LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 7 of 16

2011

Bate Stamp Numbers
00104303 – 00105297

Prepared for

Department of the Army
Longhorn Army Ammunition Plant

1976 – 2011

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

VOLUME 7 of 16

2011

A. Title: Report – Final Feasibility Study LHAAP-47, Plant 3 Area, Group 4, Longhorn Army Ammunition Plant, Karnack, Texas
Author(s): Shaw Environmental, Inc., Houston, Texas
Recipient: All Stakeholders
Date: July 27, 2011
Bate Stamp: 00104303 - 00105297

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47WW13-100804	E300	NONE	N	0	1	CHLORIDE	9.37	mg/L		Y	Y					L10080104-02	20:20
						FLUORIDE	0.230	mg/L		Y	Y					L10080104-02	20:20
						NITRATE	0.119	mg/L	J	Y	Y		J		✓	L10080104-02	20:20
						NITRITE	0.100	mg/L	U	N	Y		U			L10080104-02	20:20
						SULFATE	35.8	mg/L		Y	Y				✓	L10080104-02	20:20
	E310.2	NONE	N	0	1	ALKALINITY, TOTAL (AS CACO3)	56.5	mg/L		Y	Y		JH EB		✓	L10080104-02	09:37
	E415.1	NONE	N	0	2	TOTAL ORGANIC CARBON	11.9	mg/L		Y	Y					L10080104-02	16:53
	RSK175	SW5021	N	0	1	ETHANE	1.00	ug/L	U	N	Y		U			L10080104-02	19:23
						ETHENE	27.4	ug/L		Y	Y					L10080104-02	19:23
						METHANE	271	ug/L		Y	Y					L10080104-02	19:23
	SW6010B	TOTREC	N	0	1	ALUMINUM, TOTAL	13.4	mg/L		Y	Y				✓	L10080104-02	21:42
						BERYLLIUM, TOTAL	0.000879	mg/L	J	Y	Y		J			L10080104-02	21:42
						CALCIUM, TOTAL	3.12	mg/L		Y	Y					L10080104-02	21:42
						COBALT, TOTAL	0.0147	mg/L		Y	Y					L10080104-02	21:42
						IRON, TOTAL	11.4	mg/L		Y	Y					L10080104-02	21:42
						MAGNESIUM, TOTAL	1.92	mg/L		Y	Y					L10080104-02	21:42
						POTASSIUM, TOTAL	1.17	mg/L		Y	Y					L10080104-02	21:42
						SODIUM, TOTAL	27.6	mg/L		Y	Y					L10080104-02	21:42
						VANADIUM, TOTAL	0.0186	mg/L		Y	Y					L10080104-02	21:42
						ZINC, TOTAL	0.0317	mg/L		Y	Y					L10080104-02	21:42
	SW6020	SW3015	N	0	5	ANTIMONY, TOTAL	0.00426	mg/L	J	Y	Y		J		✓	L10080104-02	19:52
						ARSENIC, TOTAL	0.113	mg/L		Y	Y					L10080104-02	19:52
						BARIUM, TOTAL	0.119	mg/L		Y	Y					L10080104-02	19:52
						CADMIUM, TOTAL	0.000625	mg/L	U	N	Y		U			L10080104-02	19:52
						CHROMIUM, TOTAL	0.0387	mg/L		Y	Y					L10080104-02	19:52
						COPPER, TOTAL	0.0178	mg/L		Y	Y					L10080104-02	19:52
						LEAD, TOTAL	0.00471	mg/L		Y	Y					L10080104-02	19:52
						MANGANESE, TOTAL	0.230	mg/L		Y	Y					L10080104-02	19:52
						NICKEL, TOTAL	0.0284	mg/L		Y	Y					L10080104-02	19:52
						SELENIUM, TOTAL	0.00340	mg/L	J	Y	Y		J		✓	L10080104-02	19:52
						SILVER, TOTAL	0.00125	mg/L	U	N	Y		U			L10080104-02	19:52
						THALLIUM, TOTAL	0.000250	mg/L	U	N	Y		U			L10080104-02	19:52
	SW6850	NONE	N	0	1	PERCHLORATE	0.100	ug/L	U	N	Y		U			L10080104-02	05:21
	SW7470A	METHOD	N	0	1	MERCURY	0.000100	mg/L	U	N	Y		U			L10080104-02	11:17
	SW8260B	SW5030	N	0	5	1,1,1,2-TETRACHLOROETHANE	1.25	ug/L	U	N	Y		U			L10080104-02	21:02
						1,1,1-TRICHLOROETHANE	1.25	ug/L	U	N	Y		U			L10080104-02	21:02
						1,1,2,2-TETRACHLOROETHANE	1.00	ug/L	U	N	Y		U			L10080104-02	21:02
						1,1,2-TRICHLOROETHANE	1.25	ug/L	U	N	Y		U			L10080104-02	21:02
						1,1-DICHLOROETHANE	3.40	ug/L	J	Y	Y		J		✓	L10080104-02	21:02
						1,1-DICHLOROETHENE	5.51	ug/L		Y	Y					L10080104-02	21:02
						1,1-DICHLOROPROPENE	1.25	ug/L	U	N	Y		U			L10080104-02	21:02
						1,2,3-TRICHLOROBENZENE	0.750	ug/L	U	N	Y		U			L10080104-02	21:02

2 KAAP-47 MNA 080410

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47WW13-100804	SW8260B	SW5030	N 0 5	1,2,3-TRICHLOROPROPANE	2.50	ug/L	U	N Y	U			L10080104-02	21:02
				1,2,4-TRICHLOROBENZENE	1.00	ug/L	U	N Y	U			L10080104-02	21:02
				1,2,4-TRIMETHYLBENZENE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				1,2-DIBROMO-3-CHLOROPROPANE	5.00	ug/L	U	N Y	U			L10080104-02	21:02
				1,2-DIBROMOETHANE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				1,2-DICHLOROBENZENE	0.625	ug/L	U	N Y	U			L10080104-02	21:02
				1,2-DICHLOROETHANE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				1,2-DICHLOROPROPANE	1.00	ug/L	U	N Y	U			L10080104-02	21:02
				1,3,5-TRIMETHYLBENZENE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				1,3-DICHLOROBENZENE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				1,3-DICHLOROPROPANE	1.00	ug/L	U	N Y	U			L10080104-02	21:02
				1,4-DICHLOROBENZENE	0.625	ug/L	U	N Y	U			L10080104-02	21:02
				2,2-DICHLOROPROPANE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				2-BUTANONE	12.5	ug/L	U	N Y	U			L10080104-02	21:02
				2-CHLOROETHYL VINYL ETHER	10.0	ug/L	U	N Y	U			L10080104-02	21:02
				2-CHLOROTOLUENE	0.625	ug/L	U	N Y	U			L10080104-02	21:02
				2-HEXANONE	12.5	ug/L	U	N Y	U			L10080104-02	21:02
				4-CHLOROTOLUENE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				4-METHYL-2-PENTANONE	12.5	ug/L	U	N Y	U			L10080104-02	21:02
				ACETONE	12.5	ug/L	U	N Y	U			L10080104-02	21:02
				BENZENE	0.625	ug/L	U	N Y	U			L10080104-02	21:02
				BROMOBENZENE	0.625	ug/L	U	N Y	U			L10080104-02	21:02
				BROMOCHLOROMETHANE	1.00	ug/L	U	N Y	U			L10080104-02	21:02
				BROMODICHLOROMETHANE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				BROMOFORM	2.50	ug/L	U	N Y	U			L10080104-02	21:02
				BROMOMETHANE	2.50	ug/L	U	N Y	U			L10080104-02	21:02
				CARBON DISULFIDE	20.4	ug/L		Y Y				L10080104-02	21:02
				CARBON TETRACHLORIDE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				CHLOROBENZENE	0.625	ug/L	U	N Y	U			L10080104-02	21:02
				CHLORODIBROMOMETHANE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				CHLOROETHANE	2.50	ug/L	U	N Y	U			L10080104-02	21:02
				CHLOROFORM	0.625	ug/L	U	N Y	U			L10080104-02	21:02
				CHLOROMETHANE	2.50	ug/L	U	N Y	U			L10080104-02	21:02
				CIS-1,2-DICHLOROETHENE	1620	ug/L	E	Y N	R			L10080104-02	21:02
				CIS-1,3-DICHLOROPROPENE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				DIBROMOMETHANE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				DICHLORODIFLUOROMETHANE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				ETHYLBENZENE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				HEXACHLOROBUTADIENE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				ISOPROPYLBENZENE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				M-,P-XYLENE	2.50	ug/L	U	N Y	U			L10080104-02	21:02
				METHYLENE CHLORIDE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				N-BUTYLBENZENE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				N-PROPYLBENZENE	0.625	ug/L	U	N Y	U			L10080104-02	21:02

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Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47WW13-100804	SW8260B	SW5030	N 0 5	NAPHTHALENE	1.00	ug/L	U	N Y	U			L10080104-02	21:02
				O-XYLENE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				P-ISOPROPYLTOLUENE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				SEC-BUTYLBENZENE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				STYRENE	0.625	ug/L	U	N Y	U			L10080104-02	21:02
				TERT-BUTYLBENZENE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				TETRACHLOROETHENE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				TOLUENE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				TRANS-1,2-DICHLOROETHENE	18.8	ug/L		Y Y				L10080104-02	21:02
				TRANS-1,3-DICHLOROPROPENE	2.50	ug/L	U	N Y	U			L10080104-02	21:02
				TRICHLOROETHENE	647	ug/L		Y Y				L10080104-02	21:02
				TRICHLOROFLUOROMETHANE	1.25	ug/L	U	N Y	U			L10080104-02	21:02
				VINYL ACETATE	12.5	ug/L	U	N Y	U			L10080104-02	21:02
				VINYL CHLORIDE	249	ug/L		Y Y				L10080104-02	21:02
	SW8260B	SW5030	N 1 10	1,1,1,2-TETRACHLOROETHANE	2.50	ug/L	U	N N	R			L10080104-02	11:16
				1,1,1-TRICHLOROETHANE	2.50	ug/L	U	N N	R			L10080104-02	11:16
				1,1,2,2-TETRACHLOROETHANE	2.00	ug/L	U	N N	R			L10080104-02	11:16
				1,1,2-TRICHLOROETHANE	2.50	ug/L	U	N N	R			L10080104-02	11:16
				1,1-DICHLOROETHANE	3.70	ug/L	J	Y N	R			L10080104-02	11:16
				1,1-DICHLOROETHENE	5.61	ug/L	J	Y N	R			L10080104-02	11:16
				1,1-DICHLOROPROPENE	2.50	ug/L	U	N N	R			L10080104-02	11:16
				1,2,3-TRICHLOROBENZENE	1.50	ug/L	U	N N	R			L10080104-02	11:16
				1,2,3-TRICHLOROPROPANE	5.00	ug/L	U	N N	R			L10080104-02	11:16
				1,2,4-TRICHLOROBENZENE	2.00	ug/L	U	N N	R			L10080104-02	11:16
				1,2,4-TRIMETHYLBENZENE	2.50	ug/L	U	N N	R			L10080104-02	11:16
				1,2-DIBROMO-3-CHLOROPROPANE	10.0	ug/L	U	N N	R			L10080104-02	11:16
				1,2-DIBROMOETHANE	2.50	ug/L	U	N N	R			L10080104-02	11:16
				1,2-DICHLOROBENZENE	1.25	ug/L	U	N N	R			L10080104-02	11:16
				1,2-DICHLOROETHANE	2.50	ug/L	U	N N	R			L10080104-02	11:16
				1,2-DICHLOROPROPANE	2.00	ug/L	U	N N	R			L10080104-02	11:16
				1,3,5-TRIMETHYLBENZENE	2.50	ug/L	U	N N	R			L10080104-02	11:16
				1,3-DICHLOROBENZENE	2.50	ug/L	U	N N	R			L10080104-02	11:16
				1,3-DICHLOROPROPANE	2.00	ug/L	U	N N	R			L10080104-02	11:16
				1,4-DICHLOROBENZENE	1.25	ug/L	U	N N	R			L10080104-02	11:16
				2,2-DICHLOROPROPANE	2.50	ug/L	U	N N	R			L10080104-02	11:16
				2-BUTANONE	25.0	ug/L	U	N N	R			L10080104-02	11:16
				2-CHLOROETHYL VINYL ETHER	20.0	ug/L	U	N N	R			L10080104-02	11:16
				2-CHLOROTOLUENE	1.25	ug/L	U	N N	R			L10080104-02	11:16
				2-HEXANONE	25.0	ug/L	U	N N	R			L10080104-02	11:16
				4-CHLOROTOLUENE	2.50	ug/L	U	N N	R			L10080104-02	11:16
				4-METHYL-2-PENTANONE	25.0	ug/L	U	N N	R			L10080104-02	11:16
				ACETONE	25.0	ug/L	U	N N	R			L10080104-02	11:16
				BENZENE	1.25	ug/L	U	N N	R			L10080104-02	11:16

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Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47WW13-100804	SW8260B	SW5030	N	1	10	BROMOBENZENE	1.25	ug/L	U	N	N		R			L10080104-02	11:16
						BROMOCHLOROMETHANE	2.00	ug/L	U	N	N		R			L10080104-02	11:16
						BROMODICHLOROMETHANE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						BROMOFORM	5.00	ug/L	U	N	N		R			L10080104-02	11:16
						BROMOMETHANE	5.00	ug/L	U	N	N		R			L10080104-02	11:16
						CARBON DISULFIDE	5.00	ug/L	U	N	N		R			L10080104-02	11:16
						CARBON TETRACHLORIDE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						CHLOROBENZENE	1.25	ug/L	U	N	N		R			L10080104-02	11:16
						CHLORODIBROMOMETHANE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						CHLOROETHANE	5.00	ug/L	U	N	N		R			L10080104-02	11:16
						CHLOROFORM	1.25	ug/L	U	N	N		R			L10080104-02	11:16
						CHLOROMETHANE	5.00	ug/L	U	N	N		R			L10080104-02	11:16
						CIS-1,2-DICHLOROETHENE	1440	ug/L		Y	Y					L10080104-02	11:16
						CIS-1,3-DICHLOROPROPENE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						DIBROMOMETHANE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						DICHLORODIFLUOROMETHANE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						ETHYLBENZENE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						HEXACHLOROBUTADIENE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						ISOPROPYLBENZENE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						M-,P-XYLENE	5.00	ug/L	U	N	N		R			L10080104-02	11:16
						METHYLENE CHLORIDE	3.14	ug/L	J	Y	N		R			L10080104-02	11:16
						N-BUTYLBENZENE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						N-PROPYLBENZENE	1.25	ug/L	U	N	N		R			L10080104-02	11:16
						NAPHTHALENE	2.00	ug/L	U	N	N		R			L10080104-02	11:16
						O-XYLENE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						P-ISOPROPYLTOLUENE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						SEC-BUTYLBENZENE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						STYRENE	1.25	ug/L	U	N	N		R			L10080104-02	11:16
						TERT-BUTYLBENZENE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						TETRACHLOROETHENE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						TOLUENE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						TRANS-1,2-DICHLOROETHENE	20.2	ug/L		Y	N		R			L10080104-02	11:16
						TRANS-1,3-DICHLOROPROPENE	5.00	ug/L	U	N	N		R			L10080104-02	11:16
						TRICHLOROETHENE	626	ug/L		Y	N		R			L10080104-02	11:16
						TRICHLOROFLUOROMETHANE	2.50	ug/L	U	N	N		R			L10080104-02	11:16
						VINYL ACETATE	25.0	ug/L	U	N	N		R			L10080104-02	11:16
						VINYL CHLORIDE	220	ug/L		Y	N		R			L10080104-02	11:16
	SW8270C	SW3510	N	0	1	1,2,4-TRICHLOROBENZENE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						1,2-DICHLOROBENZENE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						1,3-DICHLOROBENZENE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						1,4-DICHLOROBENZENE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						2,4,5-TRICHLOROPHENOL	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						2,4,6-TRICHLOROPHENOL	2.50	ug/L	U	N	Y		U			L10080104-02	00:50

