Date: 5/10/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID#: 611 Ges/WLP	Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: Mp-SPK-4P	
WELL INFO	Casing I.D. (in) [a]: 2"	Static Water Level Reading (ft) [c]: 13.42	Weather Conditions: Clear 89°F
	Total Well Depth (ft) [d]: 26.81	Screened Interval/Pump placement: 9.2-24.2 16.70	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-10-13	1420	13.55	100	27.64	5.40	2.43	0.33	329	239	
5-10-13	1425	13.62	75	26.39	5.45	2.46	0.00	317	234	
5-10-13	1430	13.67	75	25.64	5.53	2.37	0.00	252	231	
5-10-13	1435	13.70	75	24.75	5.57	2.30	0.00	254	230	
5-10-13	1440	13.75	75	24.21	5.55	2.31	0.00	240	231	
5-10-13	1445	13.77	75	24.41	5.52	2.16	0.00	242	233	Stopped pumping well drawing down too fast. Bailing well with 1" Bailer Bailed 2.5 Gallons well RAN DRY will come back to Sample.
~~5-10-13~~										
~~5-10-13~~										
~~0915~~										
5/11/13	0915	13.42	—	21.62	564	1.69	9.70	97.3	166	Sampled with bailer

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: 120-051103 TIME: 0915

DUPLICATE (D): YES/NO Yes

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
6 - 40 ml glass	HCL	NO	Bailer	VOC - 8260
2 - 500 ml plastic	HNO3	Yes	Bailer	Metals - SW6000/7000
2 - 250 mL plastic	NA	NO	Bailer	Perchlorate - 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: MW-123	Date: 5/10/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185	Recorded By: Boesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: Solinst/Geotech	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit #	Sampling Equipment: Peristaltic/Bladder/Bailer ID#:	
WELL INFO	Casing I.D. (in) [a]: 2"	Static Water Level Reading (ft) [c]: 13.22	Weather Conditions: Clear 90°F
	Total Well Depth (ft) [d]: 20.00	Screened Interval/Pump placement: 2.8-17.8	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/in ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
~~1510~~										
5-10-13	1510	13.22								ONLY 4 ft in SCREEN, BAILING
5-10-13	1515	19.95								well with 1" BAILER
										BAILED DRY 1.5 gallons
										Removed
5/11/13	100	13.80		22.64	6.34	.516	8.58	6.5	170	Sampled with bailer

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: 123-051113 TIME: 1000

DUPLICATE (D): YES/NO NO
MATRIX SPIKE (MS): YES/NO NO
MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	NO	Bailer	VOL - 8260
1-1 Liter Amber	NA	NO	Bailer	SVOL - 8270
1-500 ml plastic	HNO3	NO	Bailer	Metals - SW6000/7000
1-250 ml plastic	NA	NO	Bailer	Perchlorate - 6850

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: MW-126	Date: 5/11/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 611 Gas/YEL	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID# MP-SPLL-4P	
WELL INFO	Casing I.D. (in) [a]: 2"	Static Water Level Reading (ft) [c]: 30.33	Weather Conditions: Clear 75°F
	Total Well Depth (ft) [d]: 38.85	Screened Interval/Pump placement: 22.3-37.3 33.50	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5/11/13	1040	30.35	100	26.00	5.57	6.67	2.42	19.6	276	
5-11-13	1045	30.37	100	24.94	6.02	6.86	1.41	19.6	222	
5-11-13	1050	30.39	100	25.51	6.05	6.68	1.06	13.0	222	
5-11-13	1055	30.41	100	25.85	6.06	6.63	0.89	10.1	224	
5-11-13	1100	30.42	100	26.03	6.07	6.60	0.79	9.7	232	
5-11-13	1105	30.44	100	26.18	6.07	6.59	0.73	8.6	245	
5-11-13	1110	30.45	100	26.49	6.08	6.64	0.71	6.7	263	
5-11-13	1115	30.45	100	26.53	6.08	6.65	0.69	6.0	267	
5-11-13	1120	30.45	100	26.60	6.08	6.65	0.70	6.1	268	
5-11-13	1125	30.45	100	26.63	6.08	6.65	0.70	5.9	269	

Pump Rate: <=0.5 L/min Drawdown: <0.33 ft Measurements: 3-5 min Stabilization: +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU Ideal), for 4 consecutive readings

SAMPLE ID: 126-051113 TIME: 1125

DUPLICATE (D): YES/NO NO
MATRIX SPIKE (MS): YES/NO NO
MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
1-500ML Plastic	HNO3	NO	Pump	BARIUM - SW6000/7000

AECOM

MONITORING WELL SAMPLE COLLECTION FORM

LOCATION	Site: 18/24	LocID: MW-129	Date: 5/10/13
	Project: Longhorn Army Ammunition Plant	Project No. 60274185.0013BA	Recorded By: Beesinger Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: Horiba U-52	Water Interface Probe: Water Level Indicator: ID# 61/Gos/Geo	Min Recharge Level = (TD-DTW(0.80)) - TD
	Unit # 018704	Sampling Equipment: Peristaltic/Bladder/Bailer ID#: /	
WELL INFO	Casing I.D. (in) [a]: 2"	Static Water Level Reading (ft) [c]: 26.80	Weather Conditions:
	Total Well Depth (ft) [d]: 36.10	Screened Interval/Pump placement: 19.6-34.6 29.00	Condition of Well/Remarks: GOOD

CASING INFO												
Casing I.D. (in) [a]:	0.75	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (gal/lin ft) [b]:	0.023	0.09	0.16	0.20	0.37	0.65	0.75	1.0	1.5	2.0	2.6

Date	Time (24 hr)	Water Level (FTOC)	Pumping Rate (mL/min)	Temp. (°C)	pH	Cond (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mv)	Remarks (odor, clarity, etc.)
5-10-13	1300	26.88	100	25.44	5.46	1.49	5.93	25.6	178	
5-10-13	1305	26.95	100	25.06	5.47	1.50	5.77	22.2	189	
5-10-13	1310	26.03	100	26.19	5.49	1.51	5.56	19.1	201	
5-10-13	1315	26.04	75	26.48	5.49	1.50	5.33	18.5	212	
5-10-13	1320	26.05	75	26.32	5.49	1.50	5.49	18.0	219	
5-10-13	1325	26.06	75	26.19	5.49	1.50	5.53	18.0	220	
5-10-13	1330	26.07	75	26.13	5.49	1.49	5.50	18.0	222	
5-10-13	1335	26.08	75	26.18	5.49	1.50	5.51	18.1	223	
5-10-13	1340	26.09	75	26.20	5.49	1.50	5.50	18.0	223	

Pump Rate: <=0.5 L/min **Drawdown:** <0.33 ft **Measurements:** 3-5 min **Stabilization:** +/-10% C, +/-0.1 pH, +/-3% Cond, +/-10% DO, +/-10%Turb(<=10 NTU ideal), for 4 consecutive readings

SAMPLE ID: 129-051013 TIME: 1340

DUPLICATE (D): YES/NO NO

MATRIX SPIKE (MS): YES/NO NO

MATRIX DUPLICATE (MD): YES/NO NO

CO= LEL= OXY= H2S=

No. Containers/Volume/Type	Preserv.	Filter (Y/N)	Pump OR Bailer	Parameter(s)
3-40 ml glass	HCL	NO		VOC - 8260
1-500 ml plastic	HNO3	YES		metals - SW 6000/7000
1-250 ml plastic	NA	NO		perchlorate - 6850

APPENDIX D: Quality Control Summary Report & Laboratory Analytical Reports (on a Compact Disc)

QUALITY CONTROL SUMMARY REPORT

POST-SCREENING INVESTIGATION REPORT FOR LHAAP-18/24, BURNING GROUND NO. 3 AND UNLINED EVAPORATION POND

LONGHORN ARMY AMMUNITION PLANT

KARNACK, TEXAS

Prepared For:

U.S. Army Corps of Engineers

Prepared By:

AECOM Technical Services

July 2013

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1 INTRODUCTION

AECOM reviewed eight data packages from Microbac Laboratory Services, Marietta, OH. Groundwater samples were collected September 24 through October 1, 2012 at Site 18/24 at Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas. Data were reviewed for conformance to the requirements of the following guidance documents: Automated Data Review by Laboratory Data Consultants (ADR.net), United States Environmental Protection Agency (EPA) Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, (EPA, July 2002), and EPA Contract Laboratory Program National Functional Guidelines for Low Concentration Organic Data Review, (EPA, June 2001).

1.1 Intended Use of Data

The objective of this sampling event was to collect data to update a Feasibility Study to include data gaps.

Analyses requested included:

- SW8260 – Volatiles by GC/MS
- SW6850 – Perchlorates by LC/MS/MS
- SW6010/6020 – Metals
- SW9034 – Sulfide
- RSK 175- Methane, Ethane, Ethene
- SW8270 – Hexachlorobenzene by GC/MS
- SW7470/7471 – Mercury
- SW9056 – Common Anions
- SM2320B – Alkalinity
- SM3500Fe-B – Ferrous Iron
- E415.1 – Total Organic Carbon
- SW7196A/SM3500-Cr- Hexavalent Chromium
- SW9045 - pH

Table 2 lists the sample identifications and their associated laboratory identifications. Table 3 lists qualified results with the associated quality control parameter that was exceeded. Table 4 lists field precision sample exceedences.

1.2 Preservation and Holding Times

Sample identification data were evaluated for agreement with the chain-of-custody (COC). All samples were received in appropriate containers, within the proper temperature range, in good condition, and with the required signatures.

1.3 Calibrations

Initial calibration criteria modification includes RSD< or = to 30%, two compounds allowed up to 40%. If the continuing calibration verification (CCV) compound exceeds 30% drift, the compound is checked in the LCS, if both are outside recovery limits, the compound is rejected, R. If only the CCV exceeds recovery criteria and is less than ± 40% drift, then the compound is qualified J or UJ.

1.3.1 Continuing Calibration Verifications (CCV)

1.3.1.1 SW8260

CCV WG423047-02 has dichlorodifluoromethane at 72% in SDG L13030214. Associated samples are non-detect and are UJ qualified.

CCV WG424425-02 has 2-butanone at 74% and 4-methyl-2-pentanone at 75.6% in SDGs L13030390 and L13030494. Associated samples are non-detect and are UJ qualified.

CCV WG424459-02 has chloromethane at 78% and acetone at 79.4% in SDG L13030711. Associated samples are J or UJ qualified.

CCV WG431099-02 has chloromethane at 79%, acetone at 79%, 2-butanone at 79%, and 2-hexanone at 78.6% in SDG L13050698. Associated samples are non-detect and are UJ qualified.

CCV WG431767-02 has acetone at 71.6% and 1,2-dibromo-3-chloropropane at 78% in SDG L13050770. Associated samples are J or UJ qualified.

CCV WG431573-02 has 2-butanone at 78.6%, 2-hexanone at 78.8% and 4-methyl-2-pentanone at 77.6% in SDG L13050810. Associated samples are non-detect and are UJ qualified.

CCV WG431866-02 has 2-butanone at 69.6%, 1,3-dichloropropane at 79.2%, 2-hexanone at 66.4%, and 4-methyl-2-pentanone at 70.8% in SDG L13050831. Associated samples are non-detect and are UJ qualified.

CCV WG432006-02 has acetone at 62%, bromoform at 77.4%, bromomethane at 69.8%, 2-butanone at 78.2%, 1,2-dibromo-3-chloropropane at 70% and 4-methyl-2-pentanone at 79.2%, and 1,2,3-trichloropropane at 76.6% in SDG L13050831. Associated samples are non-detect and are UJ qualified.

CCV WG431767-02 has acetone at 71.6% and 1,2-dibromo-3-chloropropane at 78% in SDG L13050864. Samples are non-detect and are UJ qualified.

CCV WG431865-02 has acetone at 73.2%, 2-butanone at 69.6%, 1,3-dichloropropane at 79.2%, 2-hexanone at 66.6%, and 4-methyl-2-pentanone at 70.8% in SDG L13050872. Samples are non-detect and are UJ qualified.

CCV WG432000-02 has acetone at 62.6%, chloromethane at 63.2%, bromomethane at 69.2%, 2-butanone at 67.8%, 1,2-dibromo-3-chloropropane at 74.2%, 2-hexanone at 74.8%, and 4-methyl-2-pentanone at 73.4% in SDGs L13051023 and L13051024. Associated samples are non-detect and are UJ qualified.

CCV WG432224-02 has 2-hexanone at 73.2%, 4-methyl-2-pentanone at 74%, acetone at 80%, bromomethane at 71%, 2-butanone at 76%, and 1,3-dichloropropane at 79.2% in SDGs L13051024 and L13051032. Associated samples are non-detect and are UJ qualified.

CCV WG432002-02 has acetone at 79.4%, 2-butanone at 79.4%, 2-hexanone at 68.8%, and 4-methyl-2-pentanone at 76.6% in SDG L13051032 and L13051033. Associated samples are non-detect and are UJ qualified.

1.3.1.2 SW6010

Low level CCV WG434798-22 has calcium at 133% and sodium at 164%, limits are 70-130% in SDG L13060259. Associated samples are J qualified.

1.3.1.3 SW6020

CCV WG430275-18 has calcium at 89.6%, control limits are 90-110% in SDG L13050432

Low level CCV WG432423-41 has barium at 150%, limits are 70-130% in SDG L13051023. Associated samples are J qualified.

Table 3 shows qualified analytical data.

1.3.2 Blanks

Where contamination by a target analyte of one of the various blanks was found, if the sample result for an associated sample was non-detect or less than 5X (10X for common laboratory contaminants) the analyte concentration in the blank, the corresponding sample result for the analyte was qualified U. Where the sample result for the affected analyte was greater than 5X the amount in the blank, no qualifier was applied.

1.3.2.1 SW8260

Method blank WG423988-01 has methylene chloride at 3.06 ug/kg in SDG L13030390. Associated samples are U qualified if their concentrations are less than 5X the blank contamination.

Method blank WG425813-01 has methylene chloride at 152 ug/kg in SDG L13040030. Associated sample is U qualified.

Equipment blank EB-010413 has chloroform at 0.428 ug/L and methylene chloride at 0.414 ug/L in SDG L13040090. Associated samples are U qualified if their concentrations are less than 5X the blank contamination.

Equipment rinse 050713 has chloroform at 0.198 ug/L in SDG L13050365. Associated samples are U qualified if their concentrations are less than 5X the blank contamination.

1.3.2.2 SW6010

Method blank WG430910-02 has aluminum at 0.0579 mg/L in SDG L13050699. Associated samples are U qualified if their concentrations are less than 5X the blank contamination.

Method blank WG433640-02 has aluminum at 0.0569 mg/L in SDG L13060259. Associated samples are U qualified if their concentrations are less than 5X the blank contamination.

1.3.2.3 SW6020

Method blank WG431982-02 has chromium at 0.00163 mg/L in SDG L13051023. Associated samples are U qualified if their concentrations are less than 5X the blank contamination.

Continuing calibration blanks WG432423-11 through WG432423-26 have antimony contamination in ranges of 0.211 ug/L through 0.273 ug/L in SDG L13051023. Associated samples are U qualified if their concentrations are less than 5X the blank contamination.

Initial calibration blank WG432423-06 has antimony at 0.262 ug/L in SDGs L13051024 and L13051032. Associated samples are U qualified if their concentrations are less than 5X the blank contamination.

1.3.2.4 SW7471

Method blank WG431055-03 has mercury at 0.000107 mg/L in SDGs L13050810 and L13050864. Associated samples are U qualified if their concentrations are less than 5X the blank contamination.

1.3.2.5 RSK 175

Method blank WG430973-01 has methane at 3.53 ug/L in SDGs L13050864 and L13050872. Associated samples are U qualified if their concentrations are less than 5X the blank contamination.

Table 3 shows qualified analytical data.

1.3.3 Surrogates

1.3.3.1 SW8260

18CPTMW01SW-051613 has dibromofluoromethane at 182%, limits are 85-115% and 1,2-dichloroethane-d4 at 152%, limits are 70-120% in SDG L13051032. Detects are J qualified.

1.3.3.2 SW8270

18CPTMW19-051313 has 2-fluorobiphenyl at 41.1%, control limits are 50-110% in SDG L13050696. Associated sample is non-detect and is UJ qualified.

123-051113 has 2-fluorobiphenyl at 38.2%, control limits are 50-110% in SDG L13050697. Associated sample is non-detect and is UJ qualified.

All surrogates are within criteria.

1.3.4 Laboratory Control Sample (LCS)

1.3.4.1 SW8260

LCS WG422947-02 has trichloroethene and vinyl chloride at 131% and 132%. Control limits are 75-125% and 60-125%, respectively in SDG L13030062. Associated sample is J qualified for detects.

LCS WG422876-02 has dichlorofluoromethane at 29.8%, control limits are 30-155% in SDG L13030210. Associated sample is non-detect are is UJ qualified.

LCS WG431720-02/03 has acetone RPD at 31.8%, limit is 30% in SDGs L13050699 and L13050700. Associated sample is non-detect and is UJ qualified.

1.3.4.2 SW8270

LCS WG430124-02/03 has hexachlorobenzene at 38.3% in SDG L13050490. Associated sample is non-detect are is UJ qualified.

LCS WG430124-02/03 has hexachlorobenzene RPD at 38.3%, control limits are 30% in SDG L13050546. Associated sample is non-detect are is UJ qualified.

LCS WG430488-02/03 has hexachlorobenzene at 56.3% and 88.1%, control limits are 50-110% in SDG L13050698. The RPD is outside criteria at 44%, control limit is 30%. Associated sample is non-detect and is UJ qualified.

LCS WG430488-02/03 has hexachlorobenzene RPD at 44.1%, limit is 30% in SDGs L13050699, L13050754, L13050770, L13050771, and L13050810. Associated samples are non-detect and are UJ qualified.

Table 3 shows qualified analytical data.

1.3.5 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

1.3.5.1 SW8260

18CPTMW22-051513 was chosen for the MS/MSD in SDG L13050831. Trichloroethene is 61.2% and 58.2%, limits are 70-125%. The parent sample is J qualified.

1.3.5.2 SW6020

18WW09-050913 was chosen for the MS/MSD in SDG L13050490. Manganese is 126% and 66.6% with control limits at 80-120%. The parent sample is J qualified.

18CPTMW22-051513 was chosen for the MS/MSD in SDG L13050831. Barium is 136% and 117%, limits are 80-120%. Parent sample is J qualified.

Table 3 shows qualified analytical data.

1.3.6 Field Precision

There are a few samples that have %RPD outside the 30% criteria and are shown in Tables 3 and 4.

2 DATA USABILITY SUMMARY

The data are usable for the intended purposes of the project. The data quality objectives have been met for the project.

Table 1: Completeness by Method

Method	Total Analytes	No. of Rejected Results	% Completeness
Groundwater			
SW8260	7820	0	100
SW6850	88	0	100
SW6010	496	0	100
SW6020	882	0	100
SW7470A	62	0	100
E415.1	3	0	100
SW7196A	9	0	100
SW8270	42	0	100
SW9056	6	0	100
RSK 175	9	0	100
SM2320B	3	0	100
SM3500-Cr	2	0	100
SM3500Fe	3	0	100
Soil			
SW8260	4284	0	100
SW6010	456	0	100
SW6020	140	0	100
SW6850	35	0	100
SW9034	52	0	100
SW9045	39	0	100
SW7471	10	0	100
SW7196	10	0	100

Table 2: Field Sample Identification and Laboratory Identification

ClientSampleID	LabSampleID	Collected	SW8260	SW6850	SW6010	SW9034	SW6010/ 6020	SW7196A	SW8270	RSK 175	SW9056	SM2320	Fe	E415.1
18CPT01(7-8)	L13030062-01	2/26/2013	X	X										
18CPT01(15-16)	L13030062-02	2/26/2013	X	X										
18CPT01(31-32)	L13030062-03	2/26/2013	X	X										
18CPT01(40-40.5)	L13030062-04	2/26/2013	X	X										
18CPT08(6-7)	L13030062-05	2/26/2013	X	X										
18CPT08(37.5-38)	L13030062-06	2/26/2013	X	X										
Equipment blank01	L13030062-07	2/26/2013	X	X										
TB	L13030062-08	2/26/2013	X											
18CPT-01,69.5-70.5	L13030210-01	3/6/2013	X	X										
18CPT-13,35-36	L13030213-01	3/5/2013	X											
18CPT-13,35-36	L13030213-02	3/6/2013		X										
Equipment blank	L13030213-03	3/6/2013	X	X										
18CPT10(17-18)	L13030214-01	3/4/2013	X	X	X	X								
18CPT10(19-20)	L13030214-02	3/4/2013	X	X	X	X								
18CPT10(27-27.5)	L13030214-03	3/4/2013	X	X	X	X								
18CPT10(28-29)	L13030214-04	3/4/2013	X	X	X	X								
18CPT10(28-29)dup01	L13030214-05	3/4/2013	X	X	X	X								
18CPT12(13-14)	L13030214-06	3/4/2013	X	X	X	X								
18CPT12(18-19)	L13030214-07	3/4/2013	X	X	X	X								
18CPT12(22-23)	L13030214-08	3/4/2013	X	X	X	X								
18CPT12(28-29)	L13030214-09	3/4/2013	X	X	X	X								
Equipment blank04	L13030214-10	3/4/2013	X	X										
Equipment blank02	L13030214-11	3/4/2013	X	X										
18CPT06(9-10)	L13030238-01	3/7/2013	X	X	X	X								
18CPT06(9-10)dup02	L13030238-02	3/7/2013	X	X	X	X								

ClientSampleID	LabSampleID	Collected	SW8260	SW6850	SW6010	SW9034	SW6010/ 6020	SW7196A	SW8270	RSK 175	SW9056	SM2320	Fe	E415.1
trip blank	L13030238-03	3/7/2013	X											
18CPT06(19-20)	L13030314-01	3/9/2013	X	X	X	X								
18CPT06-(38-39)	L13030314-02	3/9/2013	X	X	X	X								
18CPT06(43-44)	L13030314-03	3/9/2013	X	X	X	X								
18CPT13(18-19)	L13030314-04	3/9/2013	X	X	X	X								
18CPT13(27.5-28.5)	L13030314-05	3/9/2013	X	X	X	X								
18CPT13(35-36)	L13030314-06	3/9/2013	X	X	X	X								
18CPT13(43-44)	L13030314-07	3/9/2013	X	X	X	X								
Equipment blank-05	L13030314-08	3/9/2013	X	X										
trip blank	L13030314-09	3/9/2013	X											
18CPT-03-10-11	L13030390-01	3/11/2013	X	X	X	X								
18CPT-03-21-22	L13030390-02	3/11/2013	X	X	X	X								
18CPT-03-34-35	L13030390-03	3/11/2013	X	X	X	X								
18CPT-03-43-44	L13030390-04	3/11/2013	X	X	X	X								
Equipment blank	L13030390-05	3/11/2013	X	X										
trip blank	L13030390-06	3/11/2013	X											
18CPT07(7-8)-120313	L13030494-01	3/12/2013	X	X	X	X								
18CPT07(17-18)-120313	L13030494-02	3/12/2013	X	X	X	X								
18CPT07(29-30)-120313	L13030494-03	3/12/2013	X	X	X	X								
18CPT07(29-30)-120313MS	L13030494-04	3/12/2013	X	X	X	X								
18CPT07(29-30)-120313SD	L13030494-05	3/12/2013	X	X	X	X								
18CPT07(37-38)-120313	L13030494-06	3/12/2013	X	X	X	X								
18CPT07(37-38)-120313D	L13030494-07	3/12/2013	X	X	X	X								
EB-120313	L13030494-08	3/12/2013	X	X										
TB-120313	L13030494-09	3/12/2013	X											