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47WW13-100804	SW8270C	SW3510	N 0 1	2,4-DICHLOROPHENOL	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				2,4-DIMETHYLPHENOL	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				2,4-DINITROPHENOL	12.5	ug/L	U	N Y	U			L10080104-02	00:50
				2,4-DINITROTOLUENE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				2,6-DINITROTOLUENE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				2-CHLORONAPHTHALENE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				2-CHLOROPHENOL	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				2-METHYLNAPHTHALENE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				2-METHYLPHENOL	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				2-NITROANILINE	12.5	ug/L	U	N Y	U			L10080104-02	00:50
				2-NITROPHENOL	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				3,3'-DICHLOROBENZIDINE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				3-,4-METHYLPHENOL	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				3-NITROANILINE	12.5	ug/L	U	N Y	U			L10080104-02	00:50
				4,6-DINITRO-2-METHYLPHENOL	12.5	ug/L	U	N Y	U			L10080104-02	00:50
				4-BROMOPHENYL-PHENYLETHER	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				4-CHLORO-3-METHYLPHENOL	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				4-CHLOROANILINE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				4-CHLOROPHENYL-PHENYL ETHER	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				4-NITROANILINE	12.5	ug/L	U	N Y	U			L10080104-02	00:50
				4-NITROPHENOL	12.5	ug/L	U	N Y	U			L10080104-02	00:50
				ACENAPHTHENE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				ACENAPHTHYLENE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				ANTHRACENE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				BENZO(A)ANTHRACENE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				BENZO(A)PYRENE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				BENZO(B)FLUORANTHENE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				BENZO(G,H,I)PERYLENE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				BENZO(K)FLUORANTHENE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				BENZOIC ACID	12.5	ug/L	U	N Y	U			L10080104-02	00:50
				BENZYL ALCOHOL	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				BIS(2-CHLOROETHOXY)METHANE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				BIS(2-CHLOROETHYL)ETHER	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				BIS(2-CHLOROISOPROPYL)ETHER	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				BIS(2-ETHYLHEXYL)PHTHALATE	37.8	ug/L		Y Y	U-EB		✓	L10080104-02	00:50
				BUTYLBENZYLPHTHALATE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				CHRYSENE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				DI-N-BUTYLPHTHALATE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				DI-N-OCTYLPHTHALATE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				DIBENZO(A,H)ANTHRACENE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				DIBENZOFURAN	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				DIETHYLPHTHALATE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				DIMETHYLPHTHALATE	2.50	ug/L	U	N Y	U			L10080104-02	00:50
				FLUORANTHENE	2.50	ug/L	U	N Y	U			L10080104-02	00:50

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47WW13-100804	SW8270C	SW3510	N	0	1	FLUORENE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						HEXACHLOROBENZENE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						HEXACHLOROBUTADIENE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						HEXACHLOROCYCLOPENTADIENE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						HEXACHLOROETHANE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						INDENO(1,2,3-CD)PYRENE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						ISOPHORONE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						N-NITROSODIPHENYLAMINE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						N-NITROSODIPROPYLAMINE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						NAPHTHALENE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						NITROBENZENE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						PENTACHLOROPHENOL	12.5	ug/L	U	N	Y		U			L10080104-02	00:50
						PHENANTHRENE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						PHENOL	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
						PYRENE	2.50	ug/L	U	N	Y		U			L10080104-02	00:50
47WW14-100804	E300	NONE	N	0	10	CHLORIDE	322	mg/L		Y	Y					L10080104-04	18:48
	E300	NONE	N	1	3	FLUORIDE	0.408	mg/L	J	Y	Y		J		✓	L10080104-04	17:34
						NITRATE	0.327	mg/L	J	Y	Y		J			L10080104-04	17:34
						NITRITE	0.300	mg/L	U	N	Y		U			L10080104-04	17:34
						SULFATE	313	mg/L		Y	Y					L10080104-04	17:34
	E310.2	NONE	N	0	2	ALKALINITY, TOTAL (AS CACO3)	322	mg/L		Y	Y					L10080104-04	11:31
	E415.1	NONE	N	0	2	TOTAL ORGANIC CARBON	8.94	mg/L		Y	Y					L10080104-04	17:38
	RSK175	SW5021	N	0	1	ETHANE	1.00	ug/L	U	N	Y		U			L10080104-04	19:48
						ETHENE	1.00	ug/L	U	N	Y		U			L10080104-04	19:48
						METHANE	53.3	ug/L		Y	Y					L10080104-04	19:48
	SW6010B	TOTREC	N	0	1	ALUMINUM, TOTAL	0.0500	mg/L	U	N	Y		U			L10080104-04	21:55
						BERYLLIUM, TOTAL	0.000500	mg/L	U	N	Y		U			L10080104-04	21:55
						CALCIUM, TOTAL	71.6	mg/L		Y	Y					L10080104-04	21:55
						COBALT, TOTAL	0.00250	mg/L	U	N	Y		U			L10080104-04	21:55
						IRON, TOTAL	0.321	mg/L		Y	Y					L10080104-04	21:55
						MAGNESIUM, TOTAL	46.9	mg/L		Y	Y					L10080104-04	21:55
						POTASSIUM, TOTAL	1.61	mg/L		Y	Y					L10080104-04	21:55
						VANADIUM, TOTAL	0.00500	mg/L	U	N	Y		U			L10080104-04	21:55
						ZINC, TOTAL	0.00500	mg/L	U	N	Y		U			L10080104-04	21:55
	SW6010B	TOTREC	N	1	10	SODIUM, TOTAL	365	mg/L		Y	Y					L10080104-04	17:48
	SW6020	SW3015	N	0	5	ANTIMONY, TOTAL	0.00125	mg/L	U	N	Y		U		✓	L10080104-04	20:06
						ARSENIC, TOTAL	0.00215	mg/L	J	Y	Y		J			L10080104-04	20:06
						BARIUM, TOTAL	0.0546	mg/L		Y	Y					L10080104-04	20:06
						CADMIUM, TOTAL	0.000625	mg/L	U	N	Y		U			L10080104-04	20:06
						CHROMIUM, TOTAL	0.0736	mg/L		Y	Y				✓	L10080104-04	20:06
						COPPER, TOTAL	0.00265	mg/L	J	Y	Y		J			L10080104-04	20:06
						LEAD, TOTAL	0.00304	mg/L		Y	Y					L10080104-04	20:06

Validation Qualifier Data Entry Verification

Longhorn Army Ammunition Pla

Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47WW14-100804	SW6020	SW3015	N	0	5	MANGANESE, TOTAL	0.112	mg/L		Y	Y					L10080104-04	20:06
						NICKEL, TOTAL	0.0370	mg/L		Y	Y					L10080104-04	20:06
						SELENIUM, TOTAL	0.00770	mg/L		Y	Y					L10080104-04	20:06
						SILVER, TOTAL	0.00125	mg/L	U	N	Y		U			L10080104-04	20:06
						THALLIUM, TOTAL	0.000250	mg/L	U	N	Y		U			L10080104-04	20:06
	SW6850	NONE	N	0	1	PERCHLORATE	0.100	ug/L	U	N	Y		U			L10080104-04	07:18
	SW7470A	METHOD	N	0	1	MERCURY	0.000100	mg/L	U	N	Y		U			L10080104-04	11:29
	SW8260B	SW5030	N	0	10	1,1,1,2-TETRACHLOROETHANE	2.50	ug/L	U	N	N		R			L10080104-04	18:18
						1,1,1-TRICHLOROETHANE	2.50	ug/L	U	N	N		R			L10080104-04	18:18
						1,1,2,2-TETRACHLOROETHANE	2.00	ug/L	U	N	N		R			L10080104-04	18:18
						1,1,2-TRICHLOROETHANE	2.50	ug/L	U	N	N		R			L10080104-04	18:18
						1,1-DICHLOROETHANE	1.25	ug/L	U	N	N		R			L10080104-04	18:18
						1,1-DICHLOROETHENE	5.00	ug/L	U	N	N		R			L10080104-04	18:18
						1,1-DICHLOROPROPENE	2.50	ug/L	U	N	N		R			L10080104-04	18:18
						1,2,3-TRICHLOROBENZENE	1.50	ug/L	U	N	N		R			L10080104-04	18:18
						1,2,3-TRICHLOROPROPANE	5.00	ug/L	U	N	N		R			L10080104-04	18:18
						1,2,4-TRICHLOROBENZENE	2.00	ug/L	U	N	N		R			L10080104-04	18:18
						1,2,4-TRIMETHYLBENZENE	2.50	ug/L	U	N	N		R			L10080104-04	18:18
						1,2-DIBROMO-3-CHLOROPROPANE	10.0	ug/L	U	N	N		R			L10080104-04	18:18
						1,2-DIBROMOETHANE	2.50	ug/L	U	N	N		R			L10080104-04	18:18
						1,2-DICHLOROBENZENE	1.25	ug/L	U	N	N		R			L10080104-04	18:18
						1,2-DICHLOROETHANE	2.50	ug/L	U	N	N		R			L10080104-04	18:18
						1,2-DICHLOROPROPANE	2.00	ug/L	U	N	N		R			L10080104-04	18:18
						1,3,5-TRIMETHYLBENZENE	2.50	ug/L	U	N	N		R			L10080104-04	18:18
						1,3-DICHLOROBENZENE	2.50	ug/L	U	N	N		R			L10080104-04	18:18
						1,3-DICHLOROPROPANE	2.00	ug/L	U	N	N		R			L10080104-04	18:18
						1,4-DICHLOROBENZENE	1.25	ug/L	U	N	N		R			L10080104-04	18:18
						2,2-DICHLOROPROPANE	2.50	ug/L	U	N	N		R			L10080104-04	18:18
						2-BUTANONE	25.0	ug/L	U	N	N		R			L10080104-04	18:18
						2-CHLOROETHYL VINYL ETHER	20.0	ug/L	U	N	N		R			L10080104-04	18:18
						2-CHLOROTOLUENE	1.25	ug/L	U	N	N		R			L10080104-04	18:18
						2-HEXANONE	25.0	ug/L	U	N	N		R			L10080104-04	18:18
						4-CHLOROTOLUENE	2.50	ug/L	U	N	N		R			L10080104-04	18:18
						4-METHYL-2-PENTANONE	25.0	ug/L	U	N	N		R			L10080104-04	18:18
						ACETONE	25.0	ug/L	U	N	N		R			L10080104-04	18:18
						BENZENE	3.22	ug/L	J	Y	N		R			L10080104-04	18:18
						BROMOBENZENE	1.25	ug/L	U	N	N		R			L10080104-04	18:18
						BROMOCHLOROMETHANE	2.00	ug/L	U	N	N		R			L10080104-04	18:18
						BROMODICHLOROMETHANE	2.50	ug/L	U	N	N		R			L10080104-04	18:18
						BROMOFORM	5.00	ug/L	U	N	N		R			L10080104-04	18:18
						BROMOMETHANE	5.00	ug/L	U	N	N		R			L10080104-04	18:18
						CARBON DISULFIDE	5.00	ug/L	U	N	N		R			L10080104-04	18:18
						CARBON TETRACHLORIDE	2.50	ug/L	U	N	N		R			L10080104-04	18:18

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47WW14-100804	SW8260B	SW5030	N 0 10	CHLOROBENZENE	1.25	ug/L	U	N N	R			L10080104-04	18:18
				CHLORODIBROMOMETHANE	2.50	ug/L	U	N N	R			L10080104-04	18:18
				CHLOROETHANE	5.00	ug/L	U	N N	R			L10080104-04	18:18
				CHLOROFORM	1.25	ug/L	U	N N	R			L10080104-04	18:18
				CHLOROMETHANE	5.00	ug/L	U	N N	R			L10080104-04	18:18
				CIS-1,2-DICHLOROETHENE	125	ug/L		Y N	R			L10080104-04	18:18
				CIS-1,3-DICHLOROPROPENE	2.50	ug/L	U	N N	R			L10080104-04	18:18
				DIBROMOMETHANE	2.50	ug/L	U	N N	R			L10080104-04	18:18
				DICHLORODIFLUOROMETHANE	2.50	ug/L	U	N N	R			L10080104-04	18:18
				ETHYLBENZENE	2.50	ug/L	U	N N	R			L10080104-04	18:18
				HEXACHLOROBUTADIENE	2.50	ug/L	U	N N	R			L10080104-04	18:18
				ISOPROPYLBENZENE	2.50	ug/L	U	N N	R			L10080104-04	18:18
				M-,P-XYLENE	5.00	ug/L	U	N N	R			L10080104-04	18:18
				METHYLENE CHLORIDE	2.78	ug/L	J	Y N	R			L10080104-04	18:18
				N-BUTYLBENZENE	2.50	ug/L	U	N N	R			L10080104-04	18:18
				N-PROPYLBENZENE	1.25	ug/L	U	N N	R			L10080104-04	18:18
				NAPHTHALENE	2.00	ug/L	U	N N	R			L10080104-04	18:18
				O-XYLENE	2.50	ug/L	U	N N	R			L10080104-04	18:18
				P-ISOPROPYLTOLUENE	2.50	ug/L	U	N N	R			L10080104-04	18:18
				SEC-BUTYLBENZENE	2.50	ug/L	U	N N	R			L10080104-04	18:18
				STYRENE	1.25	ug/L	U	N N	R			L10080104-04	18:18
				TERT-BUTYLBENZENE	2.50	ug/L	U	N N	R			L10080104-04	18:18
				TETRACHLOROETHENE	2.50	ug/L	U	N N	R			L10080104-04	18:18
				TOLUENE	2.50	ug/L	J	Y N	R			L10080104-04	18:18
				TRANS-1,2-DICHLOROETHENE	2.50	ug/L	U	N N	R			L10080104-04	18:18
				TRANS-1,3-DICHLOROPROPENE	5.00	ug/L	U	N N	R			L10080104-04	18:18
				TRICHLOROETHENE	353	ug/L		Y Y				L10080104-04	18:18
				TRICHLOROFLUOROMETHANE	2.50	ug/L	U	N N	R			L10080104-04	18:18
				VINYL ACETATE	25.0	ug/L	U	N N	R			L10080104-04	18:18
				VINYL CHLORIDE	13.2	ug/L		Y N	R			L10080104-04	18:18
	SW8260B	SW5030	N 1 1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N Y	U			L10080104-04	19:56
				1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				1,1-DICHLOROETHANE	0.784	ug/L	J	Y Y	J			L10080104-04	19:56
				1,1-DICHLOROETHENE	2.77	ug/L		Y Y				L10080104-04	19:56
				1,1-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N Y	U			L10080104-04	19:56
				1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N Y	U			L10080104-04	19:56
				1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N Y	U			L10080104-04	19:56
				1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N Y	U			L10080104-04	19:56
				1,2-DIBROMOETHANE	0.250	ug/L	U	N Y	U			L10080104-04	19:56

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47WW14-100804	SW8260B	SW5030	N 1 1	1,2-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080104-04	19:56
				1,2-DICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				1,2-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080104-04	19:56
				1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				1,3-DICHLOROBENZENE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				1,3-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080104-04	19:56
				1,4-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080104-04	19:56
				2,2-DICHLOROPROPANE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				2-BUTANONE	2.50	ug/L	U	N Y	U			L10080104-04	19:56
				2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N Y	U			L10080104-04	19:56
				2-CHLOROTOLUENE	0.125	ug/L	U	N Y	U			L10080104-04	19:56
				2-HEXANONE	2.50	ug/L	U	N Y	U			L10080104-04	19:56
				4-CHLOROTOLUENE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				4-METHYL-2-PENTANONE	2.50	ug/L	U	N Y	U			L10080104-04	19:56
				ACETONE	2.50	ug/L	U	N Y	U			L10080104-04	19:56
				BENZENE	0.125	ug/L	U	N Y	U			L10080104-04	19:56
				BROMOBENZENE	0.125	ug/L	U	N Y	U			L10080104-04	19:56
				BROMOCHLOROMETHANE	0.200	ug/L	U	N Y	U			L10080104-04	19:56
				BROMODICHLOROMETHANE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				BROMOFORM	0.500	ug/L	U	N Y	U			L10080104-04	19:56
				BROMOMETHANE	0.500	ug/L	U	N Y	U			L10080104-04	19:56
				CARBON DISULFIDE	0.500	ug/L	U	N Y	U			L10080104-04	19:56
				CARBON TETRACHLORIDE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				CHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080104-04	19:56
				CHLORODIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				CHLOROETHANE	0.500	ug/L	U	N Y	U			L10080104-04	19:56
				CHLOROFORM	0.125	ug/L	U	N Y	U			L10080104-04	19:56
				CHLOROMETHANE	0.500	ug/L	U	N Y	U			L10080104-04	19:56
				CIS-1,2-DICHLOROETHENE	140	ug/L		Y Y				L10080104-04	19:56
				CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				DIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				ETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				HEXACHLOROBUTADIENE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				ISOPROPYLBENZENE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				M-,P-XYLENE	0.500	ug/L	U	N Y	U			L10080104-04	19:56
				METHYLENE CHLORIDE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				N-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				N-PROPYLBENZENE	0.125	ug/L	U	N Y	U			L10080104-04	19:56
				NAPHTHALENE	0.200	ug/L	U	N Y	U			L10080104-04	19:56
				O-XYLENE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				P-ISOPROPYLTOLUENE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				SEC-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080104-04	19:56
				STYRENE	0.125	ug/L	U	N Y	U			L10080104-04	19:56

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47WW14-100804	SW8260B	SW5030	N	1	1	TERT-BUTYLBENZENE	0.250	ug/L	U	N	Y		U						L10080104-04	19:56
						TETRACHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080104-04	19:56
						TOLUENE	0.250	ug/L	U	N	Y		U						L10080104-04	19:56
						TRANS-1,2-DICHLOROETHENE	0.972	ug/L	J	Y	Y		J	✓					L10080104-04	19:56
						TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N	Y		U						L10080104-04	19:56
						TRICHLOROETHENE	434	ug/L	E	Y	N		R	✓					L10080104-04	19:56
						TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N	Y		U						L10080104-04	19:56
						VINYL ACETATE	2.50	ug/L	U	N	Y		U						L10080104-04	19:56
						VINYL CHLORIDE	15.2	ug/L		Y	Y								L10080104-04	19:56
	SW8270C	SW3510	N	0	1	1,2,4-TRICHLOROBENZENE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						1,2-DICHLOROBENZENE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						1,3-DICHLOROBENZENE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						1,4-DICHLOROBENZENE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						2,4,5-TRICHLOROPHENOL	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						2,4,6-TRICHLOROPHENOL	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						2,4-DICHLOROPHENOL	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						2,4-DIMETHYLPHENOL	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						2,4-DINITROPHENOL	12.5	ug/L	U	N	Y		U						L10080104-04	01:55
						2,4-DINITROTOLUENE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						2,6-DINITROTOLUENE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						2-CHLORONAPHTHALENE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						2-CHLOROPHENOL	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						2-METHYLNAPHTHALENE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						2-METHYLPHENOL	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						2-NITROANILINE	12.5	ug/L	U	N	Y		U						L10080104-04	01:55
						2-NITROPHENOL	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						3,3'-DICHLOROBENZIDINE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						3-,4-METHYLPHENOL	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						3-NITROANILINE	12.5	ug/L	U	N	Y		U						L10080104-04	01:55
						4,6-DINITRO-2-METHYLPHENOL	12.5	ug/L	U	N	Y		U						L10080104-04	01:55
						4-BROMOPHENYL-PHENYLETHER	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						4-CHLORO-3-METHYLPHENOL	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						4-CHLOROANILINE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						4-CHLOROPHENYL-PHENYL ETHER	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						4-NITROANILINE	12.5	ug/L	U	N	Y		U						L10080104-04	01:55
						4-NITROPHENOL	12.5	ug/L	U	N	Y		U						L10080104-04	01:55
						ACENAPHTHENE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						ACENAPHTHYLENE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						ANTHRACENE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						BENZO(A)ANTHRACENE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						BENZO(A)PYRENE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						BENZO(B)FLUORANTHENE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55
						BENZO(G,H,I)PERYLENE	2.50	ug/L	U	N	Y		U						L10080104-04	01:55

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47WW14-100804	SW8270C	SW3510	N 0 1	BENZO(K)FLUORANTHENE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				BENZOIC ACID	12.5	ug/L	U	N Y	U			L10080104-04	01:55
				BENZYL ALCOHOL	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				BIS(2-CHLOROETHOXY)METHANE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				BIS(2-CHLOROETHYL)ETHER	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				BIS(2-CHLOROISOPROPYL)ETHER	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				BIS(2-ETHYLHEXYL)PHTHALATE	14.2	ug/L		Y Y	U-EB			L10080104-04	01:55
				BUTYLBENZYLPHTHALATE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				CHRYSENE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				DI-N-BUTYLPHTHALATE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				DI-N-OCTYLPHTHALATE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				DIBENZO(A,H)ANTHRACENE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				DIBENZOFURAN	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				DIETHYLPHTHALATE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				DIMETHYLPHTHALATE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				FLUORANTHENE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				FLUORENE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				HEXACHLOROBENZENE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				HEXACHLOROBUTADIENE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				HEXACHLOROCYCLOPENTADIENE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				HEXACHLOROETHANE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				INDENO(1,2,3-CD)PYRENE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				ISOPHORONE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				N-NITROSODIPHENYLAMINE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				N-NITROSODIPROPYLAMINE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				NAPHTHALENE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				NITROBENZENE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				PENTACHLOROPHENOL	12.5	ug/L	U	N Y	U			L10080104-04	01:55
				PHENANTHRENE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				PHENOL	2.50	ug/L	U	N Y	U			L10080104-04	01:55
				PYRENE	2.50	ug/L	U	N Y	U			L10080104-04	01:55
47WW14-100804-FD	E300	NONE	N 0 3	FLUORIDE	0.420	mg/L	J	Y Y	J			L10080104-05	19:06
				NITRATE	0.300	mg/L	U	N Y	U			L10080104-05	19:06
				NITRITE	0.300	mg/L	U	N Y	U			L10080104-05	19:06
				SULFATE	301	mg/L		Y Y				L10080104-05	19:06
	E300	NONE	N 1 10	CHLORIDE	312	mg/L		Y Y				L10080104-05	19:25
	E310.2	NONE	N 0 2	ALKALINITY, TOTAL (AS CACO3)	307	mg/L		Y Y				L10080104-05	11:31
	E415.1	NONE	N 0 2	TOTAL ORGANIC CARBON	9.84	mg/L		Y Y				L10080104-05	17:52
	RSK175	SW5021	N 0 1	ETHANE	1.00	ug/L	U	N Y	U			L10080104-05	20:00
				ETHENE	1.00	ug/L	U	N Y	U			L10080104-05	20:00
				METHANE	55.8	ug/L		Y Y				L10080104-05	20:00
	SW6010B	TOTREC	N 0 10	SODIUM, TOTAL	346	mg/L		Y Y				L10080104-05	17:54

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47WW14-100804-FD	SW6010B	TOTREC	N	1	1	ALUMINUM, TOTAL	0.0500	mg/L	U	N	Y		U						L10080104-05	22:02
						BERYLLIUM, TOTAL	0.000500	mg/L	U	N	Y		U						L10080104-05	22:02
						CALCIUM, TOTAL	68.7	mg/L		Y	Y								L10080104-05	22:02
						COBALT, TOTAL	0.00250	mg/L	U	N	Y		U						L10080104-05	22:02
						IRON, TOTAL	0.268	mg/L		Y	Y								L10080104-05	22:02
						MAGNESIUM, TOTAL	44.8	mg/L		Y	Y								L10080104-05	22:02
						POTASSIUM, TOTAL	1.52	mg/L		Y	Y								L10080104-05	22:02
						VANADIUM, TOTAL	0.00500	mg/L	U	N	Y		U						L10080104-05	22:02
						ZINC, TOTAL	0.00500	mg/L	U	N	Y		U						L10080104-05	22:02
	SW6020	SW3015	N	0	5	ANTIMONY, TOTAL	0.00125	mg/L	U	N	Y		U						L10080104-05	20:12
						ARSENIC, TOTAL	0.00195	mg/L	J	Y	Y		J						L10080104-05	20:12
						BARIUM, TOTAL	0.0523	mg/L		Y	Y								L10080104-05	20:12
						CADMIUM, TOTAL	0.000625	mg/L	U	N	Y		U						L10080104-05	20:12
						CHROMIUM, TOTAL	0.0562	mg/L		Y	Y								L10080104-05	20:12
						COPPER, TOTAL	0.00250	mg/L	U	N	Y		U						L10080104-05	20:12
						LEAD, TOTAL	0.00125	mg/L	U	N	Y		U						L10080104-05	20:12
						MANGANESE, TOTAL	0.0957	mg/L		Y	Y								L10080104-05	20:12
						NICKEL, TOTAL	0.0391	mg/L		Y	Y								L10080104-05	20:12
						SELENIUM, TOTAL	0.00873	mg/L		Y	Y								L10080104-05	20:12
						SILVER, TOTAL	0.00125	mg/L	U	N	Y		U						L10080104-05	20:12
						THALLIUM, TOTAL	0.000250	mg/L	U	N	Y		U						L10080104-05	20:12
	SW6850	NONE	N	0	1	PERCHLORATE	0.100	ug/L	U	N	Y		U						L10080104-05	07:42
	SW7470A	METHOD	N	0	1	MERCURY	0.000100	mg/L	U	N	Y		U						L10080104-05	11:31
	SW8260B	SW5030	N	0	5	1,1,1,2-TETRACHLOROETHANE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						1,1,1-TRICHLOROETHANE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						1,1,2,2-TETRACHLOROETHANE	1.00	ug/L	U	N	N		R						L10080104-05	14:26
						1,1,2-TRICHLOROETHANE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						1,1-DICHLOROETHANE	0.687	ug/L	J	Y	N		R						L10080104-05	14:26
						1,1-DICHLOROETHENE	2.50	ug/L	U	N	N		R						L10080104-05	14:26
						1,1-DICHLOROPROPENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						1,2,3-TRICHLOROBENZENE	0.750	ug/L	U	N	N		R						L10080104-05	14:26
						1,2,3-TRICHLOROPROPANE	2.50	ug/L	U	N	N		R						L10080104-05	14:26
						1,2,4-TRICHLOROBENZENE	1.00	ug/L	U	N	N		R						L10080104-05	14:26
						1,2,4-TRIMETHYLBENZENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						1,2-DIBROMO-3-CHLOROPROPANE	5.00	ug/L	U	N	N		R						L10080104-05	14:26
						1,2-DIBROMOETHANE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						1,2-DICHLOROBENZENE	0.625	ug/L	U	N	N		R						L10080104-05	14:26
						1,2-DICHLOROETHANE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						1,2-DICHLOROPROPANE	1.00	ug/L	U	N	N		R						L10080104-05	14:26
						1,3,5-TRIMETHYLBENZENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						1,3-DICHLOROBENZENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						1,3-DICHLOROPROPANE	1.00	ug/L	U	N	N		R						L10080104-05	14:26
						1,4-DICHLOROBENZENE	0.625	ug/L	U	N	N		R						L10080104-05	14:26

Validation Qualifier Data Entry Verification

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Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47WW14-100804-FD	SW8260B	SW5030	N	0	5	2,2-DICHLOROPROPANE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						2-BUTANONE	12.5	ug/L	U	N	N		R						L10080104-05	14:26
						2-CHLOROETHYL VINYL ETHER	10.0	ug/L	U	N	N		R						L10080104-05	14:26
						2-CHLOROTOLUENE	0.625	ug/L	U	N	N		R						L10080104-05	14:26
						2-HEXANONE	12.5	ug/L	U	N	N		R						L10080104-05	14:26
						4-CHLOROTOLUENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						4-METHYL-2-PENTANONE	12.5	ug/L	U	N	N		R						L10080104-05	14:26
						ACETONE	12.5	ug/L	U	N	N		R						L10080104-05	14:26
						BENZENE	0.625	ug/L	U	N	N		R						L10080104-05	14:26
						BROMOBENZENE	0.625	ug/L	U	N	N		R						L10080104-05	14:26
						BROMOCHLOROMETHANE	1.00	ug/L	U	N	N		R						L10080104-05	14:26
						BROMODICHLOROMETHANE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						BROMOFORM	2.50	ug/L	U	N	N		R						L10080104-05	14:26
						BROMOMETHANE	3.09	ug/L	J	Y	N		R						L10080104-05	14:26
						CARBON DISULFIDE	2.50	ug/L	U	N	N		R						L10080104-05	14:26
						CARBON TETRACHLORIDE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						CHLOROBENZENE	0.625	ug/L	U	N	N		R						L10080104-05	14:26
						CHLORODIBROMOMETHANE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						CHLOROETHANE	2.50	ug/L	U	N	N		R						L10080104-05	14:26
						CHLOROFORM	0.625	ug/L	U	N	N		R						L10080104-05	14:26
						CHLOROMETHANE	2.50	ug/L	U	N	N		R						L10080104-05	14:26
						CIS-1,2-DICHLOROETHENE	121	ug/L		Y	N		R						L10080104-05	14:26
						CIS-1,3-DICHLOROPROPENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						DIBROMOMETHANE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						DICHLORODIFLUOROMETHANE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						ETHYLBENZENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						HEXACHLOROBUTADIENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						ISOPROPYLBENZENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						M-,P-XYLENE	2.50	ug/L	U	N	N		R						L10080104-05	14:26
						METHYLENE CHLORIDE	1.60	ug/L	J	Y	N		R						L10080104-05	14:26
						N-BUTYLBENZENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						N-PROPYLBENZENE	0.625	ug/L	U	N	N		R						L10080104-05	14:26
						NAPHTHALENE	1.00	ug/L	U	N	N		R						L10080104-05	14:26
						O-XYLENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						P-ISOPROPYLTOLUENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						SEC-BUTYLBENZENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						STYRENE	0.625	ug/L	U	N	N		R						L10080104-05	14:26
						TERT-BUTYLBENZENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						TETRACHLOROETHENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						TOLUENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						TRANS-1,2-DICHLOROETHENE	1.25	ug/L	U	N	N		R						L10080104-05	14:26
						TRANS-1,3-DICHLOROPROPENE	2.50	ug/L	U	N	N		R						L10080104-05	14:26
						TRICHLOROETHENE	351	ug/L		Y	Y								L10080104-05	14:26
						TRICHLOROFLUOROMETHANE	1.25	ug/L	U	N	N		R						L10080104-05	14:26