ClientSampleID	LabSampleID	Collected	SW8260	SW6850	SW6010	SW9034	SW6010/ 6020	SW7196A	SW8270	RSK 175	SW9056	SM2320	Fe	E415.1
18CPT08(64)-130313	L13030539-01	3/13/2013	X	X										
18CPT12(64)-140313	L13030539-02	3/14/2013	X	X										
EB-140313	L13030539-03	3/14/2013	X	X										
TB-140313	L13030539-04	3/14/2013	X											
18CPT-10, 63-64, 180313	L13030711-01	3/18/2013	X	X										
18CPT-15, 14-18, 180313	L13030711-02	3/18/2013	X	X										
18CPT-15, 25-29, 180313	L13030711-03	3/18/2013	X	X										
18CPT-15, 38-42, 180313	L13030711-04	3/18/2013	X	X										
EB-180313	L13030711-05	3/18/2013	X	X										
TB-180313	L13030711-06	3/18/2013	X											
EB-200313	L13030857-01	3/20/2013	X	X										
18CPT18(31-35)200313	L13030857-02	3/20/2013	X	X										
TB-200313	L13030857-03	3/20/2013	X											
EB-210313	L13030857-04	3/21/2013	X	X										
18CPT18(44-48)210313	L13030857-05	3/21/2013	X	X										
18CPT18(44/48)210313D	L13030857-06	3/21/2013	X	X										
18CPT18(45-49)210313	L13030857-07	3/21/2013	X	X										
18CPT17(30-34)220313	L13030957-01	3/22/2013	X											
18CPT19(30-34)220313	L13030957-02	3/22/2013	X	X										
Facility water	L13030957-03	3/22/2013	X	X										
EB-220313	L13030957-04	3/22/2013	X	X										
TB-220313	L13030957-05	3/22/2013	X											
18CPT26-(9-10)250313	L13031003-01	3/25/2013	X	X			X	X						
18CPT26(22-23)-250313	L13031003-02	3/25/2013	X	X			X	X						
18CPT25(15-16)250313	L13031003-03	3/25/2013	X	X			X	X						

ClientSampleID	LabSampleID	Collected	SW8260	SW6850	SW6010	SW9034	SW6010/ 6020	SW7196A	SW8270	RSK 175	SW9056	SM2320	Fe	E415.1
18CPT25(21-22)250313	L13031003-04	3/25/2013	X	X			X	X						
EB-25031301	L13031003-05	3/25/2013	X	X										
EB-25031302	L13031003-06	3/25/2013	X	X										
TB-250313	L13031003-07	3/25/2013	X											
18CPT25(28-32)-260313	L13031019-01	3/26/2013	X											
18CPT25(31-32)260313	L13031067-01	3/26/2013	X	X			X	X						
EB-260313	L13031067-02	3/26/2013	X	X										
TB-260313	L13031067-03	3/26/2013	X											
18CPT21(24-28)270313	L13031174-01	3/27/2013	X	X										
EB-270313	L13031175-01	3/27/2013	X	X										
18CPT27(7-8)280313	L13031175-02	3/27/2013	X	X	X	X								
18CPT27(17-18)280313	L13031175-03	3/27/2013	X	X	X	X								
18CPT27(26-27)280313	L13031175-04	3/27/2013	X	X	X	X								
18CPT27(33-34)280313	L13031175-05	3/28/2013	X	X	X	X								
EB-280313	L13031176-01	3/28/2013	X	X										
18CPT21(16-17)280313	L13031176-02	3/28/2013	X	X			X	X						
18CPT21(27-28)280313	L13031176-03	3/28/2013	X	X			X	X						
18CPT21(48-49)280313	L13031176-04	3/28/2013	X	X			X	X						
18CPT21(48-49)280313D	L13031176-05	3/28/2013	X	X			X	X						
18CPT02(8-9)280313	L13031176-06	3/28/2013	X	X	X	X								
18CPT02(21-22)280313	L13031176-07	3/28/2013	X	X	X	X								
18CPT02(29-30)280313	L13031176-08	3/28/2013	X	X	X	X								
18CPT02(41-42)280313	L13031176-09	3/28/2013	X	X	X	X								
TB-28031301	L13031176-10	3/28/2013	X											
TB-28031302	L13031176-11	3/28/2013	X											

ClientSampleID	LabSampleID	Collected	SW8260	SW6850	SW6010	SW9034	SW6010/ 6020	SW7196A	SW8270	RSK 175	SW9056	SM2320	Fe	E415.1
18CPT20(7-8)290313	L13040030-01	3/29/2013	X	X	X	X								
18CPT20(16-17)290313	L13040030-03	3/29/2013	X	X	X	X								
EB-290313	L13040030-04	3/29/2013	X	X										
18CPT20(32-33)290313	L13040030-05	3/29/2013	X	X	X	X								
TB-290313	L13040030-06	3/29/2013	X											
18CPT05(15-16)010413	L13040090-01	4/1/2013	X	X	X	X								
18CPT05(25-26)010413	L13040090-02	4/1/2013	X	X	X	X								
18CPT05(31-32)010413	L13040090-03	4/1/2013	X	X	X	X								
18CPT05(39-40)010413	L13040090-04	4/1/2013	X	X	X	X								
EB010413	L13040090-05	4/1/2013	X	X										
18CPT09(6-7)010413	L13040090-06	4/1/2013	X	X	X	X								
18CPT09(12-13)010413	L13040090-07	4/1/2013	X	X	X	X								
18CPT09(16-17)010413	L13040090-08	4/1/2013	X	X	X	X								
18CPT09(21-22)010413	L13040090-09	4/1/2013	X	X	X	X								
TB-01041301	L13040090-10	4/1/2013	X											
TB-01041302	L13040090-11	4/1/2013	X											
18/24 Stockpile-040913	L13040457-01	4/9/2013	X	X	X			X						
Equipment blank	L13050365-01	5/7/2013	X	X	X									
C06-050713	L13050365-02	5/7/2013	X	X	X									
18WW18050713F	L13050365-03	5/7/2013	X	X										
C08-050713	L13050365-04	5/7/2013	X	X	X									
MW3-050713	L13050365-05	5/7/2013	X	X	X			X	X					
MW21-050713	L13050365-06	5/7/2013	X	X	X			X	X					
trip blank	L13050365-07	5/7/2013	X											
MW22-050813	L13050432-01	5/8/2013	X	X	X			X	X					

ClientSampleID	LabSampleID	Collected	SW8260	SW6850	SW6010	SW9034	SW6010/ 6020	SW7196A	SW8270	RSK 175	SW9056	SM2320	Fe	E415.1
MW23-050813	L13050432-02	5/8/2013	X	X	X			X	X					
trip blank	L13050432-03	5/8/2013	X											
CO3-050713	L13050433-01	5/7/2013	X	X	X									
MW19-050813	L13050433-02	5/7/2013	X	X					X					
MW19-050813F	L13050433-03	5/7/2013			X									
MW10-050813	L13050433-04	5/7/2013	X	X										
MW10-050813F	L13050433-05	5/7/2013			X									
MW10-050813-dup	L13050433-06	5/7/2013	X	X										
MW10-050813F-dup	L13050433-07	5/7/2013			X									
trip blank	L13050433-08	5/7/2013	X											
MW18-050813	L13050490-01	5/8/2013	X	X					X					
MW18-050813F	L13050490-02	5/8/2013			X									
18WW20-050913	L13050490-03	5/9/2013	X	X										
18WW20-050913F	L13050490-04	5/9/2013			X									
18WW09-050913	L13050490-05	5/9/2013	X	X	X									
18WW09-050913MS	L13050490-06	5/9/2013	X	X	X									
18WW09-050913SD	L13050490-07	5/9/2013	X	X	X									
MW6-050913	L13050490-08	5/9/2013	X	X	X									
trip blank	L13050490-09	5/9/2013	X											
MW9-050913	L13050546-01	5/9/2013	X	X	X			X	X					
MW9-050913-dup	L13050546-02	5/9/2013	X	X	X			X	X					
MW2-050913	L13050546-03	5/9/2013	X	X	X			X	X					
trip blank	L13050546-04	5/9/2013	X											
18CPTMW19-051313	L13050696-01	5/13/2013	X	X					X					
18CPTMW19F-051313	L13050696-02	5/13/2013			X									

ClientSampleID	LabSampleID	Collected	SW8260	SW6850	SW6010	SW9034	SW6010/ 6020	SW7196A	SW8270	RSK 175	SW9056	SM2320	Fe	E415.1
Trip blank	L13050696-03	5/13/2013	X											
123-051113	L13050697-01	5/11/2013	X	X	X				X					
126-051113	L13050697-02	5/11/2013			X (Ba only)									
C04-051113	L13050697-03	5/11/2013	X	X										
C04-051113F	L13050697-04	5/11/2013			X									
C04-051113MS	L13050697-05	5/11/2013	X	X										
C04-051113FMS	L13050697-06	5/11/2013			X									
C04-051113SD	L13050697-07	5/11/2013	X	X										
C04-051113-FSD	L13050697-08	5/11/2013			X									
Trip blank	L13050697-09	5/11/2013	X											
C02-050913	L13050698-01	5/9/2013	X	X										
C02-050913F	L13050698-02	5/9/2013			X									
MW17-051013	L13050698-03	5/10/2013	X	X	X				X					
MW16-051013	L13050698-04	5/10/2013	X	X					X					
MW16-051013F	L13050698-05	5/10/2013			X									
129-051013	L13050698-06	5/10/2013	X	X										
129-051013F	L13050698-07	5/10/2013			X									
trip blank	L13050698-08	5/10/2013	X											
18WW22-051313	L13050699-01	5/13/2013	X	X	X									
equipment blank	L13050699-02	5/13/2013	X	X	X				X					
18CPTMW14-051313	L13050699-03	5/13/2013	X	X	X				X					
Trip blank	L13050699-04	5/13/2013	X											
MW5-051313	L13050700-01	5/13/2013	X	X	X			X	X					

ClientSampleID	LabSampleID	Collected	SW8260	SW6850	SW6010	SW9034	SW6010/ 6020	SW7196A	SW8270	RSK 175	SW9056	SM2320	Fe	E415.1
Trip blank	L13050700-02	5/13/2013	X											
MW7-051413	L13050754-01	5/14/2013	X	X	X			X	X					
Trip blank	L13050754-02	5/14/2013	X											
18CPTMW23-051313	L13050770-01	5/13/2013	X	X	X				X					
18CPTMW23-051313-dup	L13050770-02	5/13/2013	X	X	X				X					
18CPTMW24-051313	L13050770-03	5/13/2013	X	X	X				X					
Trip blank	L13050770-04	5/13/2013	X											
18CPTMW07-081413	L13050771-01	5/14/2013	X	X	X				X					
Trip blank	L13050771-02	5/14/2013	X											
109-051013	L13050810-01	5/11/2013	X	X					X					
109-051013F	L13050810-02	5/11/2013			X									
120-051113	L13050810-03	5/11/2013	X	X										
120-051113F	L13050810-04	5/11/2013			X									
120-051113Dup	L13050810-05	5/11/2013	X	X										
120-051113Fdup	L13050810-06	5/11/2013			X									
Trip blank	L13050810-07	5/11/2013	X											
18CPTMW15-051413	L13050831-01	5/14/2013	X	X	X				X					
18CPTMW22-051513	L13050831-02	5/14/2013	X	X	X				X					
18CPTMW22-051513MS	L13050831-03	5/14/2013	X	X	X				X					
18CPTMW22-051513SD	L13050831-04	5/14/2013	X	X	X				X					
Trip blank	L13050831-05	5/14/2013	X											
18WW08-051513	L13050864-01	5/15/2013	X	X	X				X	X	X	X	X	X
Trip blank	L13050864-02	5/15/2013	X											
18CPTMW18-051513	L13050872-01	5/15/2013	X	X	X				X	X	X	X	X	X
Trip blank	L13050872-02	5/15/2013	X											

ClientSampleID	LabSampleID	Collected	SW8260	SW6850	SW6010	SW9034	SW6010/ 6020	SW7196A	SW8270	RSK 175	SW9056	SM2320	Fe	E415.1
18CPTMW04SW-051613	L13051023-01	5/16/2013	X	X					X					
18CPTMW04SWF-051613	L13051023-02	5/16/2013			X									
18CPTMW04SW-051613Dup	L13051023-03	5/16/2013	X	X					X					
18CPTMW04SWF-051613dup	L13051023-04	5/16/2013			X									
18CPTMW04-051613	L13051023-05	5/16/2013	X	X	X				X					
Trip blank	L13051023-06	5/16/2013	X											
18CPTMW06-051713	L13051024-01	5/17/2013	X	X					X					
18CPTMW06F-051713	L13051024-02	5/17/2013			X									
18CPTMW10DW-051713	L13051024-03	5/17/2013	X	X	X				X					
18CPTMW08DW-051713	L13051024-04	5/17/2013	X	X					X					
18CPTMW08DWF-051713	L13051024-05	5/17/2013			X									
Trip blank TB01	L13051024-06	5/17/2013	X											
18CPTMW01SW-051613	L13051032-01	5/16/2013	X	X	X				X					
18CPTMW01DW-051613	L13051032-02	5/16/2013	X	X					X					
18CPTMW01DWF-051613	L13051032-03	5/16/2013			X									
Trip blank	L13051032-04	5/16/2013	X											
MW8-051613	L13051033-01	5/16/2013	X	X	X				X	X	X	X	X	X
Trip blank	L13051033-02	5/16/2013	X											
18CPTMW12SW-060413	L13060259-01	6/4/2013	X	X					X					
18CPTMW12SWF-060413	L13060259-02	6/4/2013			X									
18CPTMW12DW-060413	L13060259-03	6/4/2013	X	X	X				X					
Trip blank	L13060259-04	6/4/2013	X											
18CPTMW16-060413	L13060284-01	6/4/2013	X	X					X					
18CPTMW16F-060413	L13060284-02	6/4/2013			X									
18CPT-MW08SW-060413	L13060284-03	6/4/2013	X	X	X				X					

ClientSampleID	LabSampleID	Collected	SW8260	SW6850	SW6010	SW9034	SW6010/ 6020	SW7196A	SW8270	RSK 175	SW9056	SM2320	Fe	E415.1
18CPTMW10SW-060413	L13060284-04	6/4/2013	X	X					X					
18CPTMW10SWF-060413	L13060284-05	6/4/2013			X									
Trip blank	L13060284-06	6/4/2013	X											

Table 3: Qualified Analytical Data

ClientSampleID	LabSampleID	AnalyteName	DVQualOverall	Reason
18CPT01(31-32)	L13030062-03	Trichloroethene	J	LCS above control limits
		Vinyl chloride	J	LCS above control limits
18CPT-01, 69.5-70.5	L13030210-01	Dichlorodifluoromethane	UJ	LCS below control limits
18CPT10(17-18)	L13030214-01	Dichlorodifluoromethane	UJ	CCV below control limits
18CPT10(19-20)	L13030214-02	Dichlorodifluoromethane	UJ	CCV below control limits
		cis-1,2-dichloroethene	J	Field precision outside limits
18CPT10(27-27.5)	L13030214-03	Dichlorodifluoromethane	UJ	CCV below control limits
18CPT10(28-29)	L13030214-04	Dichlorodifluoromethane	UJ	CCV below control limits
Dup-01	L13030214-05	Dichlorodifluoromethane	UJ	CCV below control limits
		cis-1,2-dichloroethene	J	Field precision outside limits
18CPT12(18-19)	L13030214-07	Dichlorodifluoromethane	UJ	CCV below control limits
18CPT12(22-23)	L13030214-08	Dichlorodifluoromethane	UJ	CCV below control limits
18CPT-03-21-22	L13030390-02	Methylene chloride	U	Method blank contamination
18CPT-03 34-35	L13030390-03	2-butanone	UJ	CCV below control limits
		4-methyl-2-pentanone	UJ	CCV below control limits
18CPT-03 43-44	L13030390-04	2-butanone	UJ	CCV below control limits
		4-methyl-2-pentanone	UJ	CCV below control limits
18CPT07(29-30)-120313	L13030494-03	2-butanone	UJ	CCV below control limits
		4-methyl-2-pentanone	UJ	CCV below control limits
18CPT07(37-38)-120313	L13030494-06	2-butanone	UJ	CCV below control limits
		4-methyl-2-pentanone	UJ	CCV below control limits
18CPT07(37-38)-120313D	L13030494-07	2-butanone	UJ	CCV below control limits
		4-methyl-2-pentanone	UJ	CCV below control limits
18CPT-10- 63-64	L13030711-01	Chloromethane	UJ	CCV below control limits
18CPT15, 14-18 180313	L13030711-02	Chloromethane	UJ	CCV below control limits
18CPT-15, 25-29 180313	L13030711-03	Chloromethane	UJ	CCV below control limits
18CPT-15, 38-42 180313	L13030711-04	Chloromethane	UJ	CCV below control limits

ClientSampleID	LabSampleID	AnalyteName	DVQualOverall	Reason
18CPT21(48-49)280313	L13031176-04	Methylene chloride	J	Field precision outside criteria
		Trichloroethene	J	Field precision outside criteria
		Perchlorate	J	Field precision outside criteria
18CPT21(48-49)280313dup	L13031176-05	Methylene chloride	J	Field precision outside criteria
		Trichloroethene	J	Field precision outside criteria
		Perchlorate	J	Field precision outside criteria
18CPT20(7-8)-290313	L13040030-01	Methylene chloride	U	Method blank contamination
18CPT09(6-7)010413	L13040090-06	Chloroform	U	Equipment blank contamination
MW3-050713	L1305065-05	Chloroform	U	Equipment blank contamination
MW22-050813	L13050432-01	Calcium	J	CCV below control limits
MW18-050813	L13050490-01	Hexachlorobenzene	UJ	LCS below control limits
18WW0-050913	L13050490-05	Manganese	J	MS/MSD outside control limits
MW9-050913	L13050546-01	Hexachlorobenzene	UJ	LCS RPD outside criteria
MW9-050913-FD	L13050546-02	Hexachlorobenzene	UJ	LCS RPD outside criteria
MW2-050913	L13050546-03	Hexachlorobenzene	UJ	LCS RPD outside criteria
18CPTMW19-051313	L13050696-01	Hexachlorobenzene	UJ	Surrogate below control limits
123-051113	L13050697-01	Hexachlorobenzene	UJ	Surrogate below control limits
C02-050913	L13050698-01	Acetone	UJ	CCV below control limits
		2-Butanone	UJ	CCV below control limits
		Chloromethane	UJ	CCV below control limits
		2-hexanone	UJ	CCV below control limits
MW17-051013	L13050698-03	Acetone	UJ	CCV below control limits
		2-Butanone	UJ	CCV below control limits
		Chloromethane	UJ	CCV below control limits
		2-hexanone	UJ	CCV below control limits
MW16-051013	L13050698-04	Acetone	UJ	CCV below control limits
		2-Butanone	UJ	CCV below control limits

ClientSampleID	LabSampleID	AnalyteName	DVQualOverall	Reason
		Chloromethane	UJ	CCV below control limits
		2-hexanone	UJ	CCV below control limits
129-051013	L13050698-06	Acetone	UJ	CCV below control limits
		2-Butanone	UJ	CCV below control limits
		Chloromethane	UJ	CCV below control limits
		2-hexanone	UJ	CCV below control limits
MW17-051013	L13050698-03	Hexachlorobenzene	UJ	LCS RPD outside criteria
MW16-051013	L13050698-04	Hexachlorobenzene	UJ	LCS RPD outside criteria
18WW22-051313	L13050699-01	Acetone	UJ	LCS RPD outside criteria
18CPTMW14-051313	L13050699-03	Hexachlorobenzene	UJ	LCS RPD outside criteria
18WW22-051313	L13050699-01	Aluminum	U	Method blank contamination
MW5-051313	L13050700-01	Acetone	UJ	LCS RPD outside criteria
		Hexachlorobenzene	UJ	LCS RPD outside criteria
MW7-051413	L13050754-01	Hexachlorobenzene	UJ	LCS RPD outside criteria
18CPTMW23-051313	L13050770-01	1,2-dibromo-3-chloropropane	UJ	CCV below control limits
18CPTMW23-051313-FD	L13050770-02	1,2-dibromo-3-chloropropane	UJ	CCV below control limits
18CPTMW24-051313	L13050770-03	Acetone	UJ	CCV below control limits
		1,2-dibromo-3-chloropropane	UJ	CCV below control limits
18CPTMW23-051313	L13050770-01	Aluminum	J	Field duplicate outside criteria
18CPTMW23-051313-FD	L13050770-02	Hexachlorobenzene	UJ	LCS RPD outside criteria
		Aluminum	J	Field duplicate outside criteria
18CPTMW24-051313	L13050770-03	Hexachlorobenzene	UJ	LCS RPD outside criteria
18CPTMW07-081413	L13050771-01	Hexachlorobenzene	UJ	LCS RPD outside criteria
120-051113	L13050810-03	2-Butanone	UJ	CCV below control limits
		2-Hexanone	UJ	CCV below control limits

ClientSampleID	LabSampleID	AnalyteName	DVQualOverall	Reason
		4-Methyl-2-pentanone	UJ	CCV below control limits
120-051113-FD	L13050810-05	2-Butanone	UJ	CCV below control limits
		2-Hexanone	UJ	CCV below control limits
		4-Methyl-2-pentanone	UJ	CCV below control limits
109-051013	L13050810-01	Hexachlorobenzene	UJ	LCS RPD outside criteria
109-051013-F	L13050810-02	Mercury	U	Method blank contamination
120-051113-F	L13050810-04	Mercury	U	Method blank contamination
120-051113-FD	L13050810-06	Mercury	U	Method blank contamination
18CPTMW15-051413	L13050831-01	2-Butanone	UJ	CCV below control limits
		1,3-Dichloropropane	UJ	CCV below control limits
		2-Hexanone	UJ	CCV below control limits
		4-Methyl-2-pentanone	UJ	CCV below control limits
		Mercury	U	Method blank contamination
18CPTMW22-051513	L13050831-02	Acetone	UJ	CCV below control limits
		Bromomform	UJ	CCV below control limits
		Bromomethane	UJ	CCV below control limits
		2-Butanone	UJ	CCV below control limits
		1,2-Dibromo-3-chloropropane	UJ	CCV below control limits
		4-Methyl-2-pentanone	UJ	CCV below control limits
		1,2,3-Trichloropropane	UJ	CCV below control limits
		Trichloroethene	J	MS/MSD below control limits
		Barium	J	MS above control limits
		Mercury	U	Method blank contamination
18WW08-051513	L13050864-01	Acetone	UJ	CCV below control limits
		1,2-Dibromo-3-chloropropane	UJ	CCV below control limits
		Methane	U	Method blank contamination

ClientSampleID	LabSampleID	AnalyteName	DVQualOverall	Reason
		Mercury	U	Method blank contamination
18CPTMW18-051513	L13050872-01	Acetone	UJ	CCV below control limits
		2-Butanone	UJ	CCV below control limits
		1,3-Dichloropropane	UJ	CCV below control limits
		2-Hexanone	UJ	CCV below control limits
		4-Methyl-2-pentanone	UJ	CCV below control limits
		Methane	U	Method blank contamination
18CPTMW04SW-051613	L13051023-01	Acetone	UJ	CCV below control limits
		Bromomethane	UJ	CCV below control limits
		2-butanone	UJ	CCV below control limits
		Chloromethane	UJ	CCV below control limits
		1,2-dibromo-3-chloropropane	UJ	CCV below control limits
		2-hexanone	UJ	CCV below control limits
		4-methyl-2-pentanone	UJ	CCV below control limits
18CPTMW04SW-051613-FD	L13051023-03	Acetone	UJ	CCV below control limits
		Bromomethane	UJ	CCV below control limits
		2-butanone	UJ	CCV below control limits
		Chloromethane	UJ	CCV below control limits
		1,2-dibromo-3-chloropropane	UJ	CCV below control limits
		2-hexanone	UJ	CCV below control limits
		4-methyl-2-pentanone	UJ	CCV below control limits
18CPTMW04-051613	L13051023-05	Acetone	UJ	CCV below control limits
		Bromomethane	UJ	CCV below control limits
		2-butanone	UJ	CCV below control limits
		Chloromethane	UJ	CCV below control limits
		1,2-dibromo-3-	UJ	CCV below control limits

ClientSampleID	LabSampleID	AnalyteName	DVQualOverall	Reason
		chloropropane		
		2-hexanone	UJ	CCV below control limits
		4-methyl-2-pentanone	UJ	CCV below control limits
		Chromium	U	Method blank contamination
		Barium	J	LL CCV above control limits
18CPTMW04SWF-051613	L13051023-02	Antimony	U	CCB contamination
		Barium	J	LL CCV above control limits
18CPTMW04SWF-051613-FD	L13051023-04	Antimony	U	CCB contamination
		Barium	J	LL CCV above control limits
18CPTMW06-051713	L13051024-01	2-butanone	UJ	CCV below control limits
		2-hexanone	UJ	CCV below control limits
		4-methyl-2-pentanone	UJ	CCV below control limits
18CPTMW06F-051713	L13051024-02	Antimony	U	ICB contamination
18CPTMW10DW-051713	L13051024-03	Acetone	UJ	CCV below control limits
		Bromomethane	UJ	CCV below control limits
		2-Butanone	UJ	CCV below control limits
		1,3-Dichloropropane	UJ	CCV below control limits
		2-Hexanone	UJ	CCV below control limits
		4-Methyl-2-pentanone	UJ	CCV below control limits
18CPTMW08DW-051713	L13051024-04	Acetone	UJ	CCV below control limits
		Bromomethane	UJ	CCV below control limits
		2-Butanone	UJ	CCV below control limits
		1,3-Dichloropropane	UJ	CCV below control limits
		2-Hexanone	UJ	CCV below control limits
		4-Methyl-2-pentanone	UJ	CCV below control limits
18CPRMW08DWF-051713	L13051024-05	Antimony	U	ICB contamination
18CPTMW01SW-051613	L13051032-01	Acetone	UJ	CCV below control limits

ClientSampleID	LabSampleID	AnalyteName	DVQualOverall	Reason
		2-Butanone	UJ	CCV below control limits
		1,2-Dichloropropane	UJ	CCV below control limits
		4-Methyl-2-pentanone	UJ	CCV below control limits
		SW8260 Detects	J	Surrogates above control limits
18CPTMW01DW-051613	L13051032-02	Bromomethane	UJ	CCV below control limits
		2-Butanone	UJ	CCV below control limits
		1,3-Dichloropropane	UJ	CCV below control limits
		2-Hexanone	UJ	CCV below control limits
		4-Methyl-2-pentanone	UJ	CCV below control limits
18CPTMW01DWF-051613	L13051032-03	Antimony	U	ICB contamination
MW8-051613	L13051033-01	Acetone	UJ	CCV below control limits
		Bromomethane	UJ	CCV below control limits
		2-Hexanone	UJ	CCV below control limits
		4-Methyl-2-pentanone	UJ	CCV below control limits
		Methane	U	Method blank contamination
		Barium	J	LLC CCV above control limits
18CPTMW12SWF-060413	L13060259-02	Aluminum	U	Method blank contamination
		Calcium	J	LLC CCV above control limits
		Sodium	J	LLC CCV above control limits
18CPTMW12DW-060413	L13060259-03	Aluminum	U	Method blank contamination
		Calcium	J	LLC CCV above control limits
		Sodium	J	LLC CCV above control limits

Table 4: Field Precision Data

Field Identification	Analyte	Sample Result	Duplicate Result	% RPD	Qualifier
18CPT10(19-20)	cis-1,2-dichloroethene	32.4 ug/kg	15.8 ug/kg	69%	J
18CPT(48-49)280313	Methylene chloride	2910000 ug/kg	6410000 ug/kg	75%	J
	Trichloroethene	3870000 ug/kg	15300000 ug/kg	119%	J
18CPT21(48-49)	Perchlorate	2100 ug/kg	26000 ug/kg	170%	J
18CPTMW23-051313	Aluminum	0.445mg/L	0.239 mg/L	60%	J

Laboratory data packages will be included in a separate file.

APPENDIX E: Soil Saturation Determination

Appendix E
Soil Saturation Estimates for Trichloroethylene and Methylene Chloride

TRRP Theoretical Soil Saturation Limit Equation for Liquids (i.e., the concentration at which non-aqueous phase liquid (NAPL) begins to form):

$$C_{sat}\left(\frac{\mu g}{kg\ soil}\right) = \frac{S}{\rho_b}\left[\theta_{ws} + k_d\,\rho_b + \theta_{as}\,H'\right]$$

Where:

C_{sat} = soil saturation limit of CoC (ug/kg soil)

S = aqueous solubility limit of chemicals of concern (ug/L-water)

ρ_b = soil bulk density (kg soil/L water)

θ_{ws} = volumetric water content of vadose zone soil = total porosity (θ_T) when saturated (dimensionless)

θ_{as} = volumetric air content of vadose zone soil = 0 when saturated (dimensionless)

H' = Henry's law constant (dimensionless)

k_d = soil-water partition coefficient (L-water/kg-soil) = $f_{oc}\ k_{oc}$

f_{oc} = fraction of organic carbon in soil (kg carbon/kg soil)

k_{oc} = soil organic carbon-water partition coefficient (L-water/kg-carbon)

In saturated soil: $C_{sat}\left(\frac{\mu g}{kg\ soil}\right) = \frac{S}{\rho_b}\left[\theta_T + k_d\,\rho_b\right]$

Based on geotechnical data collected at the site, information about organic carbon content, soil bulk density, and soil porosity along with pure compounds solubility limits were used to estimate soil saturation concentrations for coarse-grained and fine-grained soils. Table 1 below provides a summary of the geotechnical data collected from the site and the parameters used in the saturation calculations. For bulk density, a conversion factor of 62.4 was used to change the units from lbf/ft^3 to kg/L. The fraction of organic carbon was changed from mg/L to % by dividing the mg/L concentration by 1,000,000. The calculations were completed for TCE and MC. Pure compound solubility for TCE is 1,100,000 ug/L and for MC = 1,540,000. Organic carbon partition coefficient for TCE is 93.33 L/kg and for MC = 11.75 L/kg. Solubility and organic carbon partition coefficients were obtained from the Texas Commission on Environmental Quality (TCEQ) Texas Risk Reduction Program (TRRP) Tables of June 2012.

Table 1: Site-Specific Parameters used in Soil Saturation Equation

Well ID	Sampled Interval From	Sampled Interval To	Soil Type	Bulk Density (ρ_b) lbf/ft^3	Porosity (θ_T)	f_{oc} mg/L
18CPTMW01	16	17	Clayey Silt	111.7	47.9%	1,540
	37	37.5	Sandy Silt	132	35.0%	1,620
	40.5	41	Silty Clay	118	44.1%	2,840
18CPTMW08	12.5	13	Silty Sand	119.8	37.3%	464
	22	23	Silty Sand	127.4	35.3%	2,190
	32	32.5	Clayey Silt	131.6	32.9%	1,940
18CPTMW10	16	17	Silty Clay	111.7	47.9%	1,480
	18	19	Clayey Silt	124.4	40.3%	813
18CPTMW23	25	26	Sand	119.1	40.5%	2,960
Fine-grained Soil Average				121.6	41.4%	1,706
Coarse-grained Soil Average				122.1	37.7%	1,871

lbf/f^3 – pound force per cubic feet

mg/L – milligram per liter

Table 2: Soil Saturation Calculations

CoC	TCE		MC	
Parameter	**fine-grained soil**	**coarse-grained soil**	**fine-grained soil**	**coarse-grained soil**
Solubility (ug/L)	1,100,000	1,100,000	15,400,000	15,400,000
Bulk Density (lbf/ft^3)	1.95	1.96	1.95	1.96
Porosity	0.414	0.377	0.414	0.377
Organic carbon fraction	0.001761	0.001871	0.001761	0.001871
OC-W Partition Coefficient (L/kg)	93.33	93.33	11.75	11.75
Soil-Water Partition Coefficient (L/kg)	0.1643	0.17461	0.0207	0.02198
Soil Saturation Limit (ug/kg soil)	**414,473**	**404,008**	**3,590,315**	**3,305,620**

TCE – trichloroethylene MC – methylene chloride

APPENDIX F: Geotechnical Testing Report

ETTL Engineers & Consultants Inc.

GEOTECHNICAL • MATERIALS • ENVIRONMENTAL

July 15, 2013

Gretchen McDonnell
AECOM
13528 Keswick Lane
Yukon, Oklahoma 73099

SUBJECT: LHAAP – 18/24 (60274185)
Karnack, Texas
Geotechnical Laboratory Testing, Rev. 01
ETTL Job No. G3968-13

Dear Miss. McDonnell

Attached to this letter, please find the requested laboratory test for the above referenced project site. On June 6, 2013, nine samples were delivered to our Tyler, Texas location by Scott Beesinger with a chain of custody requesting the following laboratory tests: 3-permeability (ASTM D 5084), 9-Hydrometer Sieve Analysis (ASTM D 422), 9-Specific Gravity (ASTM D 854) and 9-Total Organic Carbon (SM20-5310 B/C). The calculated Porosity of each sample was measured in conjunction with (ASTM D 7263 & D 5084). In accordance with your request, no engineering analysis of the data was performed.

If you have any questions concerning the laboratory test results, please contact us. Thank you for the opportunity to be of service.

Sincerely,
ETTL Engineers & Consultants Inc.

Owen Sanderson

Owen B. Sanderson, E.I.T.
Project Manager

C. Brandon Quinn

C. Brandon Quinn, P.E., P.G.
Vice President
Manager of Engineering Services

Attachment (1): Laboratory Test Results

Home Office:
1717 East Erwin Street
Tyler, Texas 75702-6398
Office: (903) 595-4421
Fax: (903) 595-6113

Texarkana:
210 Beech Street
Texarkana, Arkansas 71854
Office: (870) 772-0013
Fax: (870) 216-2413

Longview:
707 West Cotton Street
Longview, Texas 75604-5505
Office: (903) 758-0402
Fax: (903) 758-8245

SOCIETY MEMBERSHIPS: A.C.E.C. T.C.E.C. A.S.T.M. T.C.E.L. A.S.C.E. T.S.P.E. A.I.C.H.E. N.S.P.E. A.I.C.E. A.C.S. A.C.I. A.G.C.

ETTL Engineers & Consultants Inc.

GEOTECHNICAL ✶ MATERIALS ✶ ENVIRONMENTAL ✶ DRILLING ✶ LANDFILLS

HYDROMETER AND MECHANICAL ANALYSIS OF SOIL BINDER, ASTM D422

PROJECT:	LHAAP - 18/24 (60274185)	**MATERIAL ORIGIN:**	Karnack, Texas
CLIENT:	AECOM	**DATE SAMPLED:**	02/27/13
CONTRACTOR:	not given	**SAMPLED BY:**	Client
ETTL JOB No. :	G 3968-13	**SAMPLE INFO. PROVIDED BY:**	Client
LOCATION/BORING:	18CPTMW-01DW	**TECHNICIAN:**	Owen Sanderson
SAMPLE No:	**DEPTH (ft):** 16'-17'	**START DATE:**	06/06/13
DESCRIPTION:	Yellowish Brown & Light Gray Lean Clay with sand (visual CL)	**FINISH DATE:**	06/09/13

Starting Masses and Sample Preparation								
Shape of Particles:	Angular	**D 10 (mm)=**	N/A	**Sieve No.**	**Mass Retained (g)**	**%Retained**	**Grain Dia. (mm)**	**%Passing**
Hardness of Particles:	Weathered	**D 15 (mm)=**	N/A	**Mechanical Sieve Analysis of Material Retaining on No. 10**				
Dispersion Device:	Device A	**D 30 (mm)=**	0.0045	1-1/2"	0.00	0.0	50.0	100.0
Dispersion Time:	2 minutes	**D 50 (mm)=**	0.0270	1"	0.00	0.0	25.0	100.0
		D 60 (mm)=	0.0389	3/4"	0.00	0.0	19.0	100.0
Dispersion Agent:	125 mL of a 4% solution of Sodium Hexametaphosphate	**D 85 (mm)=**	0.076	3/8"	0.00	0.0	9.50	100.0
		Cu =	N/A	No 4	0.00	0.0	4.75	100.0
Hydrometer Type:	152H	**Cc =**	N/A	No 10	0.00	0.0	2.00	100.0
Starting Mass of Air Dry (whole) sample (g):	318.13	**Hydroscopic M.C. of Hydrometer**		**Mechanical Sieve Analysis of Material Retaining on No. 200**				
Starting Mass of Oven Dry (whole) sample (g):	314.76			40	0.01	0.0	0.425	100.0
Mass of Air Dry (hydro) Sample (g):	50.00	Tare Mass (g):	29.93	60	0.02	0.0	0.250	100.0
Mass of Oven Dry (hydro) Sample (g):	49.47	Tare + Wet Mass (g):	40.32	100	0.46	0.9	0.150	99.1
Percent Retained on No. 10 Sieve:	0.00	Tare + Dry Mass (g):	40.21	140	2.98	6.0	0.106	94.0
Specific Gravity:	2.730	M.C.%	1.07%	200	7.60	15.4	0.075	84.6

Hydrometer Analysis of Material Passing No. 10 Sieve

Temperature Deg. (C)	Hydrometer Correction	Hydrometer Reading	Corrected Reading	(L)-Hydrometer Factor	(K)-Dia. Factor	(a)-SP.GR. Factor	Time (min)	Grain Dia. (mm)	% Soil Passing
22.5	4.9	41.0	36.1	10.4	0.01286	0.99	0.5	0.0587	72.3
22.5	4.9	36.5	31.6	11.2	0.01286	0.99	1	0.0430	63.3
22.5	4.9	31.5	26.6	12.0	0.01286	0.99	2	0.0315	53.3
22.5	4.9	27.0	22.1	12.7	0.01286	0.99	5	0.0205	44.3
22.5	4.9	24.0	19.1	13.2	0.01286	0.99	15	0.0121	38.3
22.5	4.9	22.5	17.6	13.5	0.01286	0.99	30	0.0086	35.3
22.0	5.1	21.5	16.4	13.7	0.01301	0.99	60	0.0062	32.9
22.0	5.1	20.0	14.9	14.0	0.01301	0.99	120	0.0044	29.9
22.0	5.1	19.0	13.9	14.2	0.01301	0.99	240	0.0032	27.9
22.5	4.9	17.0	12.1	14.3	0.01286	0.99	1440	0.0013	24.3

Measured Specific Gravity of Material Passing No. 10 Sieve, ASTM D 854 Method B

Air Dry M_S (grams)	Bottle #	T_t (deg. C)	M_P (grams)	V_P (mL)	$\rho_{w,t}$ (g/mL)	Oven Dry M_S (grams)	$M_{pw,t}$ (grams)	$M_{pws,t}$ (grams)	SG_t
100.00	7	25.50	179.91	499.17	0.9969	98.94	677.54	740.24	**2.730**

Per ASTM		
% Gravel =	0.0	**Gravel** > 4.75 (mm)
% Sand =	15.4	4.75 (mm) < **SAND** > .075 (mm)
% Silt =	59.0	.075 (mm) < **SILT** > .002 (mm)
%Clay =	25.6	**CLAY** < .002 (mm)

Atterberg Limits		
L.L.	P.L.	P.I.
N/T	N/T	N/T

Notes:

Respectfully Submitted

C. Brandon Quinn

C. Brandon Quinn, P.E., P.G.

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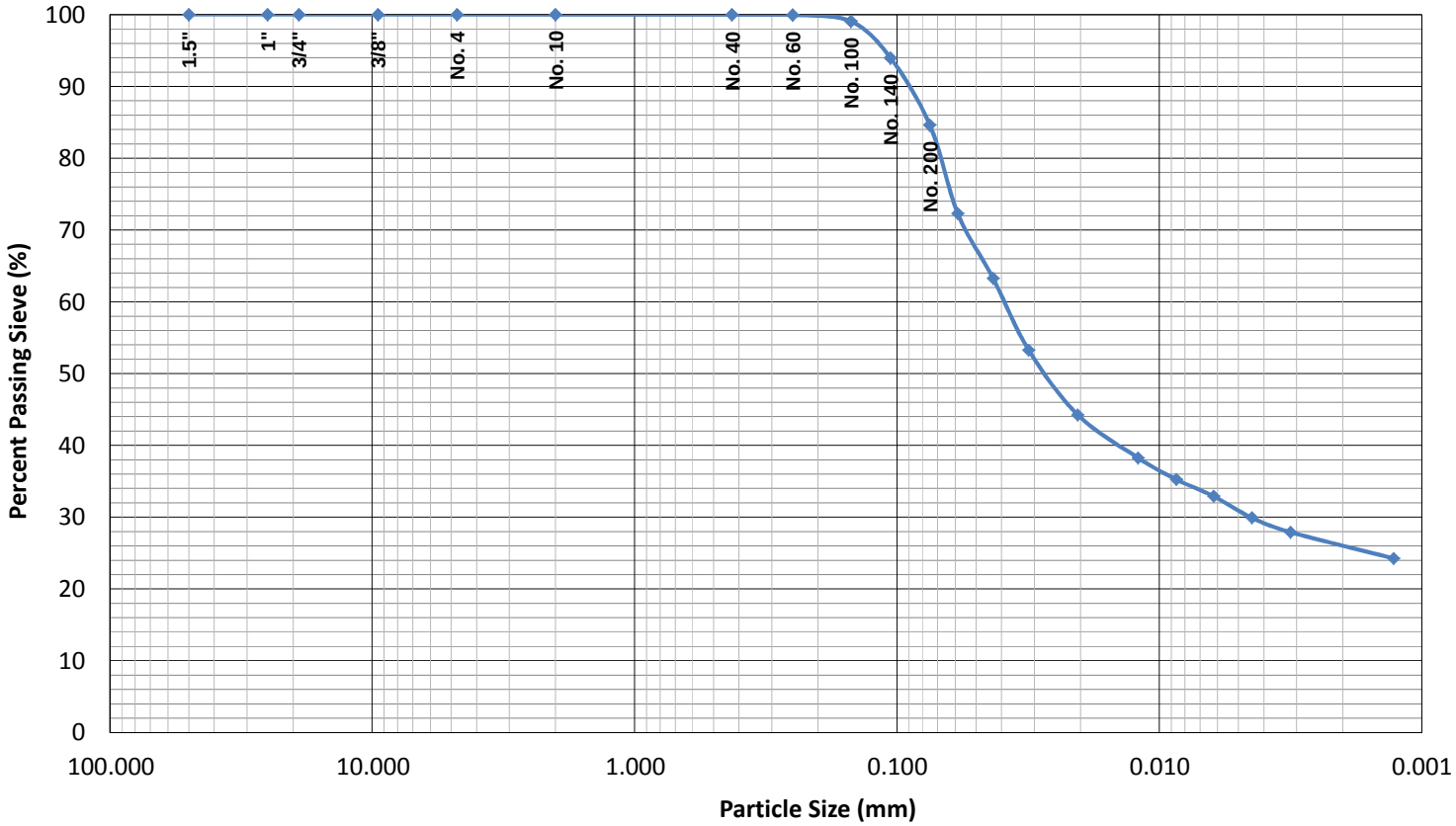
ASTM D 422, Particle Size Distribution Curve By Hydrometer



Sieve No.	Dia. (mm)	% Finer
1.5"	50.0	100.0
1"	25.0	100.0
3/4"	19.0	100.0
3/8"	9.50	100.0
No. 4	4.75	100.0
No. 10	2.00	100.0
No. 40	0.425	100.0
No. 60	0.250	100.0
No. 100	0.150	99.1
No. 140	0.106	94.0
No. 200	0.075	84.6
Hydrometer Analysis	0.0587	72.3
	0.0430	63.3
	0.0315	53.3
	0.0205	44.3
	0.0121	38.3
	0.0086	35.3
	0.0062	32.9
	0.0044	29.9
	0.0032	27.9
	0.0013	24.3

L.L.	N/T
P.L.	N/T
P.I.	N/T
% Sand	15.4
% Silt	59.0
% Clay	25.6
D_{85}	0.0760
D_{60}	0.0389
D_{50}	0.0270
D_{30}	0.0045
D_{15}	N/A
D_{10}	N/A
C_u	N/A
C_c	N/A

PROJECT NAME:	LHAAP - 18/24 (60274185)	Location	Sample No.	Depth (ft)	Description and Classification	Specific Gravity	Technician
Client:	AECOM				Yellowish Brown & Light Gray Lean Clay with sand (visual CL)		Owen Sanderson
ETTL Inc. Job #	G 3968-13	18CPTMW-01DW		16'-17'		2.730	Date: 06/09/13

ETTL Engineers & Consultants Inc.

GEOTECHNICAL ✶ MATERIALS ✶ ENVIRONMENTAL ✶ DRILLING ✶ LANDFILLS

HYDRAULIC CONDUCTIVITY DETERMINATION
FLEXIBLE WALL PERMEAMETER - CONSTANT VOLUME
(Mercury Permometer Test) ASTM D 5084

Project : LHAAP - 18/24 (60274185)
Test Date: 6/6/2013 Panel Number : P-4
ETTL Job No.: G 3968-12

Boring No.:	18CPTMW-01DW	a_p = 0.0314	cm^2	Permometer Data	Equilibrium	1.7	cm^3
Sample No:		a_a = 0.7671	cm^2	Set Mercury to Pipet Rp at beginning	Pipet Rp	6.7	cm^3
Depth (ft):	16'-17'	M_1 = 0.0302	C = 0.00043		Annulus Ra	1.5	cm^3
Other Location:		M_2 = 1.0410	T = 0.20151				

Material Description : Yellowish Brown & Light Gray Lean Clay with sand, (CL)

SAMPLE DATA

Wet Wt: of Sample :			193.95	g
Diameter :	1.990	in	5.055	cm^2
Length :	1.989	in	5.053	cm
Area:	3.111	in^2	20.07	cm^2
Volume :	6.189	in^3	101.4	cm^3
Unit Wt.(wet):	**119.3**	pcf	**1.912**	g/cm^3
Unit Wt.(dry):	**98.4**	pcf	**1.576**	g/cm^3

Moisture Content

Before Test		After Test	
Tare No.:	V	Tare No.:	T
Wet Wt.+tare:	275.40	Wet Wt.+tare	263.29
Dry Wt.+tare:	239.26	Dry Wt.+tare:	222.11
Tare Wt:	69.61	Tare Wt:	65.24
Dry Wt.:	169.65	Dry Wt.:	156.87
Water Wt.:	36.14	Water Wt.:	41.18
% moist.:	**21.3**	% moist.:	**26.3**

Specific Gravity: **2.705**
Mearused B-value: **100%**
Void ratio (e) = **0.717**
Porosity (n)= **0.418**

TEST READINGS

Z_1(Mercury Height Difference @ t_1): 2.4 cm Hydraulic Gradient = 5.90

Date	elapsed t (seconds)	Z (pipet @ t)	ΔZp (cm)	temp (deg C)	α (temp corr)	k (cm/sec)	k (ft./day)	Reset = *
6/10/2013	6257	3.7	0.374472	25.5	0.879	1.52E-08	4.32E-05	
6/10/2013	8345	3.6	0.474472	25.5	0.879	1.49E-08	4.21E-05	
6/10/2013	10201	3.5	0.574472	25.5	0.879	1.51E-08	4.29E-05	
6/10/2013	12672	3.4	0.674472	25.5	0.879	1.47E-08	4.17E-05	

SUMMARY

ka =	1.50E-08	cm/sec		
ki			Vm	
k1 =	1.52E-08	cm/sec	1.7	%
k2 =	1.49E-08	cm/sec	0.8	%
k3 =	1.51E-08	cm/sec	0.9	%
k4 =	1.47E-08	cm/sec	1.8	%

Acceptance criteria = 25 %

$$Vm = \frac{|ka - ki|}{ka} \times 100$$

Hydraulic conductivity	k =	**1.50E-08**	cm/sec	**4.25E-05**	ft/day
Void Ratio	e =	**0.717**			
Porosity	n =	**0.418**			
Bulk Density	γ =	**1.912**	g/cm^3	**119.3**	pcf
Water Content	W =	**0.336**	cm^3/cm^3	(at 20 deg C)	
Intrinsic Permeability	k_{int} =	**1.54E-13**	cm^2	(at 20 deg C)	

Liquid Limit (LL):	N/T	
Plastic Limit (PL):	N/T	
Plasticity Index (PI):	**N/T**	
Passing No.200 Sieve:	84.5	%
Retained No.40 Sieve:	0.0	%
Retained No.4 Sieve:	0.0	%