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47WW14-100804-FD	SW8260B	SW5030	N	0	5	VINYL ACETATE	12.5	ug/L	U	N	N		R						L10080104-05	14:26
						VINYL CHLORIDE	11.9	ug/L		Y	N		R						L10080104-05	14:26
	SW8260B	SW5030	N	1	1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N	Y		U						L10080104-05	20:33
						1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						1,1-DICHLOROETHANE	0.755	ug/L	J	Y	Y		J						L10080104-05	20:33
						1,1-DICHLOROETHENE	2.73	ug/L		Y	Y								L10080104-05	20:33
						1,1-DICHLOROPROPENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N	Y		U						L10080104-05	20:33
						1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N	Y		U						L10080104-05	20:33
						1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N	Y		U						L10080104-05	20:33
						1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N	Y		U						L10080104-05	20:33
						1,2-DIBROMOETHANE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						1,2-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080104-05	20:33
						1,2-DICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						1,2-DICHLOROPROPANE	0.200	ug/L	U	N	Y		U						L10080104-05	20:33
						1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						1,3-DICHLOROBENZENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						1,3-DICHLOROPROPANE	0.200	ug/L	U	N	Y		U						L10080104-05	20:33
						1,4-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080104-05	20:33
						2,2-DICHLOROPROPANE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						2-BUTANONE	2.50	ug/L	U	N	Y		U						L10080104-05	20:33
						2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N	Y		U						L10080104-05	20:33
						2-CHLOROTOLUENE	0.125	ug/L	U	N	Y		U						L10080104-05	20:33
						2-HEXANONE	2.50	ug/L	U	N	Y		U						L10080104-05	20:33
						4-CHLOROTOLUENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						4-METHYL-2-PENTANONE	2.50	ug/L	U	N	Y		U						L10080104-05	20:33
						ACETONE	2.50	ug/L	U	N	Y		U						L10080104-05	20:33
						BENZENE	0.125	ug/L	U	N	Y		U						L10080104-05	20:33
						BROMOBENZENE	0.125	ug/L	U	N	Y		U						L10080104-05	20:33
						BROMOCHLOROMETHANE	0.200	ug/L	U	N	Y		U						L10080104-05	20:33
						BROMODICHLOROMETHANE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						BROMOFORM	0.500	ug/L	U	N	Y		U						L10080104-05	20:33
						BROMOMETHANE	0.500	ug/L	U	N	Y		U						L10080104-05	20:33
						CARBON DISULFIDE	0.500	ug/L	U	N	Y		U						L10080104-05	20:33
						CARBON TETRACHLORIDE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						CHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080104-05	20:33
						CHLORODIBROMOMETHANE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						CHLOROETHANE	0.500	ug/L	U	N	Y		U						L10080104-05	20:33
						CHLOROFORM	0.125	ug/L	U	N	Y		U						L10080104-05	20:33
						CHLOROMETHANE	0.500	ug/L	U	N	Y		U						L10080104-05	20:33

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47WW14-100804-FD	SW8260B	SW5030	N	1	1	CIS-1,2-DICHLOROETHENE	133	ug/L		Y	Y								L10080104-05	20:33
						CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						DIBROMOMETHANE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						ETHYLBENZENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						HEXACHLOROBUTADIENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						ISOPROPYLBENZENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						M-,P-XYLENE	0.500	ug/L	U	N	Y		U						L10080104-05	20:33
						METHYLENE CHLORIDE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						N-BUTYLBENZENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						N-PROPYLBENZENE	0.125	ug/L	U	N	Y		U						L10080104-05	20:33
						NAPHTHALENE	0.200	ug/L	U	N	Y		U						L10080104-05	20:33
						O-XYLENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						P-ISOPROPYLTOLUENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						SEC-BUTYLBENZENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						STYRENE	0.125	ug/L	U	N	Y		U						L10080104-05	20:33
						TERT-BUTYLBENZENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						TETRACHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						TOLUENE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						TRANS-1,2-DICHLOROETHENE	1.01	ug/L		Y	Y								L10080104-05	20:33
						TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N	Y		U						L10080104-05	20:33
						TRICHLOROETHENE	384	ug/L	E	Y	N		R						L10080104-05	20:33
						TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N	Y		U						L10080104-05	20:33
						VINYL ACETATE	2.50	ug/L	U	N	Y		U						L10080104-05	20:33
						VINYL CHLORIDE	14.1	ug/L		Y	Y								L10080104-05	20:33
47WW30-100804	E300	NONE	N	0	10	FLUORIDE	1.00	mg/L	U	N	Y		U						L10080104-01	19:43
						NITRATE	1.00	mg/L	U	N	Y		U						L10080104-01	19:43
						NITRITE	1.00	mg/L	U	N	Y		U						L10080104-01	19:43
						SULFATE	1540	mg/L		Y	Y								L10080104-01	19:43
	E300	NONE	N	1	20	CHLORIDE	674	mg/L		Y	Y								L10080104-01	20:02
	E310.2	NONE	N	0	3	ALKALINITY, TOTAL (AS CACO3)	613	mg/L		Y	Y								L10080104-01	11:30
	E415.1	NONE	N	0	4	TOTAL ORGANIC CARBON	20.3	mg/L		Y	Y								L10080104-01	10:28
	RSK175	SW5021	N	0	1	ETHANE	1.00	ug/L	U	N	Y		U						L10080104-01	19:11
						ETHENE	1.00	ug/L	U	N	Y		U						L10080104-01	19:11
						METHANE	30.1	ug/L		Y	Y								L10080104-01	19:11
	SW6010B	TOTREC	N	0	1	ALUMINUM, TOTAL	3.61	mg/L		Y	Y								L10080104-01	21:36
						BERYLLIUM, TOTAL	0.000500	mg/L	U	N	Y		U						L10080104-01	21:36
						CALCIUM, TOTAL	188	mg/L		Y	Y								L10080104-01	21:36
						COBALT, TOTAL	0.00615	mg/L		Y	Y								L10080104-01	21:36
						IRON, TOTAL	4.69	mg/L		Y	Y								L10080104-01	21:36
						MAGNESIUM, TOTAL	96.9	mg/L		Y	Y								L10080104-01	21:36
						POTASSIUM, TOTAL	2.79	mg/L		Y	Y								L10080104-01	21:36
						VANADIUM, TOTAL	0.00818	mg/L	J	Y	Y		J						L10080104-01	21:36

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47WW30-100804	SW6010B	TOTREC	N	0	1	ZINC, TOTAL	0.0139	mg/L	J	Y	Y		J						L10080104-01	21:36
	SW6010B	TOTREC	N	1	10	SODIUM, TOTAL	673	mg/L		Y	Y								L10080104-01	17:41
	SW6020	SW3015	N	0	5	ANTIMONY, TOTAL	0.00238	mg/L	J	Y	Y		J						L10080104-01	19:45
						ARSENIC, TOTAL	0.0731	mg/L		Y	Y								L10080104-01	19:45
						BARIUM, TOTAL	0.0582	mg/L		Y	Y								L10080104-01	19:45
						CADMIUM, TOTAL	0.000625	mg/L	U	N	Y		U						L10080104-01	19:45
						CHROMIUM, TOTAL	0.0122	mg/L		Y	Y								L10080104-01	19:45
						COPPER, TOTAL	0.00707	mg/L	J	Y	Y		J						L10080104-01	19:45
						LEAD, TOTAL	0.00359	mg/L		Y	Y								L10080104-01	19:45
						MANGANESE, TOTAL	0.171	mg/L		Y	Y								L10080104-01	19:45
						NICKEL, TOTAL	0.0175	mg/L	J	Y	Y		J						L10080104-01	19:45
						SELENIUM, TOTAL	0.0146	mg/L		Y	Y								L10080104-01	19:45
						SILVER, TOTAL	0.00125	mg/L	U	N	Y		U						L10080104-01	19:45
						THALLIUM, TOTAL	0.000250	mg/L	U	N	Y		U						L10080104-01	19:45
	SW6850	NONE	N	0	1	PERCHLORATE	1.47	ug/L		Y	Y								L10080104-01	04:58
	SW7470A	METHOD	N	0	1	MERCURY	0.000100	mg/L	U	N	Y		U						L10080104-01	11:15
	SW8260B	SW5030	N	0	10	1,1,1,2-TETRACHLOROETHANE	2.50	ug/L	U	N	Y		U						L10080104-01	20:29
						1,1,1-TRICHLOROETHANE	2.50	ug/L	U	N	Y		U						L10080104-01	20:29
						1,1,2,2-TETRACHLOROETHANE	2.00	ug/L	U	N	Y		U						L10080104-01	20:29
						1,1,2-TRICHLOROETHANE	2.50	ug/L	U	N	Y		U						L10080104-01	20:29
						1,1-DICHLOROETHANE	1.25	ug/L	U	N	Y		U						L10080104-01	20:29
						1,1-DICHLOROETHENE	5.00	ug/L	U	N	Y		U						L10080104-01	20:29
						1,1-DICHLOROPROPENE	2.50	ug/L	U	N	Y		U						L10080104-01	20:29
						1,2,3-TRICHLOROBENZENE	1.50	ug/L	U	N	Y		U						L10080104-01	20:29
						1,2,3-TRICHLOROPROPANE	5.00	ug/L	U	N	Y		U						L10080104-01	20:29
						1,2,4-TRICHLOROBENZENE	2.00	ug/L	U	N	Y		U						L10080104-01	20:29
						1,2,4-TRIMETHYLBENZENE	2.50	ug/L	U	N	Y		U						L10080104-01	20:29
						1,2-DIBROMO-3-CHLOROPROPANE	10.0	ug/L	U	N	Y		U						L10080104-01	20:29
						1,2-DIBROMOETHANE	2.50	ug/L	U	N	Y		U						L10080104-01	20:29
						1,2-DICHLOROBENZENE	1.25	ug/L	U	N	Y		U						L10080104-01	20:29
						1,2-DICHLOROETHANE	2.50	ug/L	U	N	Y		U						L10080104-01	20:29
						1,2-DICHLOROPROPANE	2.00	ug/L	U	N	Y		U						L10080104-01	20:29
						1,3,5-TRIMETHYLBENZENE	2.50	ug/L	U	N	Y		U						L10080104-01	20:29
						1,3-DICHLOROBENZENE	2.50	ug/L	U	N	Y		U						L10080104-01	20:29
						1,3-DICHLOROPROPANE	2.00	ug/L	U	N	Y		U						L10080104-01	20:29
						1,4-DICHLOROBENZENE	1.25	ug/L	U	N	Y		U						L10080104-01	20:29
						2,2-DICHLOROPROPANE	2.50	ug/L	U	N	Y		U						L10080104-01	20:29
						2-BUTANONE	25.0	ug/L	U	N	Y		U						L10080104-01	20:29
						2-CHLOROETHYL VINYL ETHER	20.0	ug/L	U	N	Y		U						L10080104-01	20:29
						2-CHLOROTOLUENE	1.25	ug/L	U	N	Y		U						L10080104-01	20:29
						2-HEXANONE	25.0	ug/L	U	N	Y		U						L10080104-01	20:29
						4-CHLOROTOLUENE	2.50	ug/L	U	N	Y		U						L10080104-01	20:29
						4-METHYL-2-PENTANONE	25.0	ug/L	U	N	Y		U						L10080104-01	20:29

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47WW30-100804	SW8260B	SW5030	N 0 10	ACETONE	25.0	ug/L	U	N Y	U			L10080104-01	20:29
				BENZENE	1.25	ug/L	U	N Y	U			L10080104-01	20:29
				BROMOBENZENE	1.25	ug/L	U	N Y	U			L10080104-01	20:29
				BROMOCHLOROMETHANE	2.00	ug/L	U	N Y	U			L10080104-01	20:29
				BROMODICHLOROMETHANE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				BROMOFORM	5.00	ug/L	U	N Y	U			L10080104-01	20:29
				BROMOMETHANE	5.00	ug/L	U	N Y	U			L10080104-01	20:29
				CARBON DISULFIDE	5.00	ug/L	U	N Y	U			L10080104-01	20:29
				CARBON TETRACHLORIDE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				CHLOROBENZENE	1.25	ug/L	U	N Y	U			L10080104-01	20:29
				CHLORODIBROMOMETHANE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				CHLOROETHANE	5.00	ug/L	U	N Y	U			L10080104-01	20:29
				CHLOROFORM	1.25	ug/L	U	N Y	U			L10080104-01	20:29
				CHLOROMETHANE	5.00	ug/L	U	N Y	U			L10080104-01	20:29
				CIS-1,2-DICHLOROETHENE	6.97	ug/L	J	Y Y	J			L10080104-01	20:29
				CIS-1,3-DICHLOROPROPENE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				DIBROMOMETHANE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				DICHLORODIFLUOROMETHANE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				ETHYLBENZENE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				HEXACHLOROBUTADIENE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				ISOPROPYLBENZENE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				M-,P-XYLENE	5.00	ug/L	U	N Y	U			L10080104-01	20:29
				METHYLENE CHLORIDE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				N-BUTYLBENZENE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				N-PROPYLBENZENE	1.25	ug/L	U	N Y	U			L10080104-01	20:29
				NAPHTHALENE	2.00	ug/L	U	N Y	U			L10080104-01	20:29
				O-XYLENE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				P-ISOPROPYLTOLUENE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				SEC-BUTYLBENZENE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				STYRENE	1.25	ug/L	U	N Y	U			L10080104-01	20:29
				TERT-BUTYLBENZENE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				TETRACHLOROETHENE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				TOLUENE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				TRANS-1,2-DICHLOROETHENE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				TRANS-1,3-DICHLOROPROPENE	5.00	ug/L	U	N Y	U			L10080104-01	20:29
				TRICHLOROETHENE	1100	ug/L		Y Y				L10080104-01	20:29
				TRICHLOROFLUOROMETHANE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
				VINYL ACETATE	25.0	ug/L	U	N Y	U			L10080104-01	20:29
				VINYL CHLORIDE	2.50	ug/L	U	N Y	U			L10080104-01	20:29
	SW8270C	SW3510	N 0 1	1,2,4-TRICHLOROBENZENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				1,2-DICHLOROBENZENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				1,3-DICHLOROBENZENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				1,4-DICHLOROBENZENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47WW30-100804	SW8270C	SW3510	N 0 1	2,4,5-TRICHLOROPHENOL	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				2,4,6-TRICHLOROPHENOL	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				2,4-DICHLOROPHENOL	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				2,4-DIMETHYLPHENOL	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				2,4-DINITROPHENOL	12.5	ug/L	U	N Y	U			L10080104-01	00:18
				2,4-DINITROTOLUENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				2,6-DINITROTOLUENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				2-CHLORONAPHTHALENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				2-CHLOROPHENOL	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				2-METHYLNAPHTHALENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				2-METHYLPHENOL	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				2-NITROANILINE	12.5	ug/L	U	N Y	U			L10080104-01	00:18
				2-NITROPHENOL	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				3,3'-DICHLOROBENZIDINE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				3-,4-METHYLPHENOL	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				3-NITROANILINE	12.5	ug/L	U	N Y	U			L10080104-01	00:18
				4,6-DINITRO-2-METHYLPHENOL	12.5	ug/L	U	N Y	U			L10080104-01	00:18
				4-BROMOPHENYL-PHENYLETHER	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				4-CHLORO-3-METHYLPHENOL	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				4-CHLOROANILINE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				4-CHLOROPHENYL-PHENYL ETHER	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				4-NITROANILINE	12.5	ug/L	U	N Y	U			L10080104-01	00:18
				4-NITROPHENOL	12.5	ug/L	U	N Y	U			L10080104-01	00:18
				ACENAPHTHENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				ACENAPHTHYLENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				ANTHRACENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				BENZO(A)ANTHRACENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				BENZO(A)PYRENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				BENZO(B)FLUORANTHENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				BENZO(G,H,I)PERYLENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				BENZO(K)FLUORANTHENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				BENZOIC ACID	12.5	ug/L	U	N Y	U			L10080104-01	00:18
				BENZYL ALCOHOL	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				BIS(2-CHLOROETHOXY)METHANE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				BIS(2-CHLOROETHYL)ETHER	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				BIS(2-CHLOROISOPROPYL)ETHER	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				BIS(2-ETHYLHEXYL)PHTHALATE	3.92	ug/L	J	Y Y	U-EB			L10080104-01	00:18
				BUTYLBENZYLPHTHALATE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				CHRYSENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				DI-N-BUTYLPHTHALATE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				DI-N-OCTYLPHTHALATE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				DIBENZO(A,H)ANTHRACENE	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				DIBENZOFURAN	2.50	ug/L	U	N Y	U			L10080104-01	00:18
				DIETHYLPHTHALATE	2.50	ug/L	U	N Y	U			L10080104-01	00:18

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47WW30-100804	SW8270C	SW3510	N	0	1	DIMETHYLPHTHALATE	2.50	ug/L	U	N	Y		U						L10080104-01	00:18
						FLUORANTHENE	2.50	ug/L	U	N	Y		U						L10080104-01	00:18
						FLUORENE	2.50	ug/L	U	N	Y		U						L10080104-01	00:18
						HEXACHLOROBENZENE	2.50	ug/L	U	N	Y		U						L10080104-01	00:18
						HEXACHLOROBUTADIENE	2.50	ug/L	U	N	Y		U						L10080104-01	00:18
						HEXACHLOROCYCLOPENTADIENE	2.50	ug/L	U	N	Y		U						L10080104-01	00:18
						HEXACHLOROETHANE	2.50	ug/L	U	N	Y		U						L10080104-01	00:18
						INDENO(1,2,3-CD)PYRENE	2.50	ug/L	U	N	Y		U						L10080104-01	00:18
						ISOPHORONE	2.50	ug/L	U	N	Y		U						L10080104-01	00:18
						N-NITROSODIPHENYLAMINE	2.50	ug/L	U	N	Y		U						L10080104-01	00:18
						N-NITROSODIPROPYLAMINE	2.50	ug/L	U	N	Y		U						L10080104-01	00:18
						NAPHTHALENE	2.50	ug/L	U	N	Y		U						L10080104-01	00:18
						NITROBENZENE	2.50	ug/L	U	N	Y		U						L10080104-01	00:18
						PENTACHLOROPHENOL	12.5	ug/L	U	N	Y		U						L10080104-01	00:18
						PHENANTHRENE	2.50	ug/L	U	N	Y		U						L10080104-01	00:18
						PHENOL	2.50	ug/L	U	N	Y		U						L10080104-01	00:18
						PYRENE	2.50	ug/L	U	N	Y		U						L10080104-01	00:18

LL0080104 00104322
(MNA)
LHAAP-47

NO. 5888

Chain of Custody

Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

Laboratory Name: Environmental Waste Solutions C/O MicroBAC Address: 158 Starlite DR. MARIETTA, OH 45750 Contact: Stephanie MOSSBURG

Project Name: LHAAP Project Location: KARNACK, TX.

Project No.: 117591.0009A130 Project Contact: JEN HOANG Project Telephone No.: 281-531-3108

Point of Contact: Scott Beesinger Project Manager/Supervisor: PRAVEEN SRIVASTAV

Telephone No.: 903-679-3248

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	VOC	Dissolved Gases	SVOC	Anions	Nitrate/Nitrite	TOC	Alkalinity	TAL Metals	Remarks
1	47WW30-100804	8/4/10	12:40		✓	W	Site 47	10	2	3	1	1	1		1	1	
2	47WW13-100804	8/4/10	2:15		✓	W	Site 47	10	2	3	1	1	1		1	1	
3	Equipment Rinse-100804	8/4/10	4:30		✓	W	Site 47	10	2	3	1	1	1		1	1	
4	47WW14-100804	8/4/10	3:40		✓	W	Site 47	10	2	3	1	1	1		1	1	
5	47WW14-100804-FD	8/4/10	3:40		✓	W	Site 47	10	2	3	1	1	1		1	1	
6																	
7																	
8																	
9																	
10																	

Transfers Relinquished By (signature)	Date/Time	Transfers Accepted By (signature)	Date/Time
Scott Beesinger	8/4/10 5:00		

Special Instructions: 5 DAY TAT

Microbac OVD
Received: 08/05/2010 09:58
By: BRENDA GREENWALT
221000008007

Brenda Greenwalt

FedEx Airbill No.:

Sampler's Signature: Scott Beesinger

TAT: ____ Standard ____ Rush Date ____

od Condition ____ Y ____ N ____ Cold

File Copy

Form Number: 433_2
Rev. 10-19-07

Page 631

Chain of Custody

NO. 5889

Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

Laboratory Name: Environmental Waste Solutions C/O MicroBAC Address: 158 Starlite DR. MARIETTA, OH Contact: Stephanie MOSSBURG

Project Name: LHAAP Project Location: KARNACK, TX.

Project No.: 117591.0009A130 Project Contact: Jen Hoang Project Telephone No.: 281-531-3108

Point of Contact: Scott Beesinger Telephone No.: 903-679-3448

Project Manager/Supervisor: PRAVEEN SRIVASTAV

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	Perchlorate	Method 6850	VOC	Remarks
1	47WW30-100804	8/4/10	12:40		✓	W	Site 47	1	1			
2	47WW13-100804	8/4/10	2:15		✓	W	Site 47	1	1			
3	47WW14-100804	8/4/10	3:40		✓	W	Site 47	1	1			
4	47WW14-100804-FD	8/4/10	3:40		✓	W	Site 47	1	1			
5	EquipmentRinse-100804	8/4/10	4:30		✓	W	Site 47	1	1			
6	TripBlank	8/4/10			✓	W		2			2	
7												
8												
9												
10												

Transfers Relinquished By (signature)	Date/Time	Transfers Accepted By (signature)	Date/Time
Scott Beesinger	8/4/10 5:00		
		Laboratory	

Special Instructions: 5 DAY TAT

FedEx Airbill No.:

Sampler's Signature: Scott Beesinger

TAT: ____ Standard ____ Rush Date ____ Seals Intact? ____ Y ____ N Received Good Condition ____ Y ____ N ____ Cold

White - Lab Copy Canary - Field Copy Pink - File Copy

Form Number: 433_2
Rev. 10-19-07

00104324

1000008007

COOLER INSPECTION

Microbac

Received: 08/05/2010 09:58
Delivery Method: UPS
Opened By: Brenda Greenwalt
Comments:

Login(s): L10080104

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0014914	G	4.0	1Z66V7250191214539	5888 5889	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	No	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	Yes	Were correct perservatives used? (water only)
10	Yes	Were pH ranges acceptable? (voa's excluded)
11	Yes	Were VOA samples free of headspace (<6mm)?

Discrepancies:

6	Received 1 broken RSK for ID 47WW30; Received 1 broken SVOC for ID 47WW14; Did not received (2) Trip Blanks.	Proceed. Client was notified about the missing trip blanks.

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080104
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 12-AUG-2010

Samplenum	Container ID	Products
L10080104-01	722464	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 14:22	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:44	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 14:22	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:44	JKT	MRT

Samplenum	Container ID	Products
L10080104-01	722465	RSK175

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 12:57	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:43	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 12:57	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:43	JKT	MRT

Samplenum	Container ID	Products
L10080104-01	722466	8270

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	EXT	06-AUG-2010 10:33	CSH	RLK

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080104
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 12-AUG-2010

Samplenum	Container ID	Products
L10080104-01	722467	300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	SEM	05-AUG-2010 12:16	HAV	RLK
3	STORE	SEM	A1	09-AUG-2010 11:44	RLK	JWR

Samplenum	Container ID	Products
L10080104-01	722468	ALK

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	WET	06-AUG-2010 08:33	DIH	RLK
3	STORE	WET	A1	16-AUG-2010 08:45	RLK	DIH

Samplenum	Container ID	Products
L10080104-01	722469	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	SEM	10-AUG-2010 13:38	WTD	RLK
3	STORE	SEM	A1	12-AUG-2010 15:34	RLK	WTD

Samplenum	Container ID	Products
L10080104-01	722470	TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	WET	06-AUG-2010 10:43	JBK	RLK
3	STORE	WET	A1	16-AUG-2010 08:46	RLK	DIH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080104
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 12-AUG-2010

Samplenum	Container ID	Products
L10080104-01	722471	AG-MS AL AS-MS BA-MS BE-AX CA CD-MS CO-AX CR-M

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	PREP	W1	DIG	06-AUG-2010 05:04	REK	AZH
3	ANALYZ*	DIG	METALS	06-AUG-2010 11:35	PDM	REK
4	STORE	DIG	A1	09-AUG-2010 14:43	RLK	ERE

Sample extract/digestate

Samplenum	Container ID	Products
L10080104-02	722472	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 14:22	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:44	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 14:22	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:44	JKT	MRT

Samplenum	Container ID	Products
L10080104-02	722473	RSK175

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 12:57	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:43	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 12:57	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:43	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 12:57	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:43	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080104
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 12-AUG-2010

Samplenum	Container ID	Products
L10080104-02	722474	8270

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	EXT	06-AUG-2010 10:33	CSH	RLK

Samplenum	Container ID	Products
L10080104-02	722475	300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	SEM	05-AUG-2010 12:15	HAV	RLK
3	STORE	SEM	A1	09-AUG-2010 11:44	RLK	JWR

Samplenum	Container ID	Products
L10080104-02	722476	ALK

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	WET	06-AUG-2010 08:33	DIH	RLK
3	STORE	WET	A1	16-AUG-2010 08:45	RLK	DIH

Samplenum	Container ID	Products
L10080104-02	722477	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	SEM	10-AUG-2010 13:38	WTD	RLK
3	STORE	SEM	A1	12-AUG-2010 15:34	RLK	WTD

Samplenum	Container ID	Products
L10080104-02	722478	TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	WET	06-AUG-2010 10:43	JBK	RLK
3	STORE	WET	A1	09-AUG-2010 08:27	JKT	JBK

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080104
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 12-AUG-2010

Samplenum	Container ID	Products
L10080104-02	722479	AG-MS AL AS-MS BA-MS BE-AX CA CD-MS CO-AX CR-M

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	PREP	W1	DIG	06-AUG-2010 05:04	REK	AZH
3	ANALYZ*	DIG	METALS	06-AUG-2010 11:35	PDM	REK
4	STORE	DIG	A1	09-AUG-2010 14:43	RLK	ERE

Sample extract/digestate

Samplenum	Container ID	Products
L10080104-03	722480	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 14:22	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:44	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 14:22	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:44	JKT	MRT

Samplenum	Container ID	Products
L10080104-03	722481	RSK175

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 12:57	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:43	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 12:57	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:43	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080104
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 12-AUG-2010

Samplenum	Container ID	Products
L10080104-03	722482	8270

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	EXT	06-AUG-2010 10:33	CSH	RLK

Samplenum	Container ID	Products
L10080104-03	722483	300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	SEM	05-AUG-2010 12:15	HAV	RLK
3	STORE	SEM	A1	09-AUG-2010 11:44	RLK	JWR

Samplenum	Container ID	Products
L10080104-03	722484	ALK

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	WET	06-AUG-2010 08:33	DIH	RLK
3	STORE	WET	A1	16-AUG-2010 08:45	RLK	DIH

Samplenum	Container ID	Products
L10080104-03	722485	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	SEM	10-AUG-2010 13:38	WTD	RLK
3	STORE	SEM	A1	12-AUG-2010 15:34	RLK	WTD

Samplenum	Container ID	Products
L10080104-03	722486	TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	WET	06-AUG-2010 10:43	JBK	RLK
3	STORE	WET	A1	09-AUG-2010 08:27	JKT	JBK

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080104
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 12-AUG-2010

Samplenum	Container ID	Products
L10080104-03	722487	AG-MS AL AS-MS BA-MS BE-AX CA CD-MS CO-AX CR-M

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	PREP	W1	DIG	06-AUG-2010 05:04	REK	AZH
3	ANALYZ*	DIG	METALS	06-AUG-2010 11:35	PDM	REK
4	STORE	DIG	A1	09-AUG-2010 14:43	RLK	ERE

Sample extract/digestate

Samplenum	Container ID	Products
L10080104-04	722488	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 14:22	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:44	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 14:22	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:44	JKT	MRT

Samplenum	Container ID	Products
L10080104-04	722489	RSK175

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 12:57	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:43	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 12:57	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:43	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 12:57	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:43	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080104
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 12-AUG-2010

Samplenum	Container ID	Products
L10080104-04	722490	8270

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	EXT	06-AUG-2010 10:33	CSH	RLK

Samplenum	Container ID	Products
L10080104-04	722491	300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	SEM	05-AUG-2010 12:15	HAV	RLK
3	STORE	SEM	A1	09-AUG-2010 11:44	RLK	JWR

Samplenum	Container ID	Products
L10080104-04	722492	ALK

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	WET	06-AUG-2010 08:33	DIH	RLK
3	STORE	WET	A1	16-AUG-2010 08:45	RLK	DIH

Samplenum	Container ID	Products
L10080104-04	722493	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	SEM	10-AUG-2010 13:38	WTD	RLK
3	STORE	SEM	A1	12-AUG-2010 15:34	RLK	WTD

Samplenum	Container ID	Products
L10080104-04	722494	TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	WET	06-AUG-2010 10:43	JBK	RLK
3	STORE	WET	A1	09-AUG-2010 08:27	JKT	JBK

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080104
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 12-AUG-2010

Samplenum	Container ID	Products
L10080104-04	722495	AG-MS AL AS-MS BA-MS BE-AX CA CD-MS CO-AX CR-M

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	PREP	W1	DIG	06-AUG-2010 05:04	REK	AZH
3	ANALYZ*	DIG	METALS	06-AUG-2010 11:35	PDM	REK
4	STORE	DIG	A1	09-AUG-2010 14:43	RLK	ERE

Sample extract/digestate

Samplenum	Container ID	Products
L10080104-05	722496	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 14:22	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:44	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 14:22	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:44	JKT	MRT

Samplenum	Container ID	Products
L10080104-05	722497	RSK175

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 12:57	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:42	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 12:58	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:42	JKT	MRT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	05-AUG-2010 12:03	JKT	
2	ANALYZ	V1	ORG4	05-AUG-2010 12:58	PWD	JKT
3	STORE	ORG4	A1	19-AUG-2010 07:43	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080104
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 12-AUG-2010

Samplenum	Container ID	Products
L10080104-05	722498	300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	SEM	05-AUG-2010 12:15	HAV	RLK
3	STORE	SEM	A1	09-AUG-2010 11:45	RLK	JWR

Samplenum	Container ID	Products
L10080104-05	722499	ALK

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	WET	06-AUG-2010 08:33	DIH	RLK
3	STORE	WET	A1	16-AUG-2010 08:45	RLK	DIH

Samplenum	Container ID	Products
L10080104-05	722500	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	SEM	10-AUG-2010 13:38	WTD	RLK
3	STORE	SEM	A1	12-AUG-2010 15:34	RLK	WTD

Samplenum	Container ID	Products
L10080104-05	722501	TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	ANALYZ	W1	WET	06-AUG-2010 10:43	JBK	RLK
3	STORE	WET	A1	09-AUG-2010 08:27	JKT	JBK

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080104
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 12-AUG-2010

Samplenum	Container ID	Products
L10080104-05	722502	AG-MS AL AS-MS BA-MS BE-AX CA CD-MS CO-AX CR-M

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	05-AUG-2010 12:03	JKT	
2	PREP	W1	DIG	06-AUG-2010 05:04	REK	AZH
3	ANALYZ*	DIG	METALS	06-AUG-2010 11:35	PDM	REK
4	STORE	DIG	A1	09-AUG-2010 14:43	RLK	ERE

Sample extract/digestate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data

Microbac

Microbac Laboratories
Case Narrative
Generated at 08/13/2010 07:37

Login Number: L10080104

Department: Volatiles

Analyst: Mary Schilling

METHOD
Preparation SW-846 5030C/5035A

Analysis SW-846 8260B

HOLDING TIMES
Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION
Sample preparation proceeded normally.