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HYDROMETER AND MECHANICAL ANALYSIS OF SOIL BINDER, ASTM D422

PROJECT:	LHAAP - 18/24 (60274185)	**MATERIAL ORIGIN:**	Karnack, Texas
CLIENT:	AECOM	**DATE SAMPLED:**	02/27/13
CONTRACTOR:	not given	**SAMPLED BY:**	Client
ETTL JOB No. :	G 3968-13	**SAMPLE INFO. PROVIDED BY:**	Client
LOCATION/BORING:	18CPTMW-01DW	**TECHNICIAN:**	Owen Sanderson
SAMPLE No:	**DEPTH (ft):** 37'-37.5'	**START DATE:**	06/06/13
DESCRIPTION:	Yellowish Brown Silt with sand, (visual ML)	**FINISH DATE:**	06/09/13

Starting Masses and Sample Preparation			
Shape of Particles:	Rounded	**D 10 (mm)=**	0.0018
Hardness of Particles:	Hard	**D 15 (mm)=**	0.0075
Dispersion Device:	Device A	**D 30 (mm)=**	0.0222
Dispersion Time:	2 minutes	**D 50 (mm)=**	0.0462
Dispersion Agent:	125 mL of a 4% solution of Sodium Hexametaphosphate	**D 60 (mm)=**	0.0595
		D 85 (mm)=	0.096
		Cu =	32
Hydrometer Type:	152H	**Cc =**	4
Starting Mass of Air Dry (whole) sample (g):	333.70	**Hydroscopic M.C. of Hydrometer**	
Starting Mass of Oven Dry (whole) sample (g):	331.91		
Mass of Air Dry (hydro) Sample (g):	50.00	Tare Mass (g):	30.07
Mass of Oven Dry (hydro) Sample (g):	49.73	Tare + Wet Mass (g):	41.24
Percent Retained on No. 10 Sieve:	0.00	Tare + Dry Mass (g):	41.18
Specific Gravity:	2.695	M.C.%	0.54%

Sieve No.	Mass Retained (g)	%Retained	Grain Dia. (mm)	%Passing
Mechanical Sieve Analysis of Material Retaining on No. 10				
1-1/2"	0.00	0.0	50.0	100.0
1"	0.00	0.0	25.0	100.0
3/4"	0.00	0.0	19.0	100.0
3/8"	0.00	0.0	9.50	100.0
No 4	0.00	0.0	4.75	100.0
No 10	0.00	0.0	2.00	100.0
Mechanical Sieve Analysis of Material Retaining on No. 200				
40	0.00	0.0	0.425	100.0
60	0.09	0.2	0.250	99.8
100	1.40	2.8	0.150	97.2
140	5.75	11.6	0.106	88.4
200	11.60	23.3	0.075	76.7

Hydrometer Analysis of Material Passing No. 10 Sieve

Temperature Deg. (C)	Hydrometer Correction	Hydrometer Reading	Corrected Reading	(L)-Hydrometer Factor	(K)-Dia. Factor	(a)-SP.GR. Factor	Time (min)	Grain Dia. (mm)	% Soil Passing
23.5	4.5	35.0	30.5	11.4	0.01286	1.00	0.5	0.0614	61.3
23.5	4.5	29.0	24.5	12.4	0.01286	1.00	1	0.0453	49.2
23.5	4.5	25.0	20.5	13.0	0.01286	1.00	2	0.0328	41.1
23.5	4.5	19.0	14.5	14.0	0.01286	1.00	5	0.0215	29.1
23.3	4.6	15.0	10.4	14.7	0.01301	1.00	15	0.0129	20.9
23.3	4.6	13.0	8.4	15.0	0.01301	1.00	30	0.0092	16.8
23.3	4.6	11.5	6.9	15.3	0.01301	1.00	60	0.0066	13.8
23.0	4.7	10.5	5.8	15.5	0.01301	1.00	120	0.0047	11.6
22.5	4.9	10.3	5.4	15.5	0.01301	1.00	240	0.0033	10.8
21.5	5.2	10.0	4.8	15.6	0.01316	1.00	1440	0.0014	9.6

Measured Specific Gravity of Material Passing No. 10 Sieve, ASTM D 854 Method B

Air Dry M_S (grams)	Bottle #	T_t (deg. C)	M_P (grams)	V_P (mL)	$\rho_{w,t}$ (g/mL)	Oven Dry M_S (grams)	$M_{pw,t}$ (grams)	$M_{pws,t}$ (grams)	SG_t
100.00	9	23.12	189.82	499.11	0.9975	99.46	687.69	750.24	**2.695**

Per ASTM		
% Gravel =	0.0	**Gravel** > 4.75 (mm)
% Sand =	23.3	4.75 (mm) < **SAND** > .075 (mm)
% Silt =	66.7	.075 (mm) < **SILT** > .002 (mm)
%Clay =	10.0	**CLAY** < .002 (mm)

Atterberg Limits		
L.L.	P.L.	P.I.
N/T	N/T	N/T

Notes:

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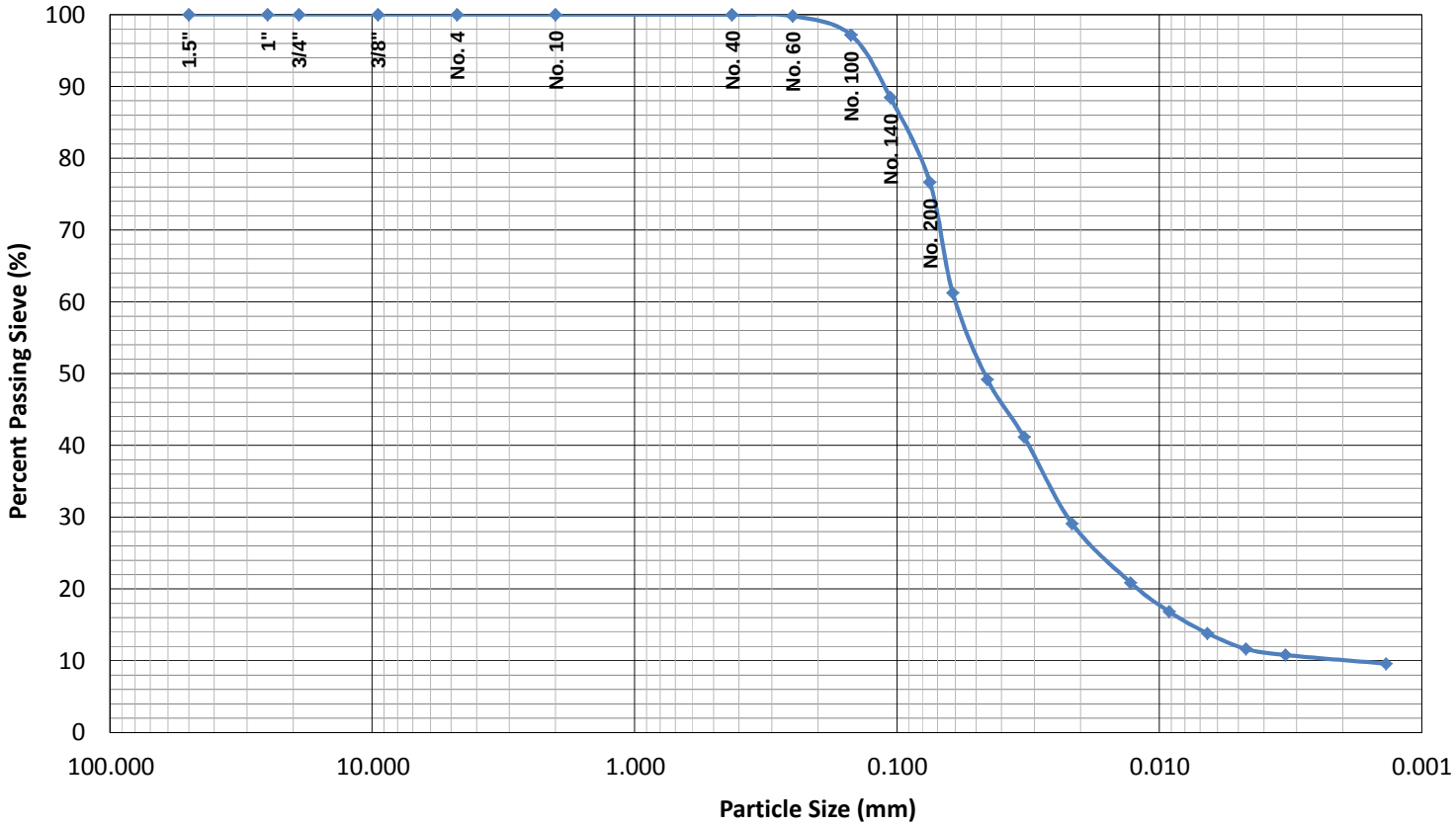
ASTM D 422, Particle Size Distribution Curve By Hydrometer



Sieve No.	Dia. (mm)	% Finer
1.5"	50.0	100.0
1"	25.0	100.0
3/4"	19.0	100.0
3/8"	9.50	100.0
No. 4	4.75	100.0
No. 10	2.00	100.0
No. 40	0.425	100.0
No. 60	0.250	99.8
No. 100	0.150	97.2
No. 140	0.106	88.4
No. 200	0.075	76.7
Hydrometer Analysis	0.0614	61.3
	0.0453	49.2
	0.0328	41.1
	0.0215	29.1
	0.0129	20.9
	0.0092	16.8
	0.0066	13.8
	0.0047	11.6
	0.0033	10.8
	0.0014	9.6

L.L.	N/T
P.L.	N/T
P.I.	N/T
% Sand	23.3
% Silt	66.7
% Clay	10.0
D_{85}	0.0958
D_{60}	0.0595
D_{50}	0.0462
D_{30}	0.0222
D_{15}	0.0075
D_{10}	0.0018
C_u	32
C_c	4

		Location	Sample No.	Depth (ft)	Description and Classification	Specific Gravity	Technician
PROJECT NAME:	LHAAP - 18/24 (60274185)						
Client:	AECOM				Yellowish Brown Silt with sand, (visual ML)		Owen Sanderson
ETTL Inc. Job #	G 3968-13	18CPTMW-01DW		37'-37.5'		2.695	Date: 06/09/13

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HYDRAULIC CONDUCTIVITY DETERMINATION
FLEXIBLE WALL PERMEAMETER - CONSTANT VOLUME
(Mercury Permometer Test) ASTM D 5084

Project : LHAAP - 18/24 (60274185)
Test Date: 6/6/2013 Panel Number : P-4
ETTL Job No.: G 3968-12

Boring No.:	18CPTMW-01DW	a_p = 0.0314	cm^2	Permometer Data	Equilibrium	1.7	cm^3
Sample No:		a_a = 0.7671	cm^2	Set Mercury to Pipet Rp at beginning	Pipet Rp	6.7	cm^3
Depth (ft):	37'-37.5'	M_1 = 0.0302	C = 0.00043		Annulus Ra	1.5	cm^3
Other Location:		M_2 = 1.0410	T = 0.20151				

Material Description : Yellowish Brown Silt with sand, (visual ML)

SAMPLE DATA

Wet Wt: of Sample :			229.62	g
Diameter :	2.027	in	5.147	cm^2
Length :	2.054	in	5.218	cm
Area:	3.225	in^2	20.81	cm^2
Volume :	6.626	in^3	108.6	cm^3
Unit Wt.(wet):	**132.0**	pcf	**2.11**	g/cm^3
Unit Wt.(dry):	**109.4**	pcf	**1.75**	g/cm^3

Moisture Content

Before Test		After Test	
Tare No.:	U	Tare No.:	G
Wet Wt.+tare:	320.72	Wet Wt.+tare	293.88
Dry Wt.+tare:	277.64	Dry Wt.+tare:	258.94
Tare Wt:	69.25	Tare Wt:	71.22
Dry Wt.:	208.39	Dry Wt.:	187.72
Water Wt.:	43.08	Water Wt.:	34.94
% moist.:	**20.7**	% moist.:	**18.6**

Specific Gravity: **2.695**
Measured B-value: **100%**
Void ratio (e) = **0.539**
Porosity (n)= **0.350**

TEST READINGS

Z_1(Mercury Height Difference @ t_1): 2.5 cm Hydraulic Gradient = 5.98

Date	elapsed t (seconds)	Z (pipet @ t)	ΔZp (cm)	temp (deg C)	α (temp corr)	k (cm/sec)	k (ft./day)	Reset = *
6/10/2013	403	3.7	0.377857	25.5	0.879	2.27E-07	6.43E-04	
6/10/2013	562	3.6	0.477857	25.5	0.879	2.11E-07	5.98E-04	
6/10/2013	786	3.5	0.577857	25.5	0.879	1.87E-07	5.30E-04	
6/10/2013	1007	3.4	0.677857	25.5	0.879	1.76E-07	4.99E-04	

SUMMARY

ka =	2.00E-07	cm/sec		Acceptance criteria =	25 %
ki			Vm		
k1 =	2.27E-07	cm/sec	13.3	%	Vm = |ka-ki| / ka x 100
k2 =	2.11E-07	cm/sec	5.3	%	
k3 =	1.87E-07	cm/sec	6.5	%	
k4 =	1.76E-07	cm/sec	12.1	%	

Hydraulic conductivity	k =	**2.00E-07**	cm/sec	**5.67E-04**	ft/day
Void Ratio	e =	**0.539**			
Porosity	n =	**0.350**			
Bulk Density	γ =	**2.115**	g/cm^3	**132.0**	pcf
Water Content	W =	**0.363**	cm^3/cm^3	(at 20 deg C)	
Intrinsic Permeability	k_{int} =	**2.05E-12**	cm^2	(at 20 deg C)	

Liquid Limit (LL):	N/T	
Plastic Limit (PL):	N/T	
Plasticity Index (PI):	**N/T**	
Passing No.200 Sieve:	76.7	%
Retained No.40 Sieve:	0.0	%
Retained No.4 Sieve:	0.0	%

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HYDROMETER AND MECHANICAL ANALYSIS OF SOIL BINDER, ASTM D422

PROJECT:	LHAAP - 18/24 (60274185)	**MATERIAL ORIGIN:**	Karnack, Texas
CLIENT:	AECOM	**DATE SAMPLED:**	02/27/13
CONTRACTOR:	not given	**SAMPLED BY:**	Client
ETTL JOB No. :	G 3968-13	**SAMPLE INFO. PROVIDED BY:**	Client
LOCATION/BORING:	18CPTMW-01DW	**TECHNICIAN:**	Owen Sanderson
SAMPLE No:	**DEPTH (ft):** 40.5'-41'	**START DATE:**	06/06/13
DESCRIPTION:	Gray Lean Clay, (visual CL)	**FINISH DATE:**	06/09/13

Starting Masses and Sample Preparation			
Shape of Particles:	Rounded	**D 10 (mm)=**	N/A
Hardness of Particles:	Hard	**D 15 (mm)=**	N/A
Dispersion Device:	Device A	**D 30 (mm)=**	N/A
Dispersion Time:	2 minutes	**D 50 (mm)=**	0.0020
Dispersion Agent:	125 mL of a 4% solution of Sodium Hexametaphosphate	**D 60 (mm)=**	0.0047
		D 85 (mm)=	0.032
		Cu =	N/A
Hydrometer Type:	152H	**Cc =**	N/A
Starting Mass of Air Dry (whole) sample (g):	313.54	**Hydroscopic M.C. of Hydrometer**	
Starting Mass of Oven Dry (whole) sample (g):	309.16		
Mass of Air Dry (hydro) Sample (g):	50.00	Tare Mass (g):	31.48
Mass of Oven Dry (hydro) Sample (g):	49.30	Tare + Wet Mass (g):	43.64
Percent Retained on No. 10 Sieve:	0.00	Tare + Dry Mass (g):	43.47
Specific Gravity:	2.650	M.C.%	1.42%

Sieve No.	Mass Retained (g)	%Retained	Grain Dia. (mm)	%Passing
Mechanical Sieve Analysis of Material Retaining on No. 10				
1-1/2"	0.00	0.0	50.0	100.0
1"	0.00	0.0	25.0	100.0
3/4"	0.00	0.0	19.0	100.0
3/8"	0.00	0.0	9.50	100.0
No 4	0.00	0.0	4.75	100.0
No 10	0.00	0.0	2.00	100.0
Mechanical Sieve Analysis of Material Retaining on No. 200				
40	0.01	0.0	0.425	100.0
60	0.05	0.1	0.250	99.9
100	0.38	0.8	0.150	99.2
140	1.10	2.2	0.106	97.8
200	2.01	4.1	0.075	95.9

Hydrometer Analysis of Material Passing No. 10 Sieve

Temperature Deg. (C)	Hydrometer Correction	Hydrometer Reading	Corrected Reading	(L)-Hydrometer Factor	(K)-Dia. Factor	(a)-SP.GR. Factor	Time (min)	Grain Dia. (mm)	% Soil Passing
22.0	5.1	50.0	44.9	9.1	0.01332	1.01	0.5	0.0568	92.1
22.0	5.1	48.0	42.9	9.4	0.01332	1.01	1	0.0408	88.0
22.0	5.1	46.0	40.9	9.7	0.01332	1.01	2	0.0293	83.9
22.0	5.1	43.5	38.4	10.1	0.01332	1.01	5	0.0189	78.8
22.0	5.1	41.0	35.9	10.6	0.01332	1.01	15	0.0112	73.6
22.0	5.1	38.0	32.9	11.1	0.01332	1.01	30	0.0081	67.5
22.0	5.1	36.0	30.9	11.4	0.01332	1.01	60	0.0058	63.4
22.0	5.1	33.5	28.4	11.7	0.01332	1.01	120	0.0042	58.3
22.0	5.1	31.5	26.4	12.0	0.01332	1.01	240	0.0030	54.2
22.5	4.9	27.0	22.1	12.7	0.01317	1.01	1440	0.0012	45.3

Measured Specific Gravity of Material Passing No. 10 Sieve, ASTM D 854 Method B

Air Dry M_S (grams)	Bottle #	T_t (deg. C)	M_P (grams)	V_P (mL)	$\rho_{w,t}$ (g/mL)	Oven Dry M_S (grams)	$M_{pw,t}$ (grams)	$M_{pws,t}$ (grams)	SG_t
100.00	11	24.70	187.44	499.27	0.9971	98.60	685.28	746.67	**2.650**

Per ASTM		
% Gravel =	0.0	**Gravel** > 4.75 (mm)
% Sand =	4.1	4.75 (mm) < **SAND** > .075 (mm)
% Silt =	46.7	.075 (mm) < **SILT** > .002 (mm)
%Clay =	49.2	**CLAY** < .002 (mm)

Atterberg Limits		
L.L.	P.L.	P.I.
N/T	N/T	N/T

Notes:

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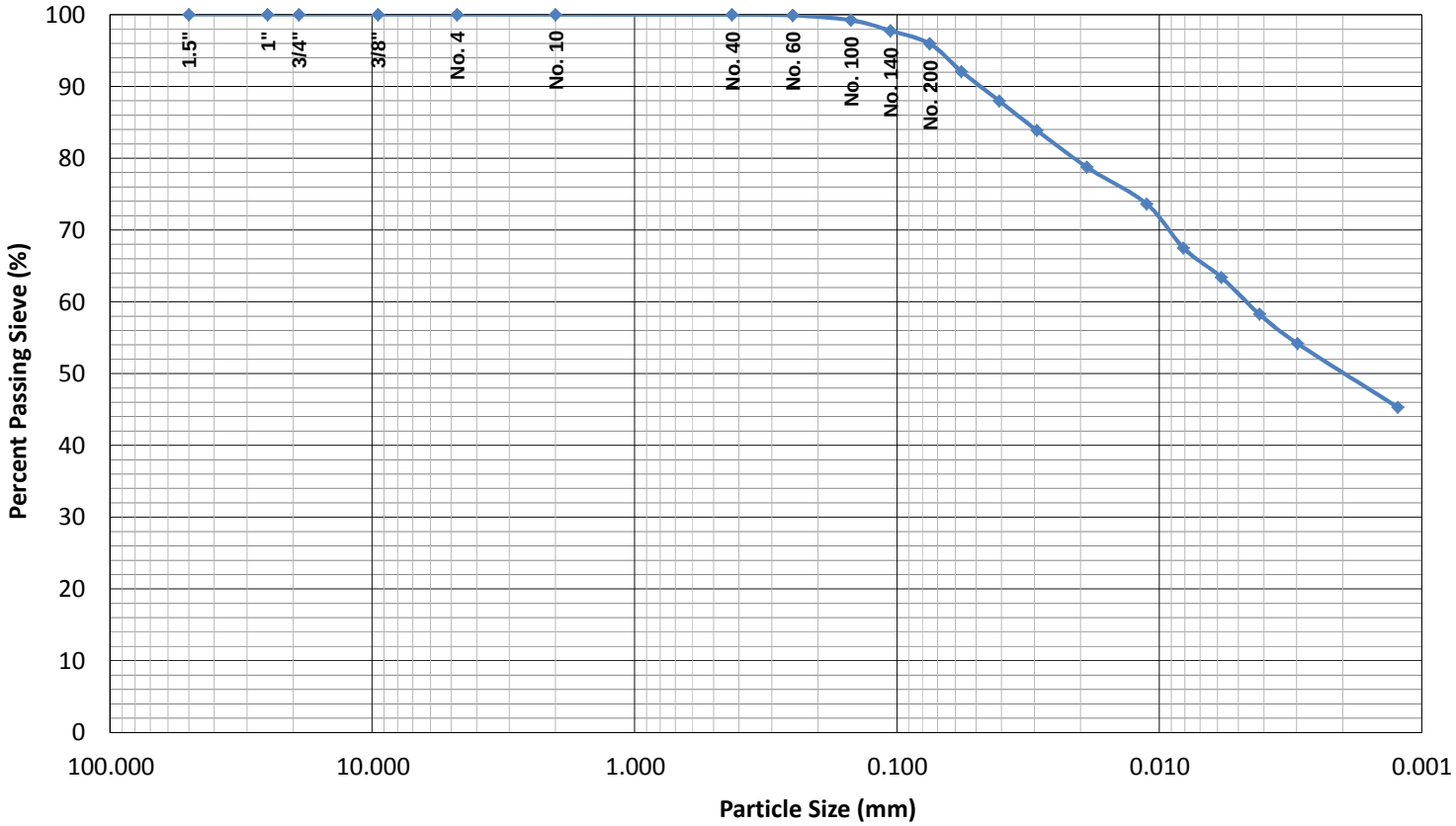
ASTM D 422, Particle Size Distribution Curve By Hydrometer



Sieve No.	Dia. (mm)	% Finer
1.5"	50.0	100.0
1"	25.0	100.0
3/4"	19.0	100.0
3/8"	9.50	100.0
No. 4	4.75	100.0
No. 10	2.00	100.0
No. 40	0.425	100.0
No. 60	0.250	99.9
No. 100	0.150	99.2
No. 140	0.106	97.8
No. 200	0.075	95.9
Hydrometer Analysis	0.0568	92.1
	0.0408	88.0
	0.0293	83.9
	0.0189	78.8
	0.0112	73.6
	0.0081	67.5
	0.0058	63.4
	0.0042	58.3
	0.0030	54.2
	0.0012	45.3

L.L.	N/T
P.L.	N/T
P.I.	N/T
% Sand	4.1
% Silt	46.7
% Clay	49.2
D_{85}	0.0321
D_{60}	0.0047
D_{50}	0.0020
D_{30}	N/A
D_{15}	N/A
D_{10}	N/A
C_u	N/A
C_c	N/A

PROJECT NAME:	LHAAP - 18/24 (60274185)	Location	Sample No.	Depth (ft)	Description and Classification	Specific Gravity	Technician
Client:	AECOM				Gray Lean Clay, (visual CL)		Owen Sanderson
ETTL Inc. Job #	G 3968-13	18CPTMW-01DW		40.5'-41'		2.650	Date: 06/09/13

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HYDRAULIC CONDUCTIVITY DETERMINATION
FLEXIBLE WALL PERMEAMETER - CONSTANT VOLUME
(Mercury Permometer Test) ASTM D 5084

Project : LHAAP - 18/24 (60274185)
Test Date: 6/6/2013 Panel Number : P-4
ETTL Job No.: G 3968-12