CALIBRATION
Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All analytes met the ICV acceptance criteria, except those listed below.

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
WG338776-12	HPMS6	08/03/2010	CARBON DISULFIDE	REG		(+)35.9	*	30
WG339237-12	HPMS10	08/09/2010	DICHLORODIFLUOROMETHANE	REG		(-)33.4	*	30

Continuing Calibration and Tune: All analytes met the CCV acceptance criteria for % drift, except those listed below.

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
WG339247-02	HPMS6	08/09/2010	CARBON DISULFIDE	REG		(+)55.7	*	40
WG339247-02	HPMS6	08/09/2010	VINYL ACETATE	REG		(+)77.2	*	40

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All analytes met the LCS acceptance criteria for % recovery and relative percent difference, except those listed below. An astrisk (*) denotes that the value is relative percent difference.

Sample	Instrument	Date	Analyte	AType	CType	Rec/RPD	Lower	Upper
WG339250-02	HPMS6	08/09/2010	CARBON DISULFIDE	REG		143	58	128

Matrix Spikes: The MS/MSD results were not associated with this sample delivery group (SDG), due to insufficient volume of sample. The laboratory included an LCS and LCS duplicate in the preparation batch in lieu of the NELAC prescribed MS/MSD. Microbac Laboratories recommends site specific MS/MSD samples to avoid possible data qualifications.

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Other: Samples 01, 02, 04, 05, were run at a dilution.

Manual Integration Reason Codes
Reason #1: Data System Fails to Select Correct Peak. In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak. This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

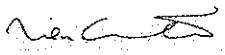
Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline. There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous. Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 9846
Approved By: Michael Albertson



LABORATORY REPORT

L10080104

08/19/10 15:49

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47WW30-100804	L10080104-01	8260B	10	05-AUG-10
47WW13-100804	L10080104-02	8260B	10	05-AUG-10
47WW13-100804	L10080104-02	8260B	5	05-AUG-10
EQUIPMENT RINSE-100804	L10080104-03	8260B	1	05-AUG-10
47WW14-100804	L10080104-04	8260B	10	05-AUG-10
47WW14-100804	L10080104-04	8260B	1	05-AUG-10
47WW14-100804-FD	L10080104-05	8260B	1	05-AUG-10
47WW14-100804-FD	L10080104-05	8260B	5	05-AUG-10

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-01
Client ID: 47WW30-100804
Matrix: Water
Workgroup Number: WG339250
Collect Date: 08/04/2010 12:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 10
Units: ug/L

Instrument: HPMS6
Prep Date: 08/09/2010 20:29
Cal Date: 08/03/2010 20:48
Run Date: 08/09/2010 20:29
File ID: 6M92958

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	100	25.0
Benzene	71-43-2		U	10.0	1.25
Bromobenzene	108-86-1		U	10.0	1.25
Bromochloromethane	74-97-5		U	10.0	2.00
Bromodichloromethane	75-27-4		U	10.0	2.50
Bromoform	75-25-2		U	10.0	5.00
Bromomethane	74-83-9		U	10.0	5.00
2-Butanone	78-93-3		U	100	25.0
n-Butylbenzene	104-51-8		U	10.0	2.50
sec-Butylbenzene	135-98-8		U	10.0	2.50
tert-Butylbenzene	98-06-6		U	10.0	2.50
Carbon disulfide	75-15-0		U	10.0	5.00
Carbon tetrachloride	56-23-5		U	10.0	2.50
Chlorobenzene	108-90-7		U	10.0	1.25
Chlorodibromomethane	124-48-1		U	10.0	2.50
Chloroethane	75-00-3		U	10.0	5.00
2-Chloroethyl vinyl ether	110-75-8		U	100	20.0
Chloroform	67-66-3		U	10.0	1.25
Chloromethane	74-87-3		U	10.0	5.00
2-Chlorotoluene	95-49-8		U	10.0	1.25
4-Chlorotoluene	106-43-4		U	10.0	2.50
1,2-Dibromo-3-chloropropane	96-12-8		U	50.0	10.0
1,2-Dibromoethane	106-93-4		U	10.0	2.50
Dibromomethane	74-95-3		U	10.0	2.50
1,2-Dichlorobenzene	95-50-1		U	10.0	1.25
1,3-Dichlorobenzene	541-73-1		U	10.0	2.50
1,4-Dichlorobenzene	106-46-7		U	10.0	1.25
Dichlorodifluoromethane	75-71-8		U	10.0	2.50
1,1-Dichloroethane	75-34-3		U	10.0	1.25
1,2-Dichloroethane	107-06-2		U	10.0	2.50
1,1-Dichloroethene	75-35-4		U	10.0	5.00
cis-1,2-Dichloroethene	156-59-2	6.97	J	10.0	2.50
trans-1,2-Dichloroethene	156-60-5		U	10.0	2.50
1,2-Dichloropropane	78-87-5		U	10.0	2.00
1,3-Dichloropropane	142-28-9		U	10.0	2.00
2,2-Dichloropropane	594-20-7		U	10.0	2.50
cis-1,3-Dichloropropene	10061-01-5		U	10.0	2.50
trans-1,3-Dichloropropene	10061-02-6		U	10.0	5.00
1,1-Dichloropropene	563-58-6		U	10.0	2.50
Ethylbenzene	100-41-4		U	10.0	2.50
2-Hexanone	591-78-6		U	100	25.0
Hexachlorobutadiene	87-68-3		U	10.0	2.50
Isopropylbenzene	98-82-8		U	10.0	2.50
p-Isopropyltoluene	99-87-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	100	25.0
Methylene chloride	75-09-2		U	50.0	2.50
Naphthalene	91-20-3		U	10.0	2.00
n-Propylbenzene	103-65-1		U	10.0	1.25
Styrene	100-42-5		U	10.0	1.25
1,1,1,2-Tetrachloroethane	630-20-6		U	10.0	2.50
1,1,2,2-Tetrachloroethane	79-34-5		U	10.0	2.00
Tetrachloroethene	127-18-4		U	10.0	2.50
Toluene	108-88-3		U	10.0	2.50
1,2,3-Trichlorobenzene	87-61-6		U	10.0	1.50
1,2,4-Trichlorobenzene	120-82-1		U	10.0	2.00
1,1,1-Trichloroethane	71-55-6		U	10.0	2.50
1,1,2-Trichloroethane	79-00-5		U	10.0	2.50
Trichloroethene	79-01-6	1100		10.0	2.50
Trichlorofluoromethane	75-69-4		U	10.0	2.50

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8/9/2010

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-01
Client ID: 47WW30-100804
Matrix: Water
Workgroup Number: WG339250
Collect Date: 08/04/2010 12:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 10
Units: ug/L

Instrument: HPMS6
Prep Date: 08/09/2010 20:29
Cal Date: 08/03/2010 20:48
Run Date: 08/09/2010 20:29
File ID: 6M92958

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	10.0	5.00
1,2,4-Trimethylbenzene	95-63-6		U	10.0	2.50
1,3,5-Trimethylbenzene	108-67-8		U	10.0	2.50
Vinyl acetate	108-05-4		U	100	25.0
Vinyl chloride	75-01-4		U	10.0	2.50
o-Xylene	95-47-6		U	10.0	2.50
m-,p-Xylene	179601-23-1		U	10.0	5.00

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	95.2	86	118	
1,2-Dichloroethane-d4	93.7	80	120	
Toluene-d8	95.8	88	110	
4-Bromofluorobenzene	104	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

8/9/10

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-02
Client ID: 47WW13-100804
Matrix: Water
Workgroup Number: WG339327
Collect Date: 08/04/2010 14:15
Sample Tag: DL02

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 10
Units: ug/L

Instrument: HPMS8
Prep Date: 08/10/2010 11:16
Cal Date: 08/05/2010 19:10
Run Date: 08/10/2010 11:16
File ID: 8M363182

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	100	25.0
Benzene	71-43-2		U	10.0	1.25
Bromobenzene	108-86-1		U	10.0	1.25
Bromochloromethane	74-97-5		U	10.0	2.00
Bromodichloromethane	75-27-4		U	10.0	2.50
Bromoform	75-25-2		U	10.0	5.00
Bromomethane	74-83-9		U	10.0	5.00
2-Butanone	78-93-3		U	100	25.0
n-Butylbenzene	104-51-8		U	10.0	2.50
sec-Butylbenzene	135-98-8		U	10.0	2.50
tert-Butylbenzene	98-06-6		U	10.0	2.50
Carbon disulfide	75-15-0		U	10.0	5.00
Carbon tetrachloride	56-23-5		U	10.0	2.50
Chlorobenzene	108-90-7		U	10.0	1.25
Chlorodibromomethane	124-48-1		U	10.0	2.50
Chloroethane	75-00-3		U	10.0	5.00
2-Chloroethyl vinyl ether	110-75-8		U	100	20.0
Chloroform	67-66-3		U	10.0	1.25
Chloromethane	74-87-3		U	10.0	5.00
2-Chlorotoluene	95-49-8		U	10.0	1.25
4-Chlorotoluene	106-43-4		U	10.0	2.50
1,2-Dibromo-3-chloropropane	96-12-8		U	50.0	10.0
1,2-Dibromoethane	106-93-4		U	10.0	2.50
Dibromomethane	74-95-3		U	10.0	2.50
1,2-Dichlorobenzene	95-50-1		U	10.0	1.25
1,3-Dichlorobenzene	541-73-1		U	10.0	2.50
1,4-Dichlorobenzene	106-46-7		U	10.0	1.25
Dichlorodifluoromethane	75-71-8		U	10.0	2.50
1,1-Dichloroethane	75-34-3	3.70	J	10.0	1.25
1,2-Dichloroethane	107-06-2		U	10.0	2.50
1,1-Dichloroethene	75-35-4	5.61	J	10.0	5.00
cis-1,2-Dichloroethene	156-59-2	1440		10.0	2.50
trans-1,2-Dichloroethene	156-60-5	20.2		10.0	2.50
1,2-Dichloropropane	78-87-5		U	10.0	2.00
1,3-Dichloropropane	142-28-9		U	10.0	2.00
2,2-Dichloropropane	594-20-7		U	10.0	2.50
cis-1,3-Dichloropropene	10061-01-5		U	10.0	2.50
trans-1,3-Dichloropropene	10061-02-6		U	10.0	5.00
1,1-Dichloropropene	563-58-6		U	10.0	2.50
Ethylbenzene	100-41-4		U	10.0	2.50
2-Hexanone	591-78-6		U	100	25.0
Hexachlorobutadiene	87-68-3		U	10.0	2.50
Isopropylbenzene	98-82-8		U	10.0	2.50
p-Isopropyltoluene	99-87-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	100	25.0
Methylene chloride	75-09-2	3.14	J	50.0	2.50
Naphthalene	91-20-3		U	10.0	2.00
n-Propylbenzene	103-65-1		U	10.0	1.25
Styrene	100-42-5		U	10.0	1.25
1,1,1,2-Tetrachloroethane	630-20-6		U	10.0	2.50
1,1,2,2-Tetrachloroethane	79-34-5		U	10.0	2.00
Tetrachloroethene	127-18-4		U	10.0	2.50
Toluene	108-88-3		U	10.0	2.50
1,2,3-Trichlorobenzene	87-61-6		U	10.0	1.50
1,2,4-Trichlorobenzene	120-82-1		U	10.0	2.00
1,1,1-Trichloroethane	71-55-6		U	10.0	2.50
1,1,2-Trichloroethane	79-00-5		U	10.0	2.50
Trichloroethene	79-01-6	626		10.0	2.50
Trichlorofluoromethane	75-69-4		U	10.0	2.50

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Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-02
Client ID: 47WWI3-100804
Matrix: Water
Workgroup Number: WG339327
Collect Date: 08/04/2010 14:15
Sample Tag: DL02

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 10
Units: ug/L

Instrument: HPMS8
Prep Date: 08/10/2010 11:16
Cal Date: 08/05/2010 19:10
Run Date: 08/10/2010 11:16
File ID: 8M363182

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	10.0	5.00
1,2,4-Trimethylbenzene	95-63-6		U	10.0	2.50
1,3,5-Trimethylbenzene	108-67-8		U	10.0	2.50
Vinyl acetate	108-05-4		U	100	25.0
Vinyl chloride	75-01-4	220		10.0	2.50
o-Xylene	95-47-6		U	10.0	2.50
m-,p-Xylene	179601-23-1		U	10.0	5.00

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	101	86	118	
1,2-Dichloroethane-d4	99.1	80	120	
Toluene-d8	98.4	88	110	
4-Bromofluorobenzene	96.7	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

8/19/2010

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-02
Client ID: 47WW13-100804
Matrix: Water
Workgroup Number: WG339250
Collect Date: 08/04/2010 14:15
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 5
Units: ug/L

Instrument: HPMS6
Prep Date: 08/09/2010 21:02
Cal Date: 08/03/2010 20:48
Run Date: 08/09/2010 21:02
File ID: 6M92959

Analyte	CAS. Number	Result	Qual	PQL	SDL	
Acetone	67-64-1		U	50.0	12.5	
Benzene	71-43-2		U	5.00	0.625	
Bromobenzene	108-86-1		U	5.00	0.625	
Bromochloromethane	74-97-5		U	5.00	1.00	
Bromodichloromethane	75-27-4		U	5.00	1.25	
Bromoform	75-25-2		U	5.00	2.50	
Bromomethane	74-83-9		U	5.00	2.50	
2-Butanone	78-93-3		U	50.0	12.5	
n-Butylbenzene	104-51-8		U	5.00	1.25	
sec-Butylbenzene	135-98-8		U	5.00	1.25	
tert-Butylbenzene	98-06-6		U	5.00	1.25	
Carbon disulfide	75-15-0	20.4		5.00	2.50	
Carbon tetrachloride	56-23-5		U	5.00	1.25	
Chlorobenzene	108-90-7		U	5.00	0.625	
Chlorodibromomethane	124-48-1		U	5.00	1.25	
Chloroethane	75-00-3		U	5.00	2.50	
2-Chloroethyl vinyl ether	110-75-8		U	50.0	10.0	
Chloroform	67-66-3		U	5.00	0.625	
Chloromethane	74-87-3		U	5.00	2.50	
2-Chlorotoluene	95-49-8		U	5.00	0.625	
4-Chlorotoluene	106-43-4		U	5.00	1.25	
1,2-Dibromo-3-chloropropane	96-12-8		U	25.0	5.00	
1,2-Dibromoethane	106-93-4		U	5.00	1.25	
Dibromomethane	74-95-3		U	5.00	1.25	
1,2-Dichlorobenzene	95-50-1		U	5.00	0.625	
1,3-Dichlorobenzene	541-73-1		U	5.00	1.25	
1,4-Dichlorobenzene	106-46-7		U	5.00	0.625	
Dichlorodifluoromethane	75-71-8		U	5.00	1.25	
1,1-Dichloroethane	75-34-3	3.40	J	5.00	0.625	J
1,2-Dichloroethane	107-06-2		U	5.00	1.25	
1,1-Dichloroethene	75-35-4	5.51		5.00	2.50	
cis-1,2-Dichloroethene	156-59-2	1620	I	5.00	1.25	R
trans-1,2-Dichloroethene	156-60-5	18.8		5.00	1.25	
1,2-Dichloropropane	78-87-5		U	5.00	1.00	
1,3-Dichloropropane	142-28-9		U	5.00	1.00	
2,2-Dichloropropane	594-20-7		U	5.00	1.25	
cis-1,3-Dichloropropene	10061-01-5		U	5.00	1.25	
trans-1,3-Dichloropropene	10061-02-6		U	5.00	2.50	
1,1-Dichloropropene	563-58-6		U	5.00	1.25	
Ethylbenzene	100-41-4		U	5.00	1.25	
2-Hexanone	591-78-6		U	50.0	12.5	
Hexachlorobutadiene	87-68-3		U	5.00	1.25	
Isopropylbenzene	98-82-8		U	5.00	1.25	
p-Isopropyltoluene	99-87-6		U	5.00	1.25	
4-Methyl-2-pentanone	108-10-1		U	50.0	12.5	
Methylene chloride	75-09-2		U	25.0	1.25	
Naphthalene	91-20-3		U	5.00	1.00	
n-Propylbenzene	103-65-1		U	5.00	0.625	
Styrene	100-42-5		U	5.00	0.625	
1,1,1,2-Tetrachloroethane	630-20-6		U	5.00	1.25	
1,1,2,2-Tetrachloroethane	79-34-5		U	5.00	1.00	
Tetrachloroethene	127-18-4		U	5.00	1.25	
Toluene	108-88-3		U	5.00	1.25	
1,2,3-Trichlorobenzene	87-61-6		U	5.00	0.750	
1,2,4-Trichlorobenzene	120-82-1		U	5.00	1.00	
1,1,1-Trichloroethane	71-55-6		U	5.00	1.25	
1,1,2-Trichloroethane	79-00-5		U	5.00	1.25	
Trichloroethene	79-01-6	647		5.00	1.25	
Trichlorofluoromethane	75-69-4		U	5.00	1.25	