Boring No.:	18CPTMW-01DW	a_p = 0.0314	cm^2	Permometer Data	Equilibrium	1.7	cm^3
Sample No:		a_a = 0.7671	cm^2	Set Mercury to Pipet Rp at beginning	Pipet Rp	6.7	cm^3
Depth (ft):	40.5'-41'	M_1 = 0.0302	C = 0.00043		Annulus Ra	1.5	cm^3
Other Location:		M_2 = 1.0410	T = 0.20151				

Material Description : Gray Lean Clay, (visual CL)

SAMPLE DATA

Wet Wt: of Sample :			192.52	g
Diameter :	2.001	in	5.083	cm^2
Length :	1.975	in	5.017	cm
Area:	3.146	in^2	20.30	cm^2
Volume :	6.214	in^3	101.8	cm^3
Unit Wt.(wet):	**118.0**	pcf	**1.891**	g/cm^3
Unit Wt.(dry):	**92.5**	pcf	**1.483**	g/cm^3

Moisture Content

Before Test		After Test	
Tare No.:	O	Tare No.:	C
Wet Wt.+tare:	333.94	Wet Wt.+tare	262.63
Dry Wt.+tare:	276.94	Dry Wt.+tare:	215.24
Tare Wt:	69.56	Tare Wt:	64.51
Dry Wt.:	207.38	Dry Wt.:	150.73
Water Wt.:	57.00	Water Wt.:	47.39
% moist.:	**27.5**	% moist.:	**31.4**

Specific Gravity: **2.650**
Calculated % saturation: **100%**
Void ratio (e) = **0.788**
Porosity (n)= **0.441**

TEST READINGS

Z_1(Mercury Height Difference @ t_1): 2.5 cm Hydraulic Gradient = 6.22

Date	elapsed t (seconds)	Z (pipet @ t)	ΔZp (cm)	temp (deg C)	α (temp corr)	k (cm/sec)	k (ft./day)	Reset = *
6/10/2013	5057	3.7	0.377857	25.5	0.879	1.78E-08	5.05E-05	
6/10/2013	6698	3.6	0.477857	25.5	0.879	1.74E-08	4.94E-05	
6/10/2013	8395	3.5	0.577857	25.5	0.879	1.73E-08	4.89E-05	
6/10/2013	10113	3.4	0.677857	25.5	0.879	1.73E-08	4.90E-05	

SUMMARY

ka =	1.74E-08	cm/sec		Acceptance criteria =	25 %
ki			Vm		
k1 =	1.78E-08	cm/sec	2.1	%	Vm = |ka-ki| / ka x 100
k2 =	1.74E-08	cm/sec	0.1	%	
k3 =	1.73E-08	cm/sec	1.0	%	
k4 =	1.73E-08	cm/sec	1.0	%	

Hydraulic conductivity	k =	**1.74E-08**	cm/sec	**4.95E-05**	ft/day
Void Ratio	e =	**0.788**			
Porosity	n =	**0.441**			
Bulk Density	γ =	**1.891**	g/cm^3	**118.0**	pcf
Water Content	W =	**0.408**	cm^3/cm^3	(at 20 deg C)	
Intrinsic Permeability	k_{int} =	**1.79E-13**	cm^2	(at 20 deg C)	

Liquid Limit (LL):	N/T	
Plastic Limit (PL):	N/T	
Plasticity Index (PI):	**N/T**	
Passing No.200 Sieve:	95.9	%
Retained No.40 Sieve:	0.0	%
Retained No.4 Sieve:	0.0	%

Respectfully Submitted,

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HYDROMETER AND MECHANICAL ANALYSIS OF SOIL BINDER, ASTM D422

PROJECT:	LHAAP - 18/24 (60274185)	**MATERIAL ORIGIN:**	Karnack, Texas
CLIENT:	AECOM	**DATE SAMPLED:**	02/28/13
CONTRACTOR:	not given	**SAMPLED BY:**	Client
ETTL JOB No. :	G 3968-13	**SAMPLE INFO. PROVIDED BY:**	Client
LOCATION/BORING:	18CPTMW-08SW	**TECHNICIAN:**	Owen Sanderson
SAMPLE No:	**DEPTH (ft):** 12.5'-13'	**START DATE:**	06/06/13
DESCRIPTION:	Light Gray & Light Brown Clayey Sand, (visual SC)	**FINISH DATE:**	06/09/13

Starting Masses and Sample Preparation			
Shape of Particles:	Rounded	**D 10 (mm)=**	N/A
Hardness of Particles:	Hard	**D 15 (mm)=**	0.0042
Dispersion Device:	Device A	**D 30 (mm)=**	0.0505
Dispersion Time:	2 minutes	**D 50 (mm)=**	0.0829
Dispersion Agent:	125 mL of a 4% solution of Sodium Hexametaphosphate	**D 60 (mm)=**	0.0999
		D 85 (mm)=	0.144
		Cu =	N/A
Hydrometer Type:	152H	**Cc =**	N/A
Starting Mass of Air Dry (whole) sample (g):	340.31	**Hydroscopic M.C. of Hydrometer**	
Starting Mass of Oven Dry (whole) sample (g):	337.13		
Mass of Air Dry (hydro) Sample (g):	75.00	Tare Mass (g):	30.09
Mass of Oven Dry (hydro) Sample (g):	74.30	Tare + Wet Mass (g):	40.78
Percent Retained on No. 10 Sieve:	0.00	Tare + Dry Mass (g):	40.68
Specific Gravity:	2.694	M.C.%	0.94%

Sieve No.	Mass Retained (g)	%Retained	Grain Dia. (mm)	%Passing
Mechanical Sieve Analysis of Material Retaining on No. 10				
1-1/2"	0.00	0.0	50.0	100.0
1"	0.00	0.0	25.0	100.0
3/4"	0.00	0.0	19.0	100.0
3/8"	0.00	0.0	9.50	100.0
No 4	0.00	0.0	4.75	100.0
No 10	0.00	0.0	2.00	100.0
Mechanical Sieve Analysis of Material Retaining on No. 200				
40	0.01	0.0	0.425	100.0
60	0.29	0.4	0.250	99.6
100	8.85	11.9	0.150	88.1
140	27.35	36.8	0.106	63.2
200	41.16	55.4	0.075	44.6

Hydrometer Analysis of Material Passing No. 10 Sieve

Temperature Deg. (C)	Hydrometer Correction	Hydrometer Reading	Corrected Reading	(L)-Hydrometer Factor	(K)-Dia. Factor	(a)-SP.GR. Factor	Time (min)	Grain Dia. (mm)	% Soil Passing
23.5	4.5	33.0	28.5	11.7	0.01286	1.00	0.5	0.0622	38.3
23.5	4.5	24.5	20.0	13.2	0.01286	1.00	1	0.0467	26.9
23.5	4.5	21.0	16.5	13.7	0.01286	1.00	2	0.0337	22.2
23.5	4.5	19.5	15.0	14.0	0.01286	1.00	5	0.0215	20.1
23.5	4.5	18.5	14.0	14.2	0.01286	1.00	15	0.0125	18.8
23.5	4.5	18.0	13.5	14.2	0.01286	1.00	30	0.0088	18.1
23.3	4.6	17.0	12.4	14.3	0.01301	1.00	60	0.0064	16.7
23.0	4.7	16.0	11.3	14.5	0.01301	1.00	120	0.0045	15.2
22.8	4.8	15.5	10.7	14.7	0.01301	1.00	240	0.0032	14.4
22.0	5.1	15.0	9.9	14.8	0.01316	1.00	1440	0.0013	13.4

Measured Specific Gravity of Material Passing No. 10 Sieve, ASTM D 854 Method B

Air Dry M_S (grams)	Bottle #	T_t (deg. C)	M_P (grams)	V_P (mL)	$\rho_{w,t}$ (g/mL)	Oven Dry M_S (grams)	$M_{pw,t}$ (grams)	$M_{pws,t}$ (grams)	SG_t
100.00	12	23.84	179.19	499.03	0.9973	99.06	676.89	739.19	**2.694**

Per ASTM		
% Gravel =	0.0	**Gravel** > 4.75 (mm)
% Sand =	55.4	4.75 (mm) < **SAND** > .075 (mm)
% Silt =	30.9	.075 (mm) < **SILT** > .002 (mm)
%Clay =	13.7	**CLAY** < .002 (mm)

Atterberg Limits		
L.L.	P.L.	P.I.
N/T	N/T	N/T

Notes:

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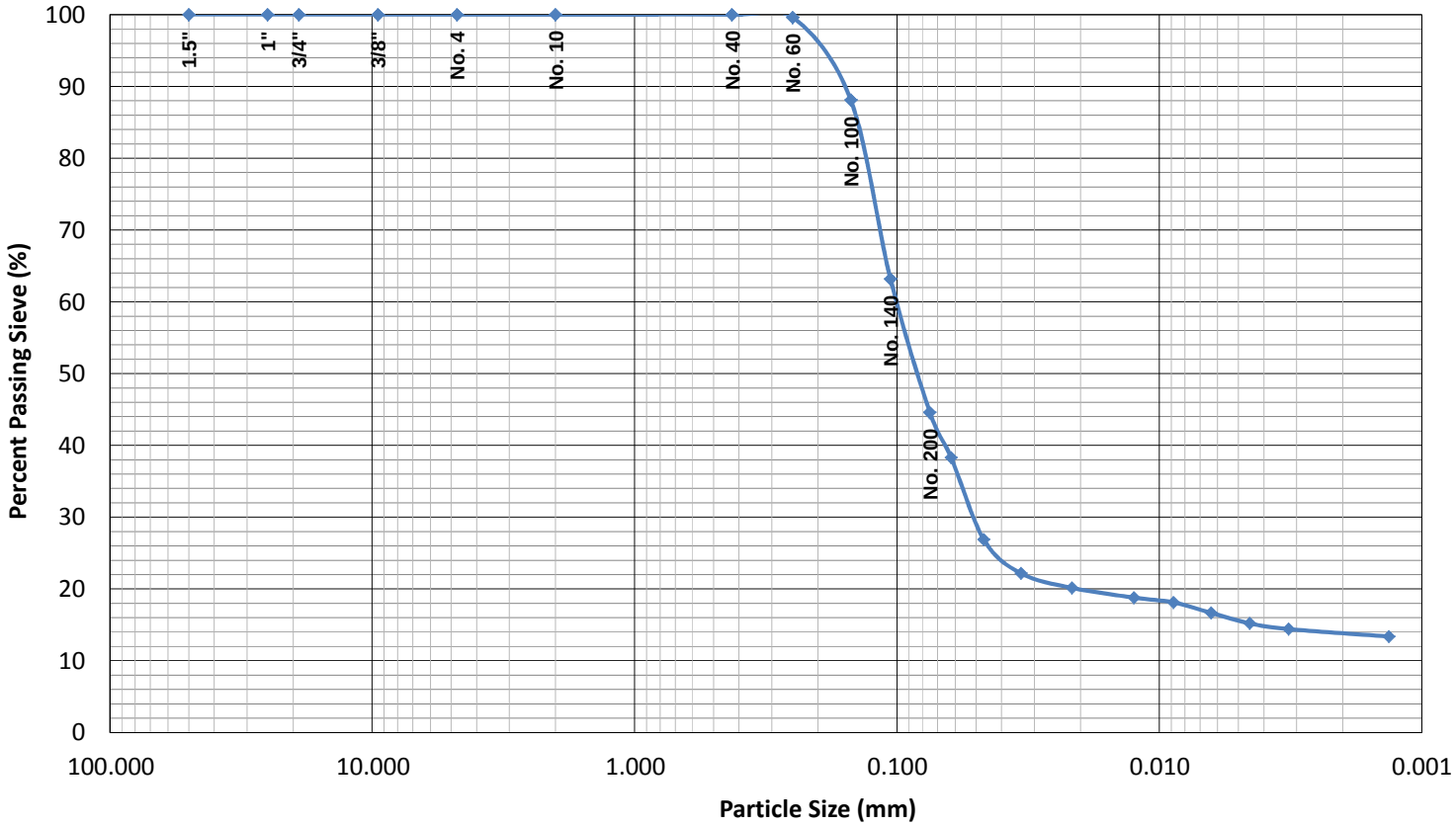
ASTM D 422, Particle Size Distribution Curve By Hydrometer



Sieve No.	Dia. (mm)	% Finer
1.5"	50.0	100.0
1"	25.0	100.0
3/4"	19.0	100.0
3/8"	9.50	100.0
No. 4	4.75	100.0
No. 10	2.00	100.0
No. 40	0.425	100.0
No. 60	0.250	99.6
No. 100	0.150	88.1
No. 140	0.106	63.2
No. 200	0.075	44.6
Hydrometer Analysis	0.0622	38.3
	0.0467	26.9
	0.0337	22.2
	0.0215	20.1
	0.0125	18.8
	0.0088	18.1
	0.0064	16.7
	0.0045	15.2
	0.0032	14.4
	0.0013	13.4

L.L.	N/T
P.L.	N/T
P.I.	N/T
% Sand	55.4
% Silt	30.9
% Clay	13.7
D_{85}	0.1437
D_{60}	0.0999
D_{50}	0.0829
D_{30}	0.0505
D_{15}	0.0042
D_{10}	N/A
C_u	N/A
C_c	N/A

		Location	Sample No.	Depth (ft)	Description and Classification	Specific Gravity	Technician
PROJECT NAME:	LHAAP - 18/24 (60274185)						
Client:	AECOM						Owen Sanderson
ETTL Inc. Job #	G 3968-13	18CPTMW-08SW		12.5'-13'	Light Gray & Light Brown Clayey Sand, (visual SC)	2.694	Date: 06/09/13

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Laboratory Determination of Density (Unit Weight) of Soil Specimens, ASTM D 7263

Method B, Direct Measurement

Project Information

Project: LHAAP - 18/24 (60274185)
Client/Arch./Engr.: AECOM
Contractor: not given
Job No.: G 3968-13

Sample Information

Boring No: **18CPTMW-08SW**
Sample No.: _____ Depth: **12.5'-13'** **ft** Date Sampled: 2/28/2013
Material Origin: Karnack, Texas
Sampling Info. provided By: Client
Material Description: Light Gray & Light Brown Clayey Sand, (visual SC)
Sampled By: Client
Technician: Owen Sanderson Test Date: 6/6/2013
Sampel Type: Undisturbed, Shelby Tube Sample

Test Data

Minimum of 3 Readings

	Diameter (in)	Height (in)	
Diameter (top)	2.500	2.945	Height 1
Diameter (Middle)	2.493	2.949	Height 2
Diameter (bottom)	2.481	2.945	Height 3

LL	PL	Passing No. 200
N/T	N/T	44.6

Ave. Diameter (in)	Ave. Height (in)	Area (in^2)	Volume (in^3)	Wet Wt (g)	Dry Wt. (g)	Total Unit Weight (lbf/ft^3)	Dry Unit Weight (lbf/ft^3)
2.491	2.946	4.875	14.36	451.8	396.8	**119.8**	**105.2**

Ave. Diameter (mm)	Ave. Height (mm)	Area (mm^2)	Volume (L)	Wet Wt. (Kg)	Dry Wt. (Kg)	Total Unit Weight (kN/m^3)	Dry Unit Weight (kN/m^3)
63.28	74.84	3145	0.235	0.4518	0.3968	18.82	16.53

Phase Volumes:

Solids (V_s)	**9.01**	in^3	**Specific Gravity**	**2.694**	**Measured**	Tare #	K
Voids (V_v)	**5.355**	in^3	**e - Void Ratio**	**0.594**		Tare Wt (g)	72.89
Water (V_w)	**3.362**	in^3	**η - Porosity**	**37.3%**		Wet Wt.(g)	524.56
			Degree of Saturation	**62.8%**		Dry Wt (g)	469.60
						ASTM D 2166, Moisture Content	**13.9%**
							From Trimmings

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HYDROMETER AND MECHANICAL ANALYSIS OF SOIL BINDER, ASTM D422

PROJECT:	LHAAP - 18/24 (60274185)	**MATERIAL ORIGIN:**	Karnack, Texas
CLIENT:	AECOM	**DATE SAMPLED:**	03/01/13
CONTRACTOR:	not given	**SAMPLED BY:**	Client
ETTL JOB No. :	G 3968-13	**SAMPLE INFO. PROVIDED BY:**	Client
LOCATION/BORING:	18CPTMW-08SW	**TECHNICIAN:**	Owen Sanderson
SAMPLE No:	**DEPTH (ft):** 22'-23'	**START DATE:**	06/06/13
DESCRIPTION:	Gray & Light Brown Clayey Sand, (visual SC)	**FINISH DATE:**	06/09/13

Starting Masses and Sample Preparation	
Shape of Particles:	Rounded
Hardness of Particles:	Hard
Dispersion Device:	Device A
Dispersion Time:	2 minutes
Dispersion Agent:	125 mL of a 4% solution of Sodium Hexametaphosphate
Hydrometer Type:	152H
Starting Mass of Air Dry (whole) sample (g):	395.16
Starting Mass of Oven Dry (whole) sample (g):	388.10
Mass of Air Dry (hydro) Sample (g):	50.00
Mass of Oven Dry (hydro) Sample (g):	49.11
Percent Retained on No. 10 Sieve:	0.04
Specific Gravity:	2.682

D 10 (mm)=	N/A
D 15 (mm)=	0.0089
D 30 (mm)=	0.0541
D 50 (mm)=	0.0839
D 60 (mm)=	0.1080
D 85 (mm)=	0.171
Cu =	N/A
Cc =	N/A

Hydroscopic M.C. of Hydrometer	
Tare Mass (g):	30.96
Tare + Wet Mass (g):	41.03
Tare + Dry Mass (g):	40.85
M.C.%	1.82%

Sieve No.	Mass Retained (g)	%Retained	Grain Dia. (mm)	%Passing
Mechanical Sieve Analysis of Material Retaining on No. 10				
1-1/2"	0.00	0.0	50.0	100.0
1"	0.00	0.0	25.0	100.0
3/4"	0.00	0.0	19.0	100.0
3/8"	0.00	0.0	9.50	100.0
No 4	0.00	0.0	4.75	100.0
No 10	0.14	0.0	2.00	100.0
Mechanical Sieve Analysis of Material Retaining on No. 200				
40	0.04	0.1	0.425	99.9
60	1.04	2.2	0.250	97.8
100	9.59	19.6	0.150	80.4
140	20.20	41.2	0.106	58.8
200	26.62	54.2	0.075	45.8

Hydrometer Analysis of Material Passing No. 10 Sieve

Temperature Deg. (C)	Hydrometer Correction	Hydrometer Reading	Corrected Reading	(L)-Hydrometer Factor	(K)-Dia. Factor	(a)-SP.GR. Factor	Time (min)	Grain Dia. (mm)	% Soil Passing
22.0	5.1	22.3	17.2	13.5	0.01320	1.00	0.5	0.0686	35.1
22.0	5.1	18.9	13.8	14.2	0.01320	1.00	1	0.0497	28.2
22.0	5.1	15.4	10.3	14.7	0.01320	1.00	2	0.0358	21.1
22.0	5.1	14.0	8.9	15.0	0.01320	1.00	5	0.0229	18.2
22.0	5.1	13.0	7.9	15.2	0.01320	1.00	15	0.0133	16.2
22.0	5.1	12.5	7.4	15.2	0.01320	1.00	30	0.0094	15.2
22.0	5.1	12.0	6.9	15.3	0.01320	1.00	60	0.0067	14.1
22.0	5.1	11.5	6.4	15.3	0.01320	1.00	120	0.0047	13.1
22.0	5.1	11.0	5.9	15.5	0.01320	1.00	240	0.0034	12.1
22.5	4.9	10.0	5.1	15.5	0.01305	1.00	1440	0.0014	10.4

Measured Specific Gravity of Material Passing No. 10 Sieve, ASTM D 854 Method B

Air Dry M_S (grams)	Bottle #	T_t (deg. C)	M_P (grams)	V_P (mL)	$\rho_{w,t}$ (g/mL)	Oven Dry M_S (grams)	$M_{pw,t}$ (grams)	$M_{pws,t}$ (grams)	SG_t
100.00	4	25.40	185.73	499.34	0.9969	98.21	683.55	745.14	**2.682**

Per ASTM		
% Gravel =	0.0	**Gravel** > 4.75 (mm)
% Sand =	54.2	4.75 (mm) < **SAND** > .075 (mm)
% Silt =	34.8	.075 (mm) < **SILT** > .002 (mm)
%Clay =	11.0	**CLAY** < .002 (mm)

Atterberg Limits		
L.L.	P.L.	P.I.
N/T	N/T	N/T

Notes:

Respectfully Submitted

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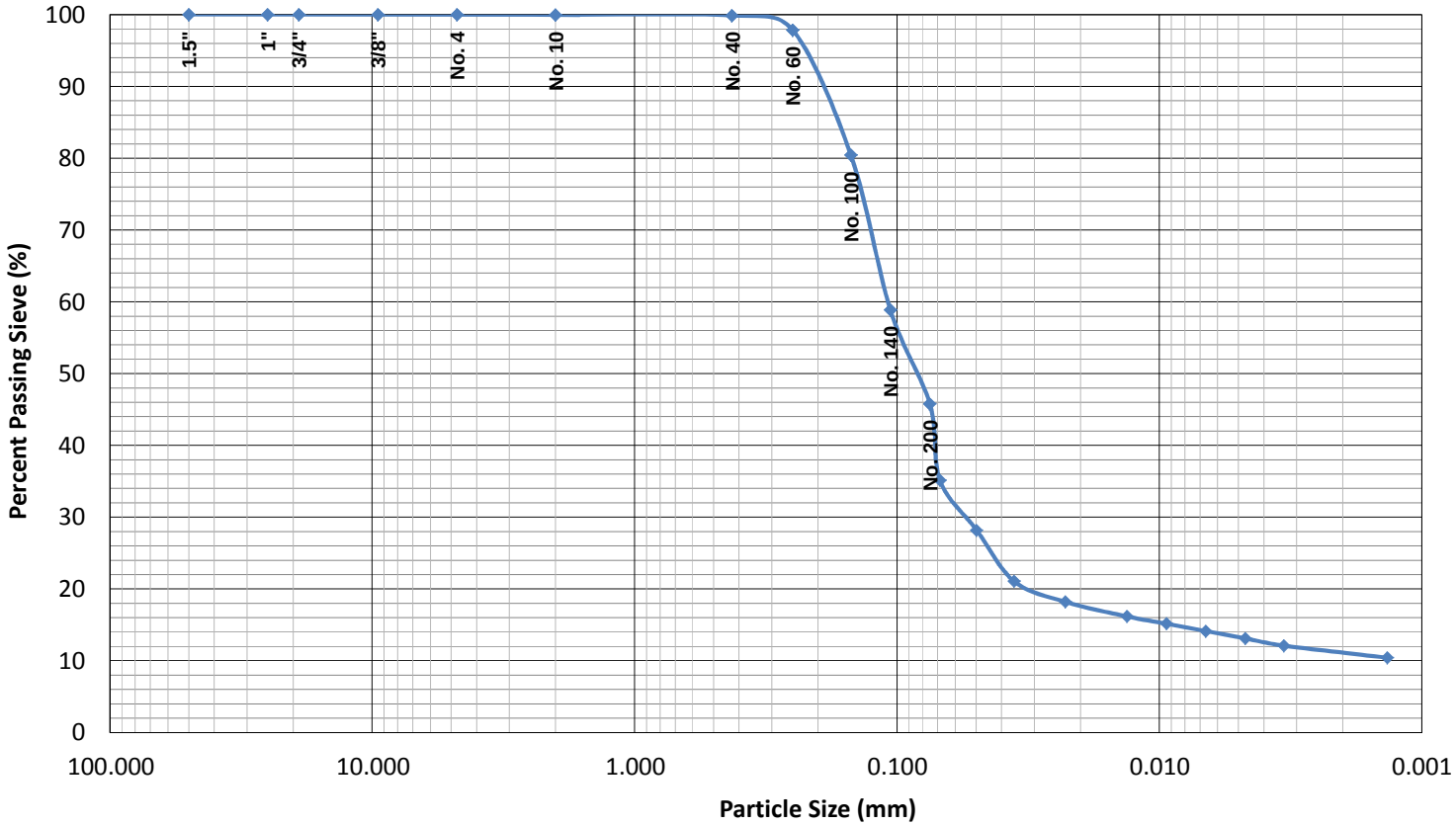
ASTM D 422, Particle Size Distribution Curve By Hydrometer



Sieve No.	Dia. (mm)	% Finer
1.5"	50.0	100.0
1"	25.0	100.0
3/4"	19.0	100.0
3/8"	9.50	100.0
No. 4	4.75	100.0
No. 10	2.00	100.0
No. 40	0.425	99.9
No. 60	0.250	97.8
No. 100	0.150	80.4
No. 140	0.106	58.8
No. 200	0.075	45.8
Hydrometer Analysis	0.0686	35.1
	0.0497	28.2
	0.0358	21.1
	0.0229	18.2
	0.0133	16.2
	0.0094	15.2
	0.0067	14.1
	0.0047	13.1
	0.0034	12.1
	0.0014	10.4

L.L.	N/T
P.L.	N/T
P.I.	N/T
% Sand	54.2
% Silt	34.8
% Clay	11.0
D_{85}	0.1715
D_{60}	0.1080
D_{50}	0.0839
D_{30}	0.0541
D_{15}	0.0089
D_{10}	N/A
C_u	N/A
C_c	N/A

		Location	Sample No.	Depth (ft)	Description and Classification	Specific Gravity	Technician	
PROJECT NAME:	LHAAP - 18/24 (60274185)							
Client:	AECOM				Gray & Light Brown Clayey Sand, (visual SC)		Owen Sanderson	
ETTL Inc. Job #	G 3968-13	18CPTMW-08SW		22'-23'		2.682	Date:	06/09/13

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Laboratory Determination of Density (Unit Weight) of Soil Specimens, ASTM D 7263

Method B, Direct Measurement

Project Information

Project: LHAAP - 18/24 (60274185)
Client/Arch./Engr.: AECOM
Contractor: not given
Job No.: G 3968-13

Sample Information

Boring No: **18CPTMW-08SW**
Sample No.: _____ Depth: **22'-23'** **ft** Date Sampled: 3/1/2013
Material Origin: Karnack, Texas
Sampling Info. provided By: Client
Material Description: Gray & Light Gray Clayey Sand, (visual SC)
Sampled By: Client
Technician: Owen Sanderson Test Date: 6/6/2013
Sampel Type: Undisturbed, Shelby Tube Sample

Test Data

Minimum of 3 Readings

	Diameter (in)	Height (in)	
Diameter (top)	2.500	1.000	Height 1
Diameter (Middle)	2.500	1.000	Height 2
Diameter (bottom)	2.500	1.000	Height 3

LL	PL	Passing No. 200
N/T	N/T	45.8

Ave. Diameter (in)	Ave. Height (in)	Area (in^2)	Volume (in^3)	Wet Wt (g)	Dry Wt. (g)	Total Unit Weight (lbf/ft^3)	Dry Unit Weight (lbf/ft^3)
2.500	1.000	4.909	4.91	164.2	139.3	**127.4**	**108.1**

Ave. Diameter (mm)	Ave. Height (mm)	Area (mm^2)	Volume (L)	Wet Wt. (Kg)	Dry Wt. (Kg)	Total Unit Weight (kN/m^3)	Dry Unit Weight (kN/m^3)
63.50	25.40	3167	0.080	0.1642	0.1393	20.02	16.98

Phase Volumes:

Solids (V_s)	**3.18**	in^3	**Specific Gravity**	**2.682**	**Measured**	Tare #	W
Voids (V_v)	**1.732**	in^3	**e - Void Ratio**	**0.545**		Tare Wt (g)	72.27
Water (V_w)	**1.523**	in^3	**η - Porosity**	**35.3%**		Wet Wt.(g)	204.48
			Degree of Saturation	**87.9%**		Dry Wt (g)	184.43
					ASTM D 2166, Moisture Content		**17.9%**
							From Trimmings

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HYDROMETER AND MECHANICAL ANALYSIS OF SOIL BINDER, ASTM D422

PROJECT:	LHAAP - 18/24 (60274185)	**MATERIAL ORIGIN:**	Karnack, Texas
CLIENT:	AECOM	**DATE SAMPLED:**	03/01/13
CONTRACTOR:	not given	**SAMPLED BY:**	Client
ETTL JOB No. :	G 3968-13	**SAMPLE INFO. PROVIDED BY:**	Client
LOCATION/BORING:	18CPTMW-08SW	**TECHNICIAN:**	Owen Sanderson
SAMPLE No:	**DEPTH (ft):** 32'-32.5'	**START DATE:**	06/06/13
DESCRIPTION:	Light Gray Fat Clay with sand, (visual CH)	**FINISH DATE:**	06/09/13

Starting Masses and Sample Preparation								
Shape of Particles:	Angular	**D 10 (mm)=**	N/A	**Sieve No.**	**Mass Retained (g)**	**%Retained**	**Grain Dia. (mm)**	**%Passing**
Hardness of Particles:	Weathered	**D 15 (mm)=**	N/A	**Mechanical Sieve Analysis of Material Retaining on No. 10**				
Dispersion Device:	Device A	**D 30 (mm)=**	0.0045	1-1/2"	0.00	0.0	50.0	100.0
Dispersion Time:	2 minutes	**D 50 (mm)=**	0.0247	1"	0.00	0.0	25.0	100.0
Dispersion Agent:	125 mL of a 4% solution of Sodium Hexametaphosphate	**D 60 (mm)=**	0.0406	3/4"	0.00	0.0	19.0	100.0
		D 85 (mm)=	0.081	3/8"	0.00	0.0	9.50	100.0
		Cu =	N/A	No 4	0.00	0.0	4.75	100.0
Hydrometer Type:	152H	**Cc =**	N/A	No 10	0.00	0.0	2.00	100.0
Starting Mass of Air Dry (whole) sample (g):	354.80	**Hydroscopic M.C. of Hydrometer**		**Mechanical Sieve Analysis of Material Retaining on No. 200**				
Starting Mass of Oven Dry (whole) sample (g):	351.56			40	0.01	0.0	0.425	100.0
Mass of Air Dry (hydro) Sample (g):	50.00	Tare Mass (g):	31.53	60	0.11	0.2	0.250	99.8
Mass of Oven Dry (hydro) Sample (g):	49.54	Tare + Wet Mass (g):	44.68	100	1.27	2.6	0.150	97.4
Percent Retained on No. 10 Sieve:	0.00	Tare + Dry Mass (g):	44.56	140	4.28	8.6	0.106	91.4
Specific Gravity:	2.680	M.C.%	0.92%	200	8.31	16.8	0.075	83.2

Hydrometer Analysis of Material Passing No. 10 Sieve

Temperature Deg. (C)	Hydrometer Correction	Hydrometer Reading	Corrected Reading	(L)-Hydrometer Factor	(K)-Dia. Factor	(a)-SP.GR. Factor	Time (min)	Grain Dia. (mm)	% Soil Passing
22.5	4.9	40.0	35.1	10.6	0.01305	1.00	0.5	0.0601	70.9
22.5	4.9	35.5	30.6	11.4	0.01305	1.00	1	0.0441	61.8
22.5	4.9	32.0	27.1	11.9	0.01305	1.00	2	0.0318	54.7
22.5	4.9	28.0	23.1	12.5	0.01305	1.00	5	0.0206	46.7
22.5	4.9	25.0	20.1	13.0	0.01305	1.00	15	0.0121	40.6
22.5	4.9	23.0	18.1	13.3	0.01305	1.00	30	0.0087	36.6
22.0	5.1	21.0	15.9	13.8	0.01320	1.00	60	0.0063	32.2
21.8	5.1	20.0	14.9	14.0	0.01320	1.00	120	0.0045	30.0
21.8	5.1	19.0	13.9	14.2	0.01320	1.00	240	0.0032	28.0
22.5	4.9	16.5	11.6	14.5	0.01305	1.00	1440	0.0013	23.4

Measured Specific Gravity of Material Passing No. 10 Sieve, ASTM D 854 Method B

Air Dry M_S (grams)	Bottle #	T_t (deg. C)	M_P (grams)	V_P (mL)	$\rho_{w,t}$ (g/mL)	Oven Dry M_S (grams)	$M_{pw,t}$ (grams)	$M_{pws,t}$ (grams)	SG_t
100.00	5	26.30	182.14	498.97	0.9967	99.09	679.47	741.59	**2.680**

Per ASTM		
% Gravel =	0.0	**Gravel** > 4.75 (mm)
% Sand =	16.8	4.75 (mm) < **SAND** > .075 (mm)
% Silt =	58.1	.075 (mm) < **SILT** > .002 (mm)
%Clay =	25.1	**CLAY** < .002 (mm)

Atterberg Limits		
L.L.	P.L.	P.I.
N/T	N/T	N/T

Notes:

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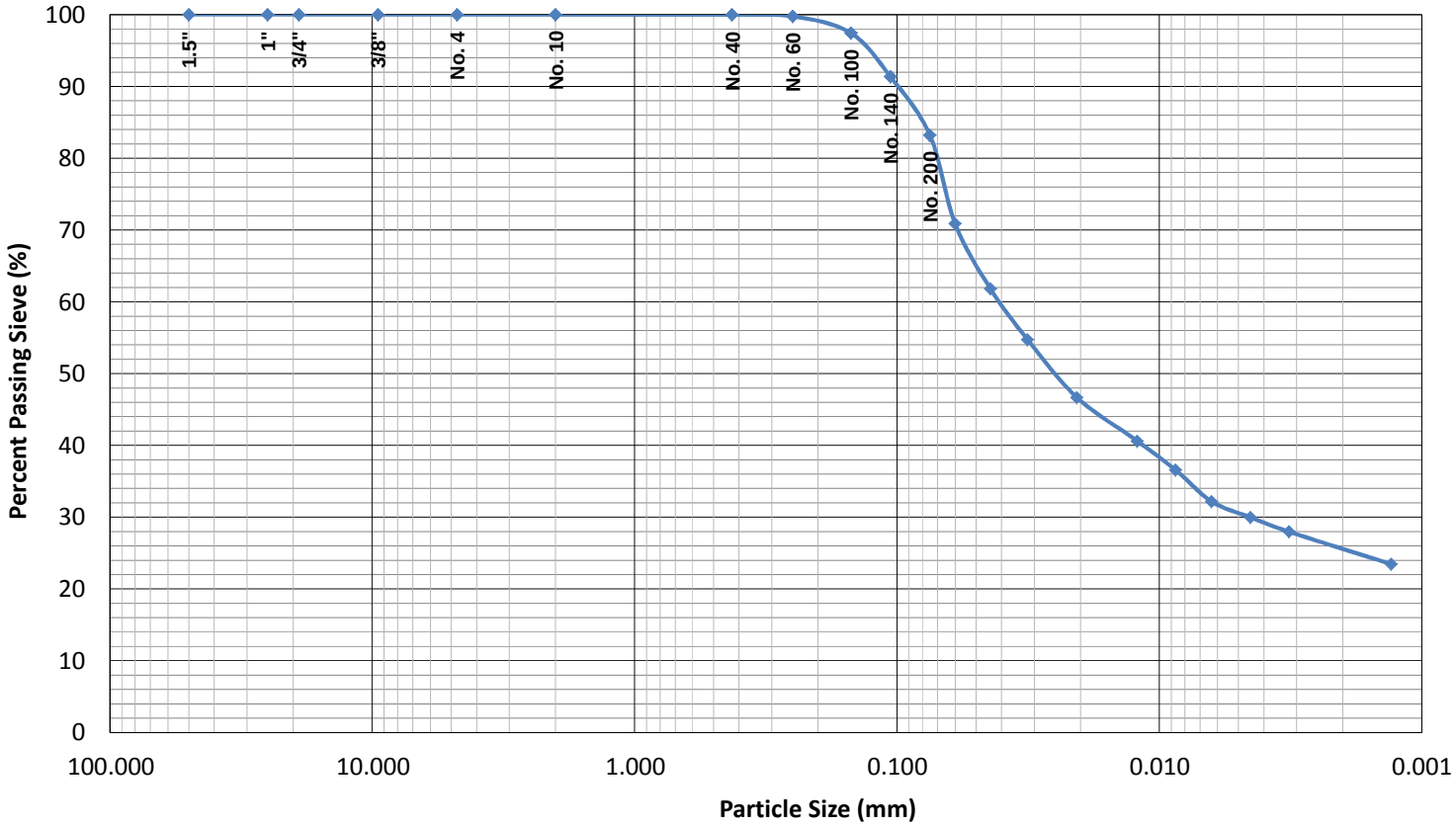
ASTM D 422, Particle Size Distribution Curve By Hydrometer



Sieve No.	Dia. (mm)	% Finer
1.5"	50.0	100.0
1"	25.0	100.0
3/4"	19.0	100.0
3/8"	9.50	100.0
No. 4	4.75	100.0
No. 10	2.00	100.0
No. 40	0.425	100.0
No. 60	0.250	99.8
No. 100	0.150	97.4
No. 140	0.106	91.4
No. 200	0.075	83.2
Hydrometer Analysis	0.0601	70.9
	0.0441	61.8
	0.0318	54.7
	0.0206	46.7
	0.0121	40.6
	0.0087	36.6
	0.0063	32.2
	0.0045	30.0
	0.0032	28.0
	0.0013	23.4

L.L.	N/T
P.L.	N/T
P.I.	N/T
% Sand	16.8
% Silt	58.1
% Clay	25.1
D_{85}	0.0809
D_{60}	0.0406
D_{50}	0.0247
D_{30}	0.0045
D_{15}	N/A
D_{10}	N/A
C_u	N/A
C_c	N/A

PROJECT NAME:	LHAAP - 18/24 (60274185)	Location	Sample No.	Depth (ft)	Description and Classification	Specific Gravity	Technician
Client:	AECOM				Light Gray Fat Clay with sand, (visual CH)		Owen Sanderson
ETTL Inc. Job #	G 3968-13	18CPTMW-08SW		32'-32.5'		2.680	Date: 06/09/13

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Laboratory Determination of Density (Unit Weight) of Soil Specimens, ASTM D 7263

Method B, Direct Measurement

Project Information

Project: LHAAP - 18/24 (60274185)
Client/Arch./Engr.: AECOM
Contractor: not given
Job No.: G 3968-13

Sample Information

Boring No: **18CPTMW-08SW**
Sample No.: Depth: **32'-32.5' ft** Date Sampled: 3/1/2013
Material Origin: Karnack, Texas
Sampling Info. provided By: Client
Material Description: Light Gray Fat Clay with sand, (visual CH)
Sampled By: Client
Technician: Owen Sanderson Test Date: 6/6/2013
Sampel Type: Undisturbed, Shelby Tube Sample

Test Data

Minimum of 3 Readings

	Diameter (in)	Height (in)	
Diameter (top)	2.470	2.728	Height 1
Diameter (Middle)	2.475	2.695	Height 2
Diameter (bottom)	2.473	2.710	Height 3

LL	PL	Passing No. 200
N/T	N/T	83.2

Ave. Diameter (in)	Ave. Height (in)	Area (in^2)	Volume (in^3)	Wet Wt (g)	Dry Wt. (g)	Total Unit Weight (lbf/ft^3)	Dry Unit Weight (lbf/ft^3)
2.472	2.711	4.801	13.01	449.4	382.8	**131.6**	**112.1**

Ave. Diameter (mm)	Ave. Height (mm)	Area (mm^2)	Volume (L)	Wet Wt. (Kg)	Dry Wt. (Kg)	Total Unit Weight (kN/m^3)	Dry Unit Weight (kN/m^3)
62.80	68.86	3097	0.213	0.4494	0.3828	20.67	17.60

Phase Volumes:

Solids (V_s)	**8.74**	in^3	**Specific Gravity**	**2.680**	**Measured**	Tare #	I
Voids (V_v)	**4.278**	in^3	**e - Void Ratio**	**0.490**		Tare Wt (g)	70.86
Water (V_w)	**4.073**	in^3	**η - Porosity**	**32.9%**		Wet Wt.(g)	520.15
			Degree of Saturation	**95.2%**		Dry Wt (g)	453.57
					ASTM D 2166, Moisture Content		**17.4%**
							From Trimmings

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HYDROMETER AND MECHANICAL ANALYSIS OF SOIL BINDER, ASTM D422

PROJECT:	LHAAP - 18/24 (60274185)	**MATERIAL ORIGIN:**	Karnack, Texas
CLIENT:	AECOM	**DATE SAMPLED:**	03/04/13
CONTRACTOR:	not given	**SAMPLED BY:**	Client
ETTL JOB No. :	G 3968-13	**SAMPLE INFO. PROVIDED BY:**	Client
LOCATION/BORING:	18CPTMW-10DW	**TECHNICIAN:**	Owen Sanderson
SAMPLE No:	**DEPTH (ft):** 16'-17'	**START DATE:**	06/06/13
DESCRIPTION:	Light Gray & Orangish Brown Fat Clay, (visual CH)	**FINISH DATE:**	06/09/13

Starting Masses and Sample Preparation			
Shape of Particles:	Rounded	**D 10 (mm)=**	N/A
Hardness of Particles:	Hard	**D 15 (mm)=**	N/A
Dispersion Device:	Device A	**D 30 (mm)=**	N/A
Dispersion Time:	2 minutes	**D 50 (mm)=**	0.0016
Dispersion Agent:	125 mL of a 4% solution of Sodium Hexametaphosphate	**D 60 (mm)=**	0.0037
		D 85 (mm)=	0.052
		Cu =	N/A
Hydrometer Type:	152H	**Cc =**	N/A
Starting Mass of Air Dry (whole) sample (g):	352.32	**Hydroscopic M.C. of Hydrometer**	
Starting Mass of Oven Dry (whole) sample (g):	339.80		
Mass of Air Dry (hydro) Sample (g):	50.00	Tare Mass (g):	29.74
Mass of Oven Dry (hydro) Sample (g):	48.22	Tare + Wet Mass (g):	40.43
Percent Retained on No. 10 Sieve:	0.04	Tare + Dry Mass (g):	40.05
Specific Gravity:	2.705	M.C.%	3.69%

Sieve No.	Mass Retained (g)	%Retained	Grain Dia. (mm)	%Passing
Mechanical Sieve Analysis of Material Retaining on No. 10				
1-1/2"	0.00	0.0	50.0	100.0
1"	0.00	0.0	25.0	100.0
3/4"	0.00	0.0	19.0	100.0
3/8"	0.00	0.0	9.50	100.0
No 4	0.00	0.0	4.75	100.0
No 10	0.15	0.0	2.00	100.0
Mechanical Sieve Analysis of Material Retaining on No. 200				
40	0.72	1.5	0.425	98.5
60	1.20	2.5	0.250	97.5
100	2.94	6.1	0.150	93.9
140	4.73	9.8	0.106	90.2
200	5.84	12.1	0.075	87.9

Hydrometer Analysis of Material Passing No. 10 Sieve

Temperature Deg. (C)	Hydrometer Correction	Hydrometer Reading	Corrected Reading	(L)-Hydrometer Factor	(K)-Dia. Factor	(a)-SP.GR. Factor	Time (min)	Grain Dia. (mm)	% Soil Passing
23.0	4.7	46.5	41.8	9.6	0.01297	0.99	0.5	0.0568	85.8
23.0	4.7	45.0	40.3	9.7	0.01297	0.99	1	0.0404	82.7
23.0	4.7	44.0	39.3	9.9	0.01297	0.99	2	0.0289	80.6
23.0	4.7	43.0	38.3	10.1	0.01297	0.99	5	0.0184	78.6
23.0	4.7	41.0	36.3	10.4	0.01297	0.99	15	0.0108	74.5
23.0	4.7	39.0	34.3	10.7	0.01297	0.99	30	0.0077	70.4
23.0	4.7	37.0	32.3	11.1	0.01297	0.99	60	0.0056	66.3
23.0	4.7	34.5	29.8	11.5	0.01297	0.99	120	0.0040	61.1
22.8	4.8	32.5	27.7	11.9	0.01297	0.99	240	0.0029	56.9
22.0	5.1	28.0	22.9	12.7	0.01312	0.99	1440	0.0012	47.1

Measured Specific Gravity of Material Passing No. 10 Sieve, ASTM D 854 Method B

Air Dry M_S (grams)	Bottle #	T_t (deg. C)	M_P (grams)	V_P (mL)	$\rho_{w,t}$ (g/mL)	Oven Dry M_S (grams)	$M_{pw,t}$ (grams)	$M_{pws,t}$ (grams)	SG_t
100.00	10	23.58	187.99	499.17	0.9974	96.45	685.86	746.65	**2.705**

Per ASTM		
% Gravel =	0.0	**Gravel** > 4.75 (mm)
% Sand =	12.1	4.75 (mm) < **SAND** > .075 (mm)
% Silt =	36.2	.075 (mm) < **SILT** > .002 (mm)
%Clay =	51.6	**CLAY** < .002 (mm)

Atterberg Limits		
L.L.	P.L.	P.I.
N/T	N/T	N/T

Notes:

Respectfully Submitted

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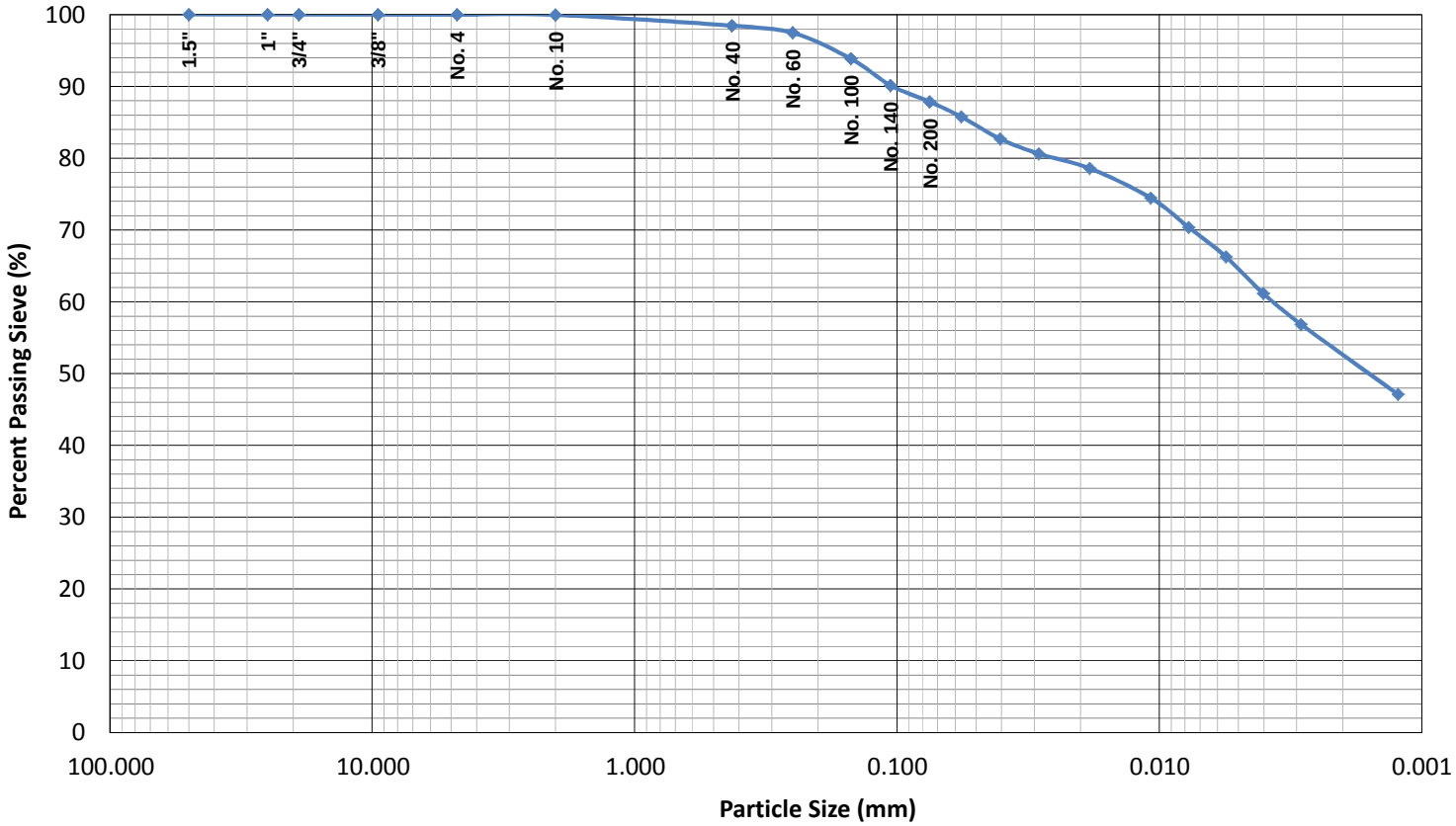
ASTM D 422, Particle Size Distribution Curve By Hydrometer