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Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-02
Client ID: 47WW13-100804
Matrix: Water
Workgroup Number: WG339250
Collect Date: 08/04/2010 14:15
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 5
Units: ug/L

Instrument: HPMS6
Prep Date: 08/09/2010 21:02
Cal Date: 08/03/2010 20:48
Run Date: 08/09/2010 21:02
File ID: 6M92959

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	5.00	2.50
1,2,4-Trimethylbenzene	95-63-6		U	5.00	1.25
1,3,5-Trimethylbenzene	108-67-8		U	5.00	1.25
Vinyl acetate	108-05-4		U	50.0	12.5
Vinyl chloride	75-01-4	249		5.00	1.25
o-Xylene	95-47-6		U	5.00	1.25
m-,p-Xylene	179601-23-1		U	5.00	2.50

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	94.5	86	118	
1,2-Dichloroethane-d4	94.2	80	120	
Toluene-d8	95.1	88	110	
4-Bromofluorobenzene	101	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL
I Semiquantitative result (out of instrument calibration range)

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-03
Client ID: EQUIPMENT RINSE-100804
Matrix: Water
Workgroup Number: WG339250
Collect Date: 08/04/2010 16:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS6
Prep Date: 08/09/2010 19:24
Cal Date: 08/03/2010 20:48
Run Date: 08/09/2010 19:24
File ID: 6M92956

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

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Report Number: **L10080104**
Report Date : **August 19, 2010**

Sample Number: **L10080104-03**
Client ID: **EQUIPMENT RINSE-100804**
Matrix: **Water**
Workgroup Number: **WG339250**
Collect Date: **08/04/2010 16:30**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS6**
Prep Date: **08/09/2010 19:24**
Cal Date: **08/03/2010 20:48**
Run Date: **08/09/2010 19:24**
File ID: **6M92956**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	95.5	86	118	
1,2-Dichloroethane-d4	96.5	80	120	
Toluene-d8	94.6	88	110	
4-Bromofluorobenzene	103	86	115	

U Not detected at or above adjusted sample detection limit

8/9/10

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-04
Client ID: 47WW14-100804
Matrix: Water
Workgroup Number: WG339327
Collect Date: 08/04/2010 15:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 10
Units: ug/L

Instrument: HPMS8
Prep Date: 08/10/2010 18:18
Cal Date: 08/05/2010 19:10
Run Date: 08/10/2010 18:18
File ID: 8M363195

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	100	25.0
Benzene	71-43-2	3.22	J	10.0	1.25
Bromobenzene	108-86-1		U	10.0	1.25
Bromochloromethane	74-97-5		U	10.0	2.00
Bromodichloromethane	75-27-4		U	10.0	2.50
Bromoform	75-25-2		U	10.0	5.00
Bromomethane	74-83-9		U	10.0	5.00
2-Butanone	78-93-3		U	100	25.0
n-Butylbenzene	104-51-8		U	10.0	2.50
sec-Butylbenzene	135-98-8		U	10.0	2.50
tert-Butylbenzene	98-06-6		U	10.0	2.50
Carbon disulfide	75-15-0		U	10.0	5.00
Carbon tetrachloride	56-23-5		U	10.0	2.50
Chlorobenzene	108-90-7		U	10.0	1.25
Chlorodibromomethane	124-48-1		U	10.0	2.50
Chloroethane	75-00-3		U	10.0	5.00
2-Chloroethyl vinyl ether	110-75-8		U	100	20.0
Chloroform	67-66-3		U	10.0	1.25
Chloromethane	74-87-3		U	10.0	5.00
2-Chlorotoluene	95-49-8		U	10.0	1.25
4-Chlorotoluene	106-43-4		U	10.0	2.50
1,2-Dibromo-3-chloropropane	96-12-8		U	50.0	10.0
1,2-Dibromoethane	106-93-4		U	10.0	2.50
Dibromomethane	74-95-3		U	10.0	2.50
1,2-Dichlorobenzene	95-50-1		U	10.0	1.25
1,3-Dichlorobenzene	541-73-1		U	10.0	2.50
1,4-Dichlorobenzene	106-46-7		U	10.0	1.25
Dichlorodifluoromethane	75-71-8		U	10.0	2.50
1,1-Dichloroethane	75-34-3		U	10.0	1.25
1,2-Dichloroethane	107-06-2		U	10.0	2.50
1,1-Dichloroethene	75-35-4		U	10.0	5.00
cis-1,2-Dichloroethene	156-59-2	125		10.0	2.50
trans-1,2-Dichloroethene	156-60-5		U	10.0	2.50
1,2-Dichloropropane	78-87-5		U	10.0	2.00
1,3-Dichloropropane	142-28-9		U	10.0	2.00
2,2-Dichloropropane	594-20-7		U	10.0	2.50
cis-1,3-Dichloropropene	10061-01-5		U	10.0	2.50
trans-1,3-Dichloropropene	10061-02-6		U	10.0	5.00
1,1-Dichloropropene	563-58-6		U	10.0	2.50
Ethylbenzene	100-41-4		U	10.0	2.50
2-Hexanone	591-78-6		U	100	25.0
Hexachlorobutadiene	87-68-3		U	10.0	2.50
Isopropylbenzene	98-82-8		U	10.0	2.50
p-Isopropyltoluene	99-87-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	100	25.0
Methylene chloride	75-09-2	2.78	J	50.0	2.50
Naphthalene	91-20-3		U	10.0	2.00
n-Propylbenzene	103-65-1		U	10.0	1.25
Styrene	100-42-5		U	10.0	1.25
1,1,1,2-Tetrachloroethane	630-20-6		U	10.0	2.50
1,1,2,2-Tetrachloroethane	79-34-5		U	10.0	2.00
Tetrachloroethene	127-18-4		U	10.0	2.50
Toluene	108-88-3	2.50	J	10.0	2.50
1,2,3-Trichlorobenzene	87-61-6		U	10.0	1.50
1,2,4-Trichlorobenzene	120-82-1		U	10.0	2.00
1,1,1-Trichloroethane	71-55-6		U	10.0	2.50
1,1,2-Trichloroethane	79-00-5		U	10.0	2.50
Trichloroethene	79-01-6	353		10.0	2.50
Trichlorofluoromethane	75-69-4		U	10.0	2.50

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Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-04
Client ID: 47WW14-100804
Matrix: Water
Workgroup Number: WG339327
Collect Date: 08/04/2010 15:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 10
Units: ug/L

Instrument: HPMS8
Prep Date: 08/10/2010 18:18
Cal Date: 08/05/2010 19:10
Run Date: 08/10/2010 18:18
File ID: 8M363195

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	10.0	5.00
1,2,4-Trimethylbenzene	95-63-6		U	10.0	2.50
1,3,5-Trimethylbenzene	108-67-8		U	10.0	2.50
Vinyl acetate	108-05-4		U	100	25.0
Vinyl chloride	75-01-4	13.2		10.0	2.50
o-Xylene	95-47-6		U	10.0	2.50
m-,p-Xylene	179601-23-1		U	10.0	5.00

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	100	86	118	
1,2-Dichloroethane-d4	99.6	80	120	
Toluene-d8	97.8	88	110	
4-Bromofluorobenzene	96.3	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

9/9/10

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-04
Client ID: 47WW14-100804
Matrix: Water
Workgroup Number: WG339250
Collect Date: 08/04/2010 15:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS6
Prep Date: 08/09/2010 19:56
Cal Date: 08/03/2010 20:48
Run Date: 08/09/2010 19:56
File ID: 6M92957

Analyte	CAS. Number	Result	Qual	PQL	SDL	
Acetone	67-64-1		U	10.0	2.50	
Benzene	71-43-2		U	1.00	0.125	
Bromobenzene	108-86-1		U	1.00	0.125	
Bromochloromethane	74-97-5		U	1.00	0.200	
Bromodichloromethane	75-27-4		U	1.00	0.250	
Bromoform	75-25-2		U	1.00	0.500	
Bromomethane	74-83-9		U	1.00	0.500	
2-Butanone	78-93-3		U	10.0	2.50	
n-Butylbenzene	104-51-8		U	1.00	0.250	
sec-Butylbenzene	135-98-8		U	1.00	0.250	
tert-Butylbenzene	98-06-6		U	1.00	0.250	
Carbon disulfide	75-15-0		U	1.00	0.500	
Carbon tetrachloride	56-23-5		U	1.00	0.250	
Chlorobenzene	108-90-7		U	1.00	0.125	
Chlorodibromomethane	124-48-1		U	1.00	0.250	
Chloroethane	75-00-3		U	1.00	0.500	
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00	
Chloroform	67-66-3		U	1.00	0.125	
Chloromethane	74-87-3		U	1.00	0.500	
2-Chlorotoluene	95-49-8		U	1.00	0.125	
4-Chlorotoluene	106-43-4		U	1.00	0.250	
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00	
1,2-Dibromoethane	106-93-4		U	1.00	0.250	
Dibromomethane	74-95-3		U	1.00	0.250	
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125	
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250	
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125	
Dichlorodifluoromethane	75-71-8		U	1.00	0.250	
1,1-Dichloroethane	75-34-3	0.784	J	1.00	0.125	J
1,2-Dichloroethane	107-06-2		U	1.00	0.250	
1,1-Dichloroethene	75-35-4	2.77		1.00	0.500	
cis-1,2-Dichloroethene	156-59-2	140		1.00	0.250	J
trans-1,2-Dichloroethene	156-60-5	0.972	J	1.00	0.250	
1,2-Dichloropropane	78-87-5		U	1.00	0.200	
1,3-Dichloropropane	142-28-9		U	1.00	0.200	
2,2-Dichloropropane	594-20-7		U	1.00	0.250	
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250	
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500	
1,1-Dichloropropene	563-58-6		U	1.00	0.250	
Ethylbenzene	100-41-4		U	1.00	0.250	
2-Hexanone	591-78-6		U	10.0	2.50	
Hexachlorobutadiene	87-68-3		U	1.00	0.250	
Isopropylbenzene	98-82-8		U	1.00	0.250	
p-Isopropyltoluene	99-87-6		U	1.00	0.250	
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50	
Methylene chloride	75-09-2		U	5.00	0.250	
Naphthalene	91-20-3		U	1.00	0.200	
n-Propylbenzene	103-65-1		U	1.00	0.125	
Styrene	100-42-5		U	1.00	0.125	
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250	
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200	
Tetrachloroethene	127-18-4		U	1.00	0.250	
Toluene	108-88-3		U	1.00	0.250	
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150	
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200	
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250	
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250	
Trichloroethene	79-01-6	434	I	1.00	0.250	R
Trichlorofluoromethane	75-69-4		U	1.00	0.250	

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Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-04
Client ID: 47WW14-100804
Matrix: Water
Workgroup Number: WG339250
Collect Date: 08/04/2010 15:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS6
Prep Date: 08/09/2010 19:56
Cal Date: 08/03/2010 20:48
Run Date: 08/09/2010 19:56
File ID: 6M92957

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4	15.2		1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	96.2	86	118	
1,2-Dichloroethane-d4	94.1	80	120	
Toluene-d8	95.8	88	110	
4-Bromofluorobenzene	104	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL
I Semiquantitative result (out of instrument calibration range)

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-05
Client ID: 47WW14-100804-FD
Matrix: Water
Workgroup Number: WG339340
Collect Date: 08/04/2010 15:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/10/2010 20:33
Cal Date: 08/09/2010 20:24
Run Date: 08/10/2010 20:33
File ID: 10M81192

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3	0.755	J	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4	2.73		1.00	0.500
cis-1,2-Dichloroethene	156-59-2	133		1.00	0.250
trans-1,2-Dichloroethene	156-60-5	1.01		1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6	384	I	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

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8/20/10

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-05
Client ID: 47WW14-100804-FD
Matrix: Water
Workgroup Number: WG339340
Collect Date: 08/04/2010 15:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/10/2010 20:33
Cal Date: 08/09/2010 20:24
Run Date: 08/10/2010 20:33
File ID: 10M81192

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4	14.1		1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	109	86	118	
1,2-Dichloroethane-d4	110	80	120	
Toluene-d8	105	88	110	
4-Bromofluorobenzene	99.4	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL
I Semiquantitative result (out of instrument calibration range)

8/20/10

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-05
Client ID: 47WW14-100804-FD
Matrix: Water
Workgroup Number: WG339465
Collect Date: 08/04/2010 15:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 5
Units: ug/L

Instrument: HPMS10
Prep Date: 08/11/2010 14:26
Cal Date: 08/09/2010 20:24
Run Date: 08/11/2010 14:26
File ID: 10M81214

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	50.0	12.5
Benzene	71-43-2		U	5.00	0.625
Bromobenzene	108-86-1		U	5.00	0.625
Bromochloromethane	74-97-5		U	5.00	1.00
Bromodichloromethane	75-27-4		U	5.00	1.25
Bromoform	75-25-2		U	5.00	2.50
Bromomethane	74-83-9	3.09	J	5.00	2.50
2-Butanone	78-93-3		U	50.0	12.5
n-Butylbenzene	104-51-8		U	5.00	1.25
sec-Butylbenzene	135-98-8		U	5.00	1.25
tert-Butylbenzene	98-06-6		U	5.00	1.25
Carbon disulfide	75-15-0		U	5.00	2.50
Carbon tetrachloride	56-23-5		U	5.00	1.25
Chlorobenzene	108-90-7		U	5.00	0.625
Chlorodibromomethane	124-48-1		U	5.00	1.25
Chloroethane	75-00-3		U	5.00	2.50
2-Chloroethyl vinyl ether	110-75-8		U	50.0	10.0
Chloroform	67-66-3		U	5.00	0.625
Chloromethane	74-87-3		U	5.00	2.50
2-Chlorotoluene	95-49-8		U	5.00	0.625
4-Chlorotoluene	106-43-4		U	5.00	1.25
1,2-Dibromo-3-chloropropane	96-12-8		U	25.0	5.00
1,2-Dibromoethane	106-93-4		U	5.00	1.25
Dibromomethane	74-95-3		U	5.00	1.25
1,2-Dichlorobenzene	95-50-1		U	5.00	0.625
1,3-Dichlorobenzene	541-73-1		U	5.00	1.25
1,4-Dichlorobenzene	106-46-7		U	5.00	0.625
Dichlorodifluoromethane	75-71-8		U	5.00	1.25
1,1-Dichloroethane	75-34-3	0.687	J	5.00	0.625
1,2-Dichloroethane	107-06-2		U	5.00	1.25
1,1-Dichloroethene	75-35-4		U	5.00	2.50
cis-1,2-Dichloroethene	156-59-2	121		5.00	1.25
trans-1,2-Dichloroethene	156-60-5		U	5.00	1.25
1,2-Dichloropropane	78-87-5		U	5.00	1.00
1,3-Dichloropropane	142-28-9		U	5.00	1.00
2,2-Dichloropropane	594-20-7		U	5.00	1.25
cis-1,3-Dichloropropene	10061-01-5		U	5.00	1.25
trans-1,3-Dichloropropene	10061-02-6		U	5.00	2.50
1,1-Dichloropropene	563-58-6		U	5.00	1.25
Ethylbenzene	100-41-4		U	5.00	1.25
2-Hexanone	591-78-6		U	50.0	12.5
Hexachlorobutadiene	87-68-3		U	5.00	1.25
Isopropylbenzene	98-82-8		U	5.00	1.25
p-Isopropyltoluene	99-87-6		U	5.00	1.25
4-Methyl-2-pentanone	108-10-1		U	50.0	12.5
Methylene chloride	75-09-2	1.60	J	25.0	1.25
Naphthalene	91-20-3		U	5.00	1.00
n-Propylbenzene	103-65-1		U	5.00	0.625
Styrene	100-42-5		U	5.00	0.625
1,1,1,2-Tetrachloroethane	630-20-6		U	5.00	1.25
1,1,2,2-Tetrachloroethane	79-34-5		U	5.00	1.00
Tetrachloroethene	127-18-4		U	5.00	1.25
Toluene	108-88-3		U	5.00	1.25
1,2,3-Trichlorobenzene	87-61-6		U	5.00	0.750
1,2,4-Trichlorobenzene	120-82-1		U	5.00	1.00
1,1,1-Trichloroethane	71-55-6		U	5.00	1.25
1,1,2-Trichloroethane	79-00-5		U	5.00	1.25
Trichloroethene	79-01-6	351		5.00	1.25
Trichlorofluoromethane	75-69-4		U	5.00	1.25

Microbac

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-05
Client ID: 47WW14-100804-FD
Matrix: Water
Workgroup Number: WG339465
Collect Date: 08/04/2010 15:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 5
Units: ug/L

Instrument: HPMS10
Prep Date: 08/11/2010 14:26
Cal Date: 08/09/2010 20:24
Run Date: 08/11/2010 14:26
File ID: 10M81214

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	5.00	2.50
1,2,4-Trimethylbenzene	95-63-6		U	5.00	1.25
1,3,5-Trimethylbenzene	108-67-8		U	5.00	1.25
Vinyl acetate	108-05-4		U	50.0	12.5
Vinyl chloride	75-01-4	11.9		5.00	1.25
o-Xylene	95-47-6		U	5.00	1.25
m-,p-Xylene	179601-23-1		U	5.00	2.50

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	108	86	118	
1,2-Dichloroethane-d4	107	80	120	
Toluene-d8	105	88	110	
4-Bromofluorobenzene	103	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

090410

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080104
Blank File ID: 10M81175
Prep Date: 08/10/10 11:35
Analyzed Date: 08/10/10 11:35
Analyst: TMB

Work Group: WG339340
Blank Sample ID: WG339340-01
Instrument ID: HPMS10
Method: 8260B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG339340-02	10M81176	08/10/10 12:07	01
LCS2	WG339340-03	10M81177	08/10/10 12:38	01
47WW14-100804-FD	L10080104-05	10M81192	08/10/10 20:33	01

Report Name: BLANK_SUMMARY
PDF File ID: 1751707
Report generated 08/13/2010 07:33

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080104
Blank File ID: 10M81207
Prep Date: 08/11/10 10:44
Analyzed Date: 08/11/10 10:44
Analyst: TMB

Work Group: WG339465
Blank Sample ID: WG339465-01
Instrument ID: HPMS10
Method: 8260B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG339465-02	10M81208	08/11/10 11:16	01
LCS2	WG339465-03	10M81209	08/11/10 11:47	01
47WW14-100804-FD	L10080104-05	10M81214	08/11/10 14:26	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 1751707
Report generated 08/13/2010 07:33

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080104
Work Group: WG339250
Blank File ID: 6M92940
Blank Sample ID: WG339250-01
Prep Date: 08/09/10 10:44
Instrument ID: HPMS6
Analyzed Date: 08/09/10 10:44
Method: 8260B
Analyst: MES

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG339250-02	6M92941	08/09/10 11:16	01
EQUIPMENT RINSE-100804	L10080104-03	6M92956	08/09/10 19:24	01
47WW14-100804	L10080104-04	6M92957	08/09/10 19:56	01
47WW30-100804	L10080104-01	6M92958	08/09/10 20:29	DL01
47WW13-100804	L10080104-02	6M92959	08/09/10 21:02	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 1751707
Report generated 08/13/2010 07:33

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METHOD BLANK SUMMARY

Login Number: L10080104
Blank File ID: 8M363179
Prep Date: 08/10/10 09:39
Analyzed Date: 08/10/10 09:39
Analyst: MES

Work Group: WG339327
Blank Sample ID: WG339327-01
Instrument ID: HPMS8
Method: 8260B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG339327-02	8M363180	08/10/10 10:11	01
LCS2	WG339327-03	8M363181	08/10/10 10:44	01
47WW13-100804	L10080104-02	8M363182	08/10/10 11:16	DL02
47WW14-100804	L10080104-04	8M363195	08/10/10 18:18	DL01
DUP	WG339327-05	8M363198	08/10/10 19:55	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 1751707
Report generated 08/13/2010 07:33

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/10/10 11:35 Sample ID:WG339340-01
Instrument ID:HPMS10 Run Date:08/10/10 11:35 Prep Method:5030B/5030C/503
File ID:10M81175 Analyst:TMB Method:8260B
Workgroup (AAB#):WG339340 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID:HPMS10-09-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.500	1.00	0.500	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name:BLANK
PDF ID: 1751708
13-AUG-2010 07:33

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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/10/10 11:35 Sample ID:WG339340-01
Instrument ID:HPMS10 Run Date:08/10/10 11:35 Prep Method:5030B/5030C/503
File ID:10M81175 Analyst:TMB Method:8260B
Workgroup (AAB#):WG339340 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID:HPMS10-09-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.200	1.00	0.200	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
Dibromofluoromethane	104	86	-	118	PASS
1,2-Dichloroethane-d4	97.4	80	-	120	PASS
Toluene-d8	105	88	-	110	PASS
4-Bromofluorobenzene	103	86	-	115	PASS

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1751708
13-AUG-2010 07:33

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METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/11/10 10:44 Sample ID:WG339465-01
Instrument ID:HPMS10 Run Date:08/11/10 10:44 Prep Method:5030B/5030C/503
File ID:10M81207 Analyst:TMB Method:8260B
Workgroup (AAB#):WG339465 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID:HPMS10-09-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.500	1.00	0.500	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name:BLANK
PDF ID: 1751708
13-AUG-2010 07:33

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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/11/10 10:44 Sample ID:WG339465-01
Instrument ID:HPMS10 Run Date:08/11/10 10:44 Prep Method:5030B/5030C/503
File ID:10M81207 Analyst:TMB Method:8260B
Workgroup (AAB#):WG339465 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID:HPMS10-09-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.200	1.00	0.200	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
Dibromofluoromethane	105	86	-	118	PASS
1,2-Dichloroethane-d4	103	80	-	120	PASS
Toluene-d8	106	88	-	110	PASS
4-Bromofluorobenzene	105	86	-	115	PASS

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1751708
13-AUG-2010 07:33

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/09/10 10:44 Sample ID:WG339250-01
Instrument ID:HPMS6 Run Date:08/09/10 10:44 Prep Method:5030B/5030C/503
File ID:6M92940 Analyst:MES Method:8260B
Workgroup (AAB#):WG339250 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: HPMS6-03-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.500	1.00	0.500	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name:BLANK
PDF ID: 1751708
13-AUG-2010 07:33

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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/09/10 10:44 Sample ID:WG339250-01
Instrument ID:HPMS6 Run Date:08/09/10 10:44 Prep Method:5030B/5030C/503
File ID:6M92940 Analyst:MES Method:8260B
Workgroup (AAB#):WG339250 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: HPMS6-03-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.200	1.00	0.200	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
Dibromofluoromethane	93.6	86	-	118	PASS
1,2-Dichloroethane-d4	93.1	80	-	120	PASS
Toluene-d8	93.9	88	-	110	PASS
4-Bromofluorobenzene	102	86	-	115	PASS

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1751708
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/10/10 09:39 Sample ID:WG339327-01
Instrument ID:HPMS8 Run Date:08/10/10 09:39 Prep Method:5030B/5030C/503
File ID:8M363179 Analyst:MES Method:8260B
Workgroup (AAB#):WG339327 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: HPMS8-05-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.500	1.00	0.500	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name:BLANK
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/10/10 09:39 Sample ID:WG339327-01
Instrument ID:HPMS8 Run Date:08/10/10 09:39 Prep Method:5030B/5030C/503
File ID:8M363179 Analyst:MES Method:8260B
Workgroup (AAB#):WG339327 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: HPMS8-05-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.350	1	J
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.200	1.00	0.200	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	100	86 - 118	PASS
1,2-Dichloroethane-d4	97.8	80 - 120	PASS
Toluene-d8	95.6	88 - 110	PASS
4-Bromofluorobenzene	96.2	86 - 115	PASS

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

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Report Name:BLANK
PDF ID: 1751708
13-AUG-2010 07:33

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080104 Run Date: 08/09/2010 Sample ID: WG339250-02
Instrument ID: HPMS6 Run Time: 11:16 Prep Method: 5030B/5030C/503
File ID: 6M92941 Analyst: MES Method: 8260B
Workgroup (AAB#): WG339250 Matrix: Water Units: ug/L
QC Key: STD Lot#: STD40337 Cal ID: HPMS6-03-AUG-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acetone	20.0	21.9	110	40 - 180	
Benzene	20.0	20.6	103	80 - 121	
Bromobenzene	20.0	21.3	107	80 - 120	
Bromochloromethane	20.0	20.8	104	65 - 130	
Bromodichloromethane	20.0	22.0	110	80 - 131	
Bromoform	20.0	21.3	107	70 - 130	
Bromomethane	20.0	17.3	86.6	30 - 145	
2-Butanone	20.0	21.6	108	10 - 170	
n-Butylbenzene	20.0	21.7	109	80 - 131	
sec-Butylbenzene	20.0	22.0	110	80 - 127	
tert-Butylbenzene	20.0	20.8	104	80 - 126	
Carbon disulfide	20.0	28.7	143	58 - 128	*
Carbon tetrachloride	20.0	21.9	110	65 - 140	
Chlorobenzene	20.0	20.7	103	80 - 120	
Chlorodibromomethane	20.0	22.2	111	60 - 135	
Chloroethane	20.0	21.0	105	60 - 135	
2-Chloroethyl vinyl ether	20.0	20.1	101	45 - 160	
Chloroform	20.0	20.5	102	80 - 125	
Chloromethane	20.0	18.0	90.1	40 - 125	
2-Chlorotoluene	20.0	21.4	107	80 - 127	
4-Chlorotoluene	20.0	20.3	102	80 - 126	
1,2-Dibromo-3-chloropropane	20.0	18.5	92.6	50 - 130	
1,2-Dibromoethane	20.0	20.9	104	80 - 129	
Dibromomethane	20.0	21.0	105	75 - 125	
1,2-Dichlorobenzene	20.0	20.7	104	80 - 125	
1,3-Dichlorobenzene	20.0	21.1	105	80 - 120	
1,4-Dichlorobenzene	20.0	20.3	102	80 - 120	
Dichlorodifluoromethane	20.0	15.4	77.0	40 - 160	
1,1-Dichloroethane	20.0	20.6	103	80 - 125	
1,2-Dichloroethane	20.0	21.0	105	80 - 129	
1,1-Dichloroethene	20.0	20.2	101	80 - 132	
cis-1,2-Dichloroethene	20.0	20.4	102	70 - 125	
trans-1,2-Dichloroethene	20.0	20.5	102	80 - 127	
1,2-Dichloropropane	20.0	21.4	107	80 - 120	
1,3-Dichloropropane	20.0	20.9	105	80 - 120	
2,2-Dichloropropane	20.0	21.4	107	80 - 133	
cis-1,3-Dichloropropene	20.0	21.7	108	70 - 130	
trans-1,3-Dichloropropene	20.0	20.1	101	80 - 130	
1,1-Dichloropropene	20.0	20.9	105	75 - 130	
Ethylbenzene	20.0	18.6	93.1	80 - 122	
2-Hexanone	20.0	21.1	106	55 - 130	

OK
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ND

LCS - Modified 03/06/2008
PDF File ID: 1752222
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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080104 Run Date:08/09/2010 Sample ID:WG339250-02
Instrument ID:HPMS6 Run Time:11:16 Prep Method:5030B/5030C/503
File ID:6M92941 Analyst:MES Method:8260B
Workgroup (AAB#):WG339250 Matrix:Water Units:ug/L
QC Key:STD Lot#:STD40337 Cal ID: HPMS6-03-AUG-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Hexachlorobutadiene	20.0	18.0	89.8	72 - 132	
Isopropylbenzene	20.0	17.5	87.4	80 - 122	
p-Isopropyltoluene	20.0	20.5	102	80 - 122	
4-Methyl-2-pentanone	20.0	21.3	106	64 - 140	
Methylene chloride	20.0	19.7	98.6	80 - 123	
Naphthalene	20.0	19.4	96.8	59 - 149	
n-Propylbenzene	20.0	21.8	109	80 - 129	
Styrene	20.0	19.2	96.2	80 - 123	
1,1,1,2-Tetrachloroethane	20.0	20.9	104	80 - 130	
1,1,2,2-Tetrachloroethane	20.0	21.3	106	79 - 125	
Tetrachloroethene	20.0	20.3	102	80 - 124	
Toluene	20.0	21.0	105	80 - 124	
1,2,3-Trichlorobenzene	20.0	19.7	98.6	55 - 140	
1,2,4-Trichlorobenzene	20.0	19.2	95.8	65 - 135	
1,1,1-Trichloroethane	20.0	21.3	106	80 - 134	
1,1,2-Trichloroethane	20.0	21.6	108	80 - 125	
Trichloroethene	20.0	19.6	97.9	80 - 122	
Trichlorofluoromethane	20.0	19.8	99.2	62 - 151	
1,2,3-Trichloropropane	20.0	21.7	109	75 - 125	
1,2,4-Trimethylbenzene	20.0	21.9	110	80 - 125	
1,3,5-Trimethylbenzene	20.0	21.7	109	80 - 127	
Vinyl acetate	20.0	29.0	145	10 - 190	
Vinyl chloride	20.0	21.3	106	50 - 170	
o-Xylene	20.0	19.2	96.1	80 - 122	
m-,p-Xylene	40.0	42.4	106	80 - 122	

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	92.3	86 - 118	PASS
1,2-Dichloroethane-d4	94.4	80 - 120	PASS
Toluene-d8	95.2	88 - 110	PASS
4-Bromofluorobenzene	99.0	86 - 115	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1752222
Report generated: 08/13/2010 10:31

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080104 Analyst:MES Prep Method:5030B/5030C/503
Instrument ID:HPMS8 Matrix:Water Method:8260B
Workgroup (AAB#):WG339327 Units