Sieve No.	Dia. (mm)	% Finer
1.5"	50.0	100.0
1"	25.0	100.0
3/4"	19.0	100.0
3/8"	9.50	100.0
No. 4	4.75	100.0
No. 10	2.00	100.0
No. 40	0.425	98.5
No. 60	0.250	97.5
No. 100	0.150	93.9
No. 140	0.106	90.2
No. 200	0.075	87.9
Hydrometer Analysis	0.0568	85.8
	0.0404	82.7
	0.0289	80.6
	0.0184	78.6
	0.0108	74.5
	0.0077	70.4
	0.0056	66.3
	0.0040	61.1
	0.0029	56.9
	0.0012	47.1

L.L.	N/T
P.L.	N/T
P.I.	N/T
% Sand	12.1
% Silt	36.2
% Clay	51.6
D_{85}	0.0522
D_{60}	0.0037
D_{50}	0.0016
D_{30}	N/A
D_{15}	N/A
D_{10}	N/A
C_u	N/A
C_c	N/A

PROJECT NAME:	LHAAP - 18/24 (60274185)	Location	Sample No.	Depth (ft)	Description and Classification	Specific Gravity	Technician
Client:	AECOM				Light Gray & Orangish Brown Fat Clay, (visual CH)		Owen Sanderson
ETTL Inc. Job #	G 3968-13	18CPTMW-10DW		16'-17'		2.705	Date: 06/09/13

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Laboratory Determination of Density (Unit Weight) of Soil Specimens, ASTM D 7263

Method B, Direct Measurement

Project Information

Project: LHAAP - 18/24 (60274185)
Client/Arch./Engr.: AECOM
Contractor: not given
Job No.: G 3968-13

Sample Information

Boring No: **18CPTMW-10DW**
Sample No.: _____ Depth: **16'-17'** **ft** Date Sampled: 2/27/2013
Material Origin: Karnack, Texas
Sampling Info. provided By: Client
Material Description: Light Gray & Orangish Brown Fat Clay, (visual CH)
Sampled By: Client
Technician: Owen Sanderson Test Date: 6/6/2013
Sampel Type: Undisturbed, Shelby Tube Sample

Test Data

Minimum of 3 Readings

	Diameter (in)	Height (in)	
Diameter (top)	2.500	1.000	Height 1
Diameter (Middle)	2.500	1.000	Height 2
Diameter (bottom)	2.500	1.000	Height 3

LL	PL	Passing No. 200
N/T	N/T	87.9

Ave. Diameter (in)	Ave. Height (in)	Area (in^2)	Volume (in^3)	Wet Wt (g)	Dry Wt. (g)	Total Unit Weight (lbf/ft^3)	Dry Unit Weight (lbf/ft^3)
2.500	1.000	4.909	4.91	144.0	114.1	**111.7**	**88.6**

Ave. Diameter (mm)	Ave. Height (mm)	Area (mm^2)	Volume (L)	Wet Wt. (Kg)	Dry Wt. (Kg)	Total Unit Weight (kN/m^3)	Dry Unit Weight (kN/m^3)
63.50	25.40	3167	0.080	0.1440	0.1141	17.55	13.91

Phase Volumes:

Solids (V_s)	**2.56**	in^3	**Specific Gravity**	**2.730**	**Measured**	Tare #	F
Voids (V_v)	**2.352**	in^3	**e - Void Ratio**	**0.920**		Tare Wt (g)	65.55
Water (V_w)	**1.826**	in^3	**η - Porosity**	**47.9%**		Wet Wt.(g)	333.82
			Degree of Saturation	**77.6%**		Dry Wt (g)	278.18
					ASTM D 2166, Moisture Content		**26.2%**
							From Trimmings

Respectfully submitted

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HYDROMETER AND MECHANICAL ANALYSIS OF SOIL BINDER, ASTM D422

PROJECT:	LHAAP - 18/24 (60274185)	**MATERIAL ORIGIN:**	Karnack, Texas
CLIENT:	AECOM	**DATE SAMPLED:**	03/04/13
CONTRACTOR:	not given	**SAMPLED BY:**	Client
ETTL JOB No. :	G 3968-13	**SAMPLE INFO. PROVIDED BY:**	Client
LOCATION/BORING:	18CPTMW-10DW	**TECHNICIAN:**	Owen Sanderson
SAMPLE No:	**DEPTH (ft):** 18'-19'	**START DATE:**	06/06/13
DESCRIPTION:	Light Gray, Orangish Brown & Light Brown Fat Clay, (visual CH)	**FINISH DATE:**	06/09/13

Starting Masses and Sample Preparation			
Shape of Particles:	Angular	**D 10 (mm)=**	N/A
Hardness of Particles:	Weathered	**D 15 (mm)=**	N/A
Dispersion Device:	Device A	**D 30 (mm)=**	N/A
Dispersion Time:	2 minutes	**D 50 (mm)=**	0.0039
Dispersion Agent:	125 mL of a 4% solution of Sodium Hexametaphosphate	**D 60 (mm)=**	0.0068
		D 85 (mm)=	0.024
		Cu =	N/A
Hydrometer Type:	152H	**Cc =**	N/A
Starting Mass of Air Dry (whole) sample (g):	298.57	**Hydroscopic M.C. of Hydrometer**	
Starting Mass of Oven Dry (whole) sample (g):	289.39		
Mass of Air Dry (hydro) Sample (g):	50.00	Tare Mass (g):	29.88
Mass of Oven Dry (hydro) Sample (g):	48.46	Tare + Wet Mass (g):	41.59
Percent Retained on No. 10 Sieve:	0.03	Tare + Dry Mass (g):	41.23
Specific Gravity:	2.671	M.C.%	3.17%

Sieve No.	Mass Retained (g)	%Retained	Grain Dia. (mm)	%Passing
Mechanical Sieve Analysis of Material Retaining on No. 10				
1-1/2"	0.00	0.0	50.0	100.0
1"	0.00	0.0	25.0	100.0
3/4"	0.00	0.0	19.0	100.0
3/8"	0.00	0.0	9.50	100.0
No 4	0.00	0.0	4.75	100.0
No 10	0.10	0.0	2.00	100.0
Mechanical Sieve Analysis of Material Retaining on No. 200				
40	0.02	0.1	0.425	99.9
60	0.07	0.2	0.250	99.8
100	0.30	0.7	0.150	99.3
140	0.64	1.4	0.106	98.6
200	1.15	2.4	0.075	97.6

Hydrometer Analysis of Material Passing No. 10 Sieve

Temperature Deg. (C)	Hydrometer Correction	Hydrometer Reading	Corrected Reading	(L)-Hydrometer Factor	(K)-Dia. Factor	(a)-SP.GR. Factor	Time (min)	Grain Dia. (mm)	% Soil Passing
24.0	4.4	51.0	46.6	8.8	0.01293	1.00	0.5	0.0543	96.2
24.0	4.4	49.5	45.1	8.9	0.01293	1.00	1	0.0386	93.1
24.0	4.4	47.0	42.6	9.4	0.01293	1.00	2	0.0280	87.9
24.0	4.4	43.5	39.1	9.9	0.01293	1.00	5	0.0182	80.7
24.0	4.4	39.0	34.6	10.7	0.01293	1.00	15	0.0109	71.4
23.8	4.4	35.0	30.6	11.4	0.01293	1.00	30	0.0080	63.0
23.5	4.5	32.0	27.5	11.9	0.01293	1.00	60	0.0058	56.7
23.3	4.6	29.5	24.9	12.4	0.01309	1.00	120	0.0042	51.3
22.8	4.8	27.0	22.2	12.7	0.01309	1.00	240	0.0030	45.8
22.0	5.1	23.5	18.4	13.3	0.01324	1.00	1440	0.0013	38.0

Measured Specific Gravity of Material Passing No. 10 Sieve, ASTM D 854 Method B

Air Dry M_S (grams)	Bottle #	T_t (deg. C)	M_P (grams)	V_P (mL)	$\rho_{w,t}$ (g/mL)	Oven Dry M_S (grams)	$M_{pw,t}$ (grams)	$M_{pws,t}$ (grams)	SG_t
100.00	11	23.58	187.44	499.27	0.9974	96.93	685.41	746.05	**2.671**

Per ASTM		
% Gravel =	0.0	**Gravel** > 4.75 (mm)
% Sand =	2.4	4.75 (mm) < **SAND** > .075 (mm)
% Silt =	56.3	.075 (mm) < **SILT** > .002 (mm)
%Clay =	41.3	**CLAY** < .002 (mm)

Atterberg Limits		
L.L.	P.L.	P.I.
N/T	N/T	N/T

Notes:

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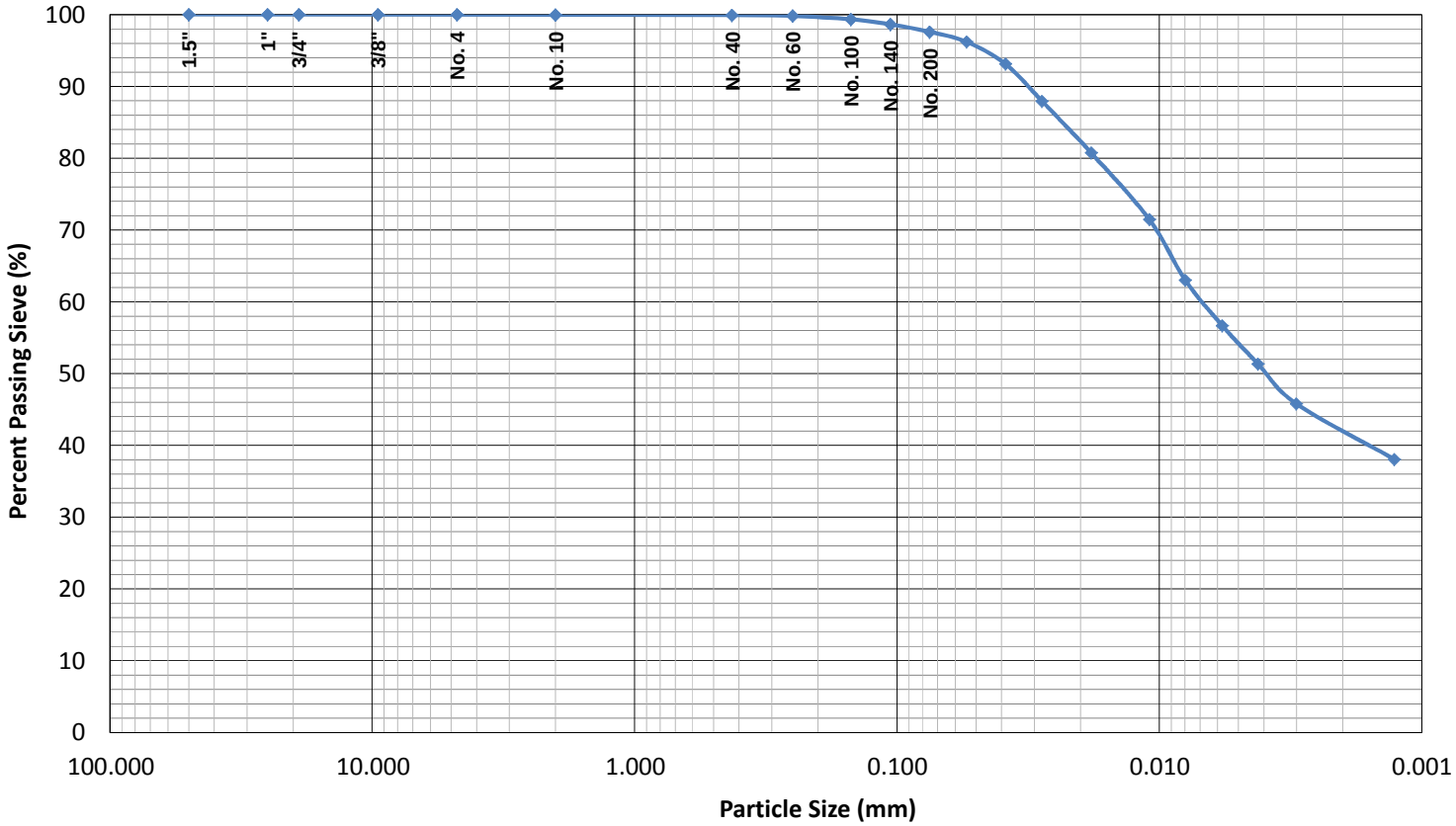
ETTL Engineers & Consultants Inc.

GEOTECHNICAL ✶ MATERIALS ✶ ENVIRONMENTAL ✶ DRILLING ✶ LANDFILLS

ASTM D 422, Particle Size Distribution Curve By Hydrometer



Sieve No.	Dia. (mm)	% Finer
1.5"	50.0	100.0
1"	25.0	100.0
3/4"	19.0	100.0
3/8"	9.50	100.0
No. 4	4.75	100.0
No. 10	2.00	100.0
No. 40	0.425	99.9
No. 60	0.250	99.8
No. 100	0.150	99.3
No. 140	0.106	98.6
No. 200	0.075	97.6
Hydrometer Analysis	0.0543	96.2
	0.0386	93.1
	0.0280	87.9
	0.0182	80.7
	0.0109	71.4
	0.0080	63.0
	0.0058	56.7
	0.0042	51.3
	0.0030	45.8
	0.0013	38.0

L.L.	N/T
P.L.	N/T
P.I.	N/T
% Sand	2.4
% Silt	56.3
% Clay	41.3
D_{85}	0.0235
D_{60}	0.0068
D_{50}	0.0039
D_{30}	N/A
D_{15}	N/A
D_{10}	N/A
C_u	N/A
C_c	N/A

		Location	Sample No.	Depth (ft)	Description and Classification	Specific Gravity	Technician
PROJECT NAME:	LHAAP - 18/24 (60274185)						
Client:	AECOM				Light Gray, Orangish Brown & Light Brown Fat Clay, (visual CH)		Owen Sanderson
ETTL Inc. Job #	G 3968-13	18CPTMW-10DW		18'-19'		2.671	Date: 06/09/13

ETTL Engineers & Consultants Inc.

GEOTECHNICAL ✶ MATERIALS ✶ ENVIRONMENTAL ✶ DRILLING ✶ LANDFILLS

Laboratory Determination of Density (Unit Weight) of Soil Specimens, ASTM D 7263

Method B, Direct Measurement

Project Information

Project: LHAAP - 18/24 (60274185)
Client/Arch./Engr.: AECOM
Contractor: not given
Job No.: G 3968-13

Sample Information

Boring No: **18CPTMW-10DW**
Sample No.: _____ Depth: **18'-19'** **ft** Date Sampled: 3/4/2013
Material Origin: Karnack, Texas
Sampling Info. provided By: Client
Material Description: Light Gray, Orangish Brown & Light Brown Fat Clay, (visual CH)
Sampled By: Client
Technician: Owen Sanderson Test Date: 6/6/2013
Sampel Type: Undisturbed, Shelby Tube Sample

Test Data

Minimum of 3 Readings

	Diameter (in)	Height (in)	
Diameter (top)	2.484	2.492	Height 1
Diameter (Middle)	2.492	2.488	Height 2
Diameter (bottom)	2.492	2.482	Height 3

LL	PL	Passing No. 200
N/T	N/T	97.6

Ave. Diameter (in)	Ave. Height (in)	Area (in^2)	Volume (in^3)	Wet Wt (g)	Dry Wt. (g)	Total Unit Weight (lbf/ft^3)	Dry Unit Weight (lbf/ft^3)
2.489	2.487	4.867	12.11	395.2	315.4	**124.4**	**99.3**

Ave. Diameter (mm)	Ave. Height (mm)	Area (mm^2)	Volume (L)	Wet Wt. (Kg)	Dry Wt. (Kg)	Total Unit Weight (kN/m^3)	Dry Unit Weight (kN/m^3)
63.23	63.18	3140	0.198	0.3952	0.3154	19.54	15.59

Phase Volumes:

Solids (V_s)	**7.22**	in^3	**Specific Gravity**	**2.671**	**Measured**	Tare #	P
Voids (V_v)	**4.883**	in^3	**e - Void Ratio**	**0.676**		Tare Wt (g)	69.15
Water (V_w)	**4.881**	in^3	**η - Porosity**	**40.3%**		Wet Wt.(g)	464.28
			Degree of Saturation	**100.0%**		Dry Wt (g)	384.50
					ASTM D 2166, Moisture Content		**25.3%**
							From Trimmings

Respectfully submitted

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GEOTECHNICAL ✶ MATERIALS ✶ ENVIRONMENTAL ✶ DRILLING ✶ LANDFILLS

HYDROMETER AND MECHANICAL ANALYSIS OF SOIL BINDER, ASTM D422

PROJECT:	LHAAP - 18/24 (60274185)	**MATERIAL ORIGIN:**	Karnack, Texas
CLIENT:	AECOM	**DATE SAMPLED:**	04/11/13
CONTRACTOR:	not given	**SAMPLED BY:**	Client
ETTL JOB No. :	G 3968-13	**SAMPLE INFO. PROVIDED BY:**	Client
LOCATION/BORING:	18CPTMW-23	**TECHNICIAN:**	Owen Sanderson
SAMPLE No:	**DEPTH (ft):** 25'-26'	**START DATE:**	06/06/13
DESCRIPTION:	Dark Gray Poorly Graded Sand with silt, (SP-SM)	**FINISH DATE:**	06/09/13

Starting Masses and Sample Preparation			
Shape of Particles:	Rounded	**D 10 (mm)=**	0.0750
Hardness of Particles:	Hard	**D 15 (mm)=**	0.0992
Dispersion Device:	Device A	**D 30 (mm)=**	0.1328
Dispersion Time:	2 minutes	**D 50 (mm)=**	0.1685
Dispersion Agent:	125 mL of a 4% solution of Sodium Hexametaphosphate	**D 60 (mm)=**	0.1849
		D 85 (mm)=	0.233
		Cu =	2
Hydrometer Type:	152H	**Cc =**	1
Starting Mass of Air Dry (whole) sample (g):	372.48	**Hydroscopic M.C. of Hydrometer**	
Starting Mass of Oven Dry (whole) sample (g):	370.51		
Mass of Air Dry (hydro) Sample (g):	100.00	Tare Mass (g):	29.96
Mass of Oven Dry (hydro) Sample (g):	99.47	Tare + Wet Mass (g):	43.21
Percent Retained on No. 10 Sieve:	0.18	Tare + Dry Mass (g):	43.14
Specific Gravity:	2.578	M.C.%	0.53%

Sieve No.	Mass Retained (g)	%Retained	Grain Dia. (mm)	%Passing
Mechanical Sieve Analysis of Material Retaining on No. 10				
1-1/2"	0.00	0.0	50.0	100.0
1"	0.00	0.0	25.0	100.0
3/4"	0.00	0.0	19.0	100.0
3/8"	0.00	0.0	9.50	100.0
No 4	0.00	0.0	4.75	100.0
No 10	0.68	0.2	2.00	99.8
Mechanical Sieve Analysis of Material Retaining on No. 200				
40	0.13	0.3	0.425	99.7
60	7.29	7.5	0.250	92.5
100	62.13	62.5	0.150	37.5
140	83.38	83.9	0.106	16.1
200	89.38	89.9	0.075	10.1

Hydrometer Analysis of Material Passing No. 10 Sieve

Temperature Deg. (C)	Hydrometer Correction	Hydrometer Reading	Corrected Reading	(L)-Hydrometer Factor	(K)-Dia. Factor	(a)-SP.GR. Factor	Time (min)	Grain Dia. (mm)	% Soil Passing
22.0	5.1	13.5	8.4	15.0	0.01361	1.02	0.5	0.0746	8.6
22.0	5.1	11.0	5.9	15.5	0.01361	1.02	1	0.0536	6.1
22.0	5.1	10.8	5.7	15.5	0.01361	1.02	2	0.0379	5.8
22.0	5.1	10.5	5.4	15.5	0.01361	1.02	5	0.0240	5.6
22.0	5.1	10.3	5.2	15.5	0.01361	1.02	15	0.0138	5.3
22.0	5.1	10.0	4.9	15.6	0.01361	1.02	30	0.0098	5.1
22.0	5.1	9.8	4.7	15.6	0.01361	1.02	60	0.0069	4.8
22.0	5.1	9.5	4.4	15.6	0.01361	1.02	120	0.0049	4.5
22.0	5.1	9.0	3.9	15.8	0.01361	1.02	240	0.0035	4.0
22.5	4.9	8.0	3.1	15.8	0.01345	1.02	1440	0.0014	3.2

Measured Specific Gravity of Material Passing No. 10 Sieve, ASTM D 854 Method B

Air Dry M_S (grams)	Bottle #	T_t (deg. C)	M_P (grams)	V_P (mL)	$\rho_{w,t}$ (g/mL)	Oven Dry M_S (grams)	$M_{pw,t}$ (grams)	$M_{pws,t}$ (grams)	SG_t
100.00	8	25.30	183.15	499.28	0.9970	99.47	680.92	741.81	**2.578**

Per ASTM		
% Gravel =	0.0	**Gravel** > 4.75 (mm)
% Sand =	89.9	4.75 (mm) < **SAND** > .075 (mm)
% Silt =	6.7	.075 (mm) < **SILT** > .002 (mm)
%Clay =	3.4	**CLAY** < .002 (mm)

Atterberg Limits		
L.L.	P.L.	P.I.
N/T	N/T	N/T

Notes:

Respectfully Submitted

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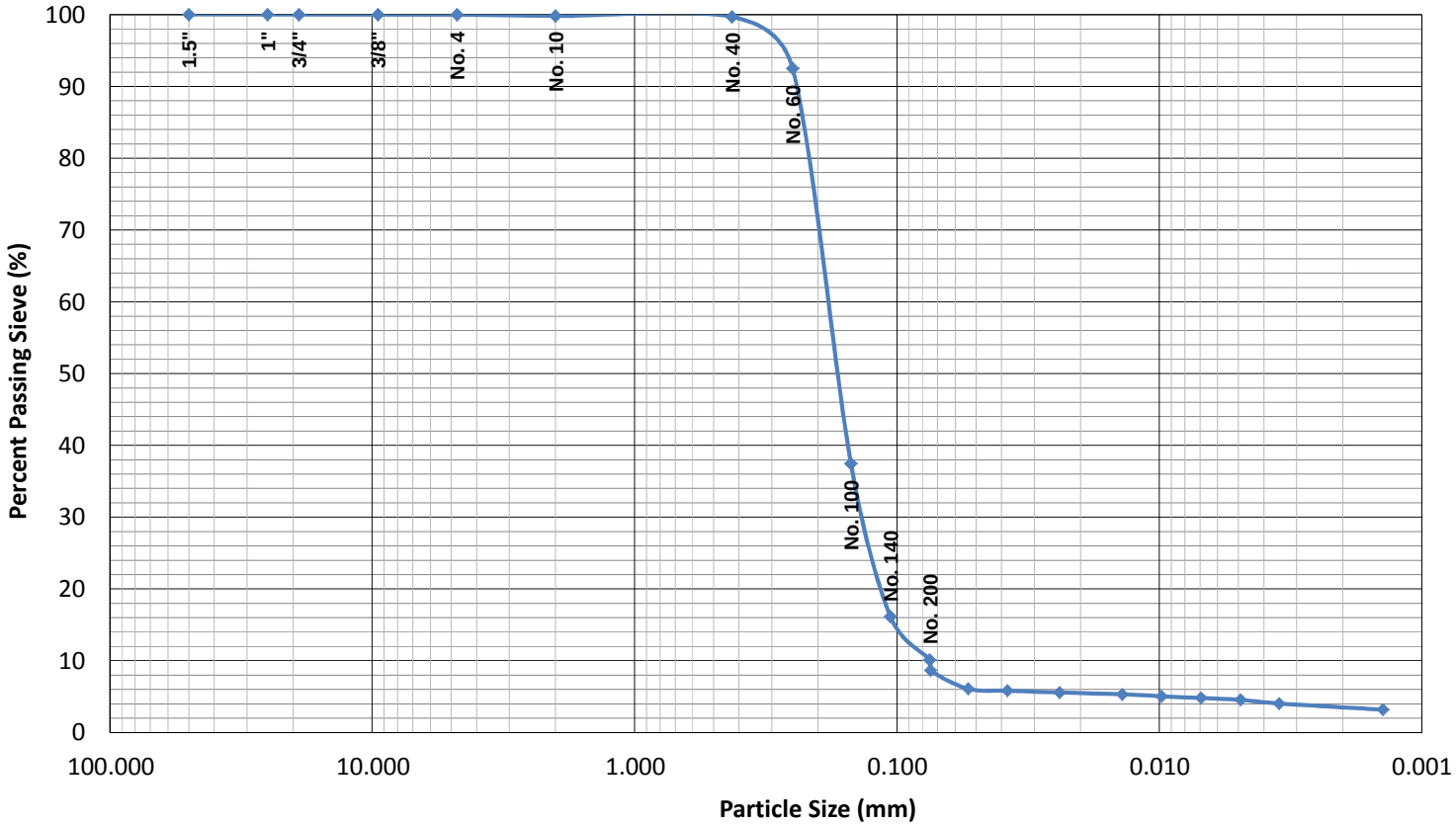
GEOTECHNICAL ✶ MATERIALS ✶ ENVIRONMENTAL ✶ DRILLING ✶ LANDFILLS

ASTM D 422, Particle Size Distribution Curve By Hydrometer



Sieve No.	Dia. (mm)	% Finer
1.5"	50.0	100.0
1"	25.0	100.0
3/4"	19.0	100.0
3/8"	9.50	100.0
No. 4	4.75	100.0
No. 10	2.00	99.8
No. 40	0.425	99.7
No. 60	0.250	92.5
No. 100	0.150	37.5
No. 140	0.106	16.1
No. 200	0.075	10.1
Hydrometer Analysis	0.0746	8.6
	0.0536	6.1
	0.0379	5.8
	0.0240	5.6
	0.0138	5.3
	0.0098	5.1
	0.0069	4.8
	0.0049	4.5
	0.0035	4.0
	0.0014	3.2

L.L.	N/T
P.L.	N/T
P.I.	N/T
% Sand	89.9
% Silt	6.7
% Clay	3.4
D_{85}	0.2332
D_{60}	0.1849
D_{50}	0.1685
D_{30}	0.1328
D_{15}	0.0992
D_{10}	0.0750
C_u	2
C_c	1

		Location	Sample No.	Depth (ft)	Description and Classification	Specific Gravity	Technician
PROJECT NAME:	LHAAP - 18/24 (60274185)						
Client:	AECOM				Dark Gray Poorly Graded Sand with silt, (SP-SM)		Owen Sanderson
ETTL Inc. Job #	G 3968-13	18CPTMW-23		25'-26'		2.578	Date: 06/09/13

ETTL Engineers & Consultants Inc.

GEOTECHNICAL ✶ MATERIALS ✶ ENVIRONMENTAL ✶ DRILLING ✶ LANDFILLS

Laboratory Determination of Density (Unit Weight) of Soil Specimens, ASTM D 7263

Method B, Direct Measurement

Project Information

Project: LHAAP - 18/24 (60274185)
Client/Arch./Engr.: AECOM
Contractor: not given
Job No.: G 3968-13

Sample Information

Boring No: **18CPTMW-23**
Sample No.: _____ Depth: **25'-26'** **ft** Date Sampled: 4/11/2013
Material Origin: Karnack, Texas
Sampling Info. provided By: Client
Material Description: Dark Gray Poorly Graded Sand with silt, (SP-SM)
Sampled By: Client
Technician: Owen Sanderson Test Date: 6/6/2013
Sampel Type: Undisturbed, Shelby Tube Sample

Test Data

Minimum of 3 Readings

	Diameter (in)	Height (in)	
Diameter (top)	2.500	1.000	Height 1
Diameter (Middle)	2.500	1.000	Height 2
Diameter (bottom)	2.500	1.000	Height 3

LL	PL	Passing No. 200
N/T	N/T	10.1

Ave. Diameter (in)	Ave. Height (in)	Area (in^2)	Volume (in^3)	Wet Wt (g)	Dry Wt. (g)	Total Unit Weight (lbf/ft^3)	Dry Unit Weight (lbf/ft^3)
2.500	1.000	4.909	4.91	153.4	123.1	**119.1**	**95.5**

Ave. Diameter (mm)	Ave. Height (mm)	Area (mm^2)	Volume (L)	Wet Wt. (Kg)	Dry Wt. (Kg)	Total Unit Weight (kN/m^3)	Dry Unit Weight (kN/m^3)
63.50	25.40	3167	0.080	0.1534	0.1231	18.70	15.01

Phase Volumes:

Solids (V_s)	**2.92**	in^3	**Specific Gravity**	**2.578**	**Measured**	Tare #	S
Voids (V_v)	**1.989**	in^3	**e - Void Ratio**	**0.681**		Tare Wt (g)	71.16
Water (V_w)	**1.856**	in^3	**η - Porosity**	**40.5%**		Wet Wt.(g)	232.2
			Degree of Saturation	**93.3%**		Dry Wt (g)	200.35
						ASTM D 2166, Moisture Content	**24.7%**
							From Trimmings

Respectfully submitted

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Employee Owned Integrity Caring Continual Improvement

Report

Printed 06/19/2013 Page 1 of 1

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Report To

Owen Sanderson
ETTL Engineers & Consultants I
1717 East Erwin St
Tyler, TX 75702

Account
ETLO -A

Project
614414

LHAAP - 18/24 (60244185)

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Report Name	Description	Pages
614414_r03_03_ProjectResults	Ana-Lab Project P:614414 C:ETLO Project Results	6
614414_r10_05_ProjectQC	Ana-Lab Project P:614414 C:ETLO Project Quality Control Groups	1
614414_r99_09_CoC__1_of_1	Ana-Lab CoC ETLO 614414_1_of_1	1
	Total Pages:	8

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Employee Owned Integrity Caring Continual Improvement

Results

Printed: 06/19/2013

Client: ETLO Project: 614414

LHAAP - 18/24 (60244185)

Account	Project
ETLO-A	614414

Report To

Owen Sanderson
ETTL Engineers & Consultants I
1717 East Erwin St
Tyler, TX 75702

Results

Parameter	Results	Units	RL	Flags	CAS	Bottle
1214753 18CPTMW-01DW 16'-17'					Received:	06/06/2013
Solid	Collected by: Client	Affiliation:	ETTL Engineers & Con	02/27/2013	13:15:00	
Prepared:	525445	06/17/2013	12:00:00			
Schollenberger		Analyzed:	MVT 06/17/2013	12:00:00	QCgroup	525445
Organic Carbon	1540 *	mg/Kg	233	H		01
* Dry Weight Basis						
Prepared:	524869	06/12/2013	15:15:00			
SM2540 G, 20th /MOD		Analyzed:	EJK 06/12/2013	15:15:00	QCgroup	524869
N Total Solids for Dry Wt	85.9	%	0.010			01
1214754 18CPTMW-01DW 37'-37.5'					Received:	06/06/2013
Solid	Collected by: Client	Affiliation:	ETTL Engineers & Con	02/27/2013	14:20:00	
Prepared:	525445	06/17/2013	12:00:00			
Schollenberger		Analyzed:	MVT 06/17/2013	12:00:00	QCgroup	525445
Organic Carbon	1620 *	mg/Kg	237	H		01
* Dry Weight Basis						
Prepared:	524869	06/12/2013	15:15:00			
SM2540 G, 20th /MOD		Analyzed:	EJK 06/12/2013	15:15:00	QCgroup	524869
N Total Solids for Dry Wt	84.5	%	0.010			01
1214755 18CPTMW-01DW 40.5'-41'					Received:	06/06/2013
Solid	Collected by: Client	Affiliation:	ETTL Engineers & Con	02/27/2013	14:30:00	
Prepared:	525445	06/17/2013	12:00:00			
Schollenberger		Analyzed:	MVT 06/17/2013	12:00:00	QCgroup	525445
Organic Carbon	2840 *	mg/Kg	253	H		01
* Dry Weight Basis						
Prepared:	524869	06/12/2013	15:15:00			
SM2540 G, 20th /MOD		Analyzed:	EJK 06/12/2013	15:15:00	QCgroup	524869
N Total Solids for Dry Wt	79.0	%	0.010			01
1214756 18CPTMW-10DW 16'-17'					Received:	06/06/2013
Solid	Collected by: Client	Affiliation:	ETTL Engineers & Con	03/04/2013	16:30:00	

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Results

Printed: 06/19/2013

Client: ETLO Project: 614414

Results

Parameter	Results	Units	RL	Flags	CAS	Bottle

1214756 **18CPTMW-10DW 16'-17'** Received: 06/06/2013

Solid Collected by: Client Affiliation: ETTL Engineers & Con 03/04/2013 16:30:00

Prepared: 525445 06/17/2013 12:00:00
Schollenberger Analyzed: MVT 06/17/2013 12:00:00 QCgroup 525445

Organic Carbon	1480 *	mg/Kg	246	H		01

* Dry Weight Basis

Prepared: 524869 06/12/2013 15:15:00
SM2540 G, 20th /MOD Analyzed: EJK 06/12/2013 15:15:00 QCgroup 524869

N Total Solids for Dry Wt	81.2	%	0.010			01

1214757 **18CPTMW-10DW 18'-19'** Received: 06/06/2013

Solid Collected by: Client Affiliation: ETTL Engineers & Con 03/04/2013 16:30:00

Prepared: 525445 06/17/2013 12:00:00
Schollenberger Analyzed: MVT 06/17/2013 12:00:00 QCgroup 525445

Organic Carbon	813 *	mg/Kg	254	H		01

* Dry Weight Basis

Prepared: 524869 06/12/2013 15:15:00
SM2540 G, 20th /MOD Analyzed: EJK 06/12/2013 15:15:00 QCgroup 524869

N Total Solids for Dry Wt	78.8	%	0.010			01

1214758 **18CPTMW-08SW 12.5'-13'** Received: 06/06/2013

Solid Collected by: Client Affiliation: ETTL Engineers & Con 02/28/2013 16:35:00

Prepared: 525445 06/17/2013 12:00:00
Schollenberger Analyzed: MVT 06/17/2013 12:00:00 QCgroup 525445

Organic Carbon	464 *	mg/Kg	233	H		01

* Dry Weight Basis

Prepared: 524869 06/12/2013 15:15:00
SM2540 G, 20th /MOD Analyzed: EJK 06/12/2013 15:15:00 QCgroup 524869

N Total Solids for Dry Wt	86.0	%	0.010			01

1214759 **18CPTMW-08SW 22'-23'** Received: 06/06/2013

Solid Collected by: Client Affiliation: ETTL Engineers & Con 03/01/2013 08:50:00

Prepared: 525445 06/17/2013 12:00:00
Schollenberger Analyzed: MVT 06/17/2013 12:00:00 QCgroup 525445

Organic Carbon	2190 *	mg/Kg	250	H		01

* Dry Weight Basis

Prepared: 524869 06/12/2013 15:15:00
SM2540 G, 20th /MOD Analyzed: EJK 06/12/2013 15:15:00 QCgroup 524869

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Employee Owned Integrity Caring Continual Improvement

Results

Printed: 06/19/2013

Client: ETLO *Project:* 614414

Results

Parameter	Results	Units	RL	Flags	CAS	Bottle

1214759 **18CPTMW-08SW 22'-23'** *Received:* 06/06/2013

Solid *Collected by:* Client *Affiliation:* ETTL Engineers & Con 03/01/2013 08:50:00

SM2540 G, 20th /MOD *Analyzed:* *EJK* *06/12/2013* *15:15:00* *QCgroup* *524869*

N	**Total Solids for Dry Wt**	**79.9**	**%**	0.010	01

1214760 **18CPTMW-08SW 32'-32.5'** *Received:* 06/06/2013

Solid *Collected by:* Client *Affiliation:* ETTL Engineers & Con 03/01/2013 08:50:00

Prepared: ***525445*** *06/17/2013* *12:00:00*

Schollenberger *Analyzed:* *MVT* *06/17/2013* *12:00:00* *QCgroup* *525445*

	Organic Carbon	**1940 ***	**mg/Kg**	247 H	01

* Dry Weight Basis

Prepared: ***524869*** *06/12/2013* *15:15:00*

SM2540 G, 20th /MOD *Analyzed:* *EJK* *06/12/2013* *15:15:00* *QCgroup* *524869*

N	**Total Solids for Dry Wt**	**80.9**	**%**	0.010	01

1214761 **18CPTMW-23 25'-26'** *Received:* 06/06/2013

Solid *Collected by:* Client *Affiliation:* ETTL Engineers & Con 04/11/2013 18:20:00

Prepared: ***525445*** *06/17/2013* *12:00:00*

Schollenberger *Analyzed:* *MVT* *06/17/2013* *12:00:00* *QCgroup* *525445*

	Organic Carbon	**2960 ***	**mg/Kg**	245 H	01

* Dry Weight Basis

Prepared: ***524869*** *06/12/2013* *15:15:00*

SM2540 G, 20th /MOD *Analyzed:* *EJK* *06/12/2013* *15:15:00* *QCgroup* *524869*

N	**Total Solids for Dry Wt**	**81.5**	**%**	0.010	01

Sample Preparation

1214753 **18CPTMW-01DW 16'-17'** *Received:* 06/06/2013

Prepared: *06/06/2013* *00:00:00*

Analyzed: *KAT* *06/06/2013* *00:00:00* *QCgroup*

Bottle Temperature on Receipt	**9**	**degrees**	01

Prepared: *06/18/2013* *14:33:22*

Calculation *Analyzed:* *CAL* *06/18/2013* *14:33:22* *QCgroup*

As Received to Dry Weight Basis **Calculated**

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663
Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com

Employee Owned Integrity Caring Continual Improvement

Results

Printed: 06/19/2013

Client: ETLO *Project:* 614414

Sample Preparation

1214754 **18CPTMW-01DW 37'-37.5'** *Received:* 06/06/2013

	Prepared:		*06/06/2013*	*00:00:00*		
			Analyzed: KAT	*06/06/2013*	*00:00:00*	*QCgroup*
Bottle Temperature on Receipt	**11**	**degrees**				01
	Prepared:		*06/18/2013*	*14:33:22*		
Calculation			*Analyzed: CAL*	*06/18/2013*	*14:33:22*	*QCgroup*
As Received to Dry Weight Basis	**Calculated**					

1214755 **18CPTMW-01DW 40.5'-41'** *Received:* 06/06/2013

	Prepared:		*06/06/2013*	*00:00:00*		
			Analyzed: KAT	*06/06/2013*	*00:00:00*	*QCgroup*
Bottle Temperature on Receipt	**5**	**degrees**				01
	Prepared:		*06/18/2013*	*14:33:22*		
Calculation			*Analyzed: CAL*	*06/18/2013*	*14:33:22*	*QCgroup*
As Received to Dry Weight Basis	**Calculated**					

1214756 **18CPTMW-10DW 16'-17'** *Received:* 06/06/2013

	Prepared:		*06/06/2013*	*00:00:00*		
			Analyzed: KAT	*06/06/2013*	*00:00:00*	*QCgroup*
Bottle Temperature on Receipt	**4**	**degrees**				01
	Prepared:		*06/18/2013*	*14:33:22*		
Calculation			*Analyzed: CAL*	*06/18/2013*	*14:33:22*	*QCgroup*
As Received to Dry Weight Basis	**Calculated**					

1214757 **18CPTMW-10DW 18'-19'** *Received:* 06/06/2013

	Prepared:		*06/06/2013*	*00:00:00*		
			Analyzed: KAT	*06/06/2013*	*00:00:00*	*QCgroup*
Bottle Temperature on Receipt	**3**	**degrees**				01
	Prepared:		*06/18/2013*	*14:33:22*		
Calculation			*Analyzed: CAL*	*06/18/2013*	*14:33:22*	*QCgroup*
As Received to Dry Weight Basis	**Calculated**					

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Results

Printed: 06/19/2013

Client: ETLO *Project:* 614414

Sample Preparation

1214758 **18CPTMW-08SW 12.5'-13'** *Received:* 06/06/2013

	Prepared:		*06/06/2013*		*00:00:00*		
			Analyzed:	*KAT*	*06/06/2013*	*00:00:00*	*QCgroup*
z	**Bottle pH**	**<2**	**SU**				01
	Bottle Temperature on Receipt	**5**	**degrees**				01
	Prepared:		*06/18/2013*		*14:33:22*		
Calculation			*Analyzed:*	*CAL*	*06/18/2013*	*14:33:22*	*QCgroup*
	As Received to Dry Weight Basis	**Calculated**					

1214759 **18CPTMW-08SW 22'-23'** *Received:* 06/06/2013

	Prepared:		*06/06/2013*		*00:00:00*		
			Analyzed:	*KAT*	*06/06/2013*	*00:00:00*	*QCgroup*
	Bottle Temperature on Receipt	**6**	**degrees**				01
	Prepared:		*06/18/2013*		*14:33:22*		
Calculation			*Analyzed:*	*CAL*	*06/18/2013*	*14:33:22*	*QCgroup*
	As Received to Dry Weight Basis	**Calculated**					

1214760 **18CPTMW-08SW 32'-32.5'** *Received:* 06/06/2013

	Prepared:		*06/06/2013*		*00:00:00*		
			Analyzed:	*KAT*	*06/06/2013*	*00:00:00*	*QCgroup*
	Bottle Temperature on Receipt	**3**	**degrees**				01
	Prepared:		*06/18/2013*		*14:33:22*		
Calculation			*Analyzed:*	*CAL*	*06/18/2013*	*14:33:22*	*QCgroup*
	As Received to Dry Weight Basis	**Calculated**					

1214761 **18CPTMW-23 25'-26'** *Received:* 06/06/2013

	Prepared:		*06/06/2013*		*00:00:00*		
			Analyzed:	*KAT*	*06/06/2013*	*00:00:00*	*QCgroup*
	Bottle Temperature on Receipt	**4**	**degrees**				01
	Prepared:		*06/18/2013*		*14:33:22*		
Calculation			*Analyzed:*	*CAL*	*06/18/2013*	*14:33:22*	*QCgroup*
	As Received to Dry Weight Basis	**Calculated**					

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Employee Owned Integrity Caring Continual Improvement

Results

Printed: 06/19/2013

Client: ETLO *Project:* 614414

Qualifiers:

H - Sample started outside recommended holding time

We report results on an 'As Received' or wet basis unless marked 'Dry Weight'. Unless otherwise noted, testing was performed at Ana-lab's corporate laboratory that holds the following Federal and State certificates: Texas Department of Health Lead Firm Certificate 2110076, US Department of Agriculture Soil Import Permit S-37592, Texas Commisson on Environmental Quality Drinking Water Laboratory Certificate TX219, Texas Commission on Environmental Quality NELAP T104704201, Oklahoma Department of Environmental Quality Drinking Water Certification Lab ID# D9913, EPA Lab Number TX00063, USEPA Approved Perchlorate Testing Lab, Oklahoma Department of Environmental Quality Laboratory Certificate 8125, Arkansas Department of Environmental Quality Certification #03-070-0, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) # LA030020, US Department of Energy Approved, State of Kansas Department of Health and Environment Waste Water and Solid/Hazardous Waste Cert. E-10365. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of Ana-Lab Corp. Unless otherwise specified, these test results meet the requirements of NELAC.
RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number.

C. H. Whiteside, Ph.D., President

Ana-Lab Corp. P.O. Box 9000 Kilgore, TX 75663
Phone 903/984-0551 FAX 903/984-5914 e-Mail corp@ana-lab.com LELAP-accredited #02008

Employee Owned Integrity Caring Continual Improvement

Quality Control

Printed 06/19/2013

LHAAP - 18/24 (60244185)

Account	Project
ETLO -A	614414

Report To

Owen Sanderson
ETTL Engineers & Consultants I
1717 East Erwin St
Tyler, TX 75702

524869 W Solid — SM2540 G, 20th /MOD

ControlBlk

Parameter	PrepSet	Reading	MDL	MQL	Units			File
Total Solids for Dry Wt	524869	-0.0002			grams			113518895

Duplicate

Parameter	Sample	Type	Result	Unknown	Unit	RPD	Limit%
Total Solids for Dry Wt	1214659	Duplicate	77.6	77.9	%	0.386	20.0
Total Solids for Dry Wt	1214660	Duplicate	74.3	73.5	%	1.08	20.0
Total Solids for Dry Wt	1214661	Duplicate	60.2	62.6	%	3.91	20.0

525445 W Solid — Schollenberger

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units			File
Organic Carbon	525445	ND	200	200	mg/Kg			113532698

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File	Out
Organic Carbon	525445	309	300	mg/Kg	103	70.0 - 130	113532699	

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Organic Carbon	525445	309	261	300	70.0 - 130	103	87.0	mg/Kg	16.8	30.0

MS

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Organic Carbon	1214753	10800	0	1320	10100	70.0 - 130	93.9		mg/Kg		30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Organic Carbon	1214753	10800	9000	1320	8860	70.0 - 130	93.9	86.7	mg/Kg	7.97	30.0

RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

ANA-LAB CORP.
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Chain of Custody

Panhandle 806.355.3556 | Oklahoma 405.292.6630 | North TX 972-620-8900 | Central TX 512.821.0045
Rio Grand Valley 956.831.6437 | Louisiana 318.219.9300 | Gulf Coast 281.333.9414 | Alabama 256.461-0500

Report to: Owen Sanderson
Company name: ETTL Engineers + Consultants
Address: 1717 E. Erwin St.
City: Tyler State: TX Zip: 75702
Phone: 903-595-4421 Fax:

Project-name/location: LHAAP - 18/24 (60274185)
Billing Address (if different):
sanderson@ettline.com
City State Zip
Phone Fax

Sampler Signature: [signature] Printed Name: Owen Sanderson Affiliation: ETTL PO Number:

Analysis Requested: T.O.C. SW20 5310 B/C

Lab Number Do Not Use	Field Identification	Date	Time	Matrix	# of Containers	Notes	T.O.C. SW20 5310 B/C
214753	18GPTMW-01DW 16-17'	2/27/13	1315		1		X
754	" " 37-37.5'	" "	1420		1		X
755	" " 40.5-41'	" "	1430		1		X
756	18GPTMW-10DW 16-17'	3/4/13	1630		1		X
757	" " 18-19'	" "	" "		1		X
758	18GPTMW-08SW 12.5-13'	2/28/13	1635		1		X
759	" " 22-23'	3/1/13	850		1		X
760	" " 32-32.5'	3/1/13	850		1		X
761	18GPTMW-23 25-26'	4/11/13	1820		1		X

Date	Time	Relinquished by: Printed Name	Signature	Affiliation	Received by: Printed Name	Signature	Affiliation
6/6	12:00	Owen Sanderson	[signature]	ETTL	Barry Dagnel	[signature]	AnaLAB
6/6/13	13:30	Barry Dagnel	[signature]	AnaLAB	Christi Parker Ana-Lab		

☐ Wastewater ☐ Drinking Water ☐ SW846
Samples contain ☐ HF ☐ CN ☐ S= ☐ other##

Samples Received on Ice? ☑ Yes ☐ No Method of Shipment ☐ Bus ☐ FedEX ☐ Lone Star ☐ UPS ☑ Hand delivered ☐ Airborne ☐ other ##comments
Cooler/Sample Secure? ☑ Yes ☐ No Tracking or Shipping Number
Requested TAT ☒ Routine ☐ 3 day ☐ 2 Day ☐ 24 Hr. ☐ 2-8 Hour ☐ Samples contain HF CN

005057 ☐ CF
005112 ☑ CF -0.206 <1°C
002688 ☐ CF

Ana-Lab personnel collect samples as specified by Ana-Lab SOP #000323.

Sample analysis will be provided according to Ana-Lab's Standard Terms and Conditions of Agreement, available upon request and at www.ana-lab.com. Any other terms proposed by Client are deemed material alterations and are rejected unless expressly agreed to in writing by Ana-Lab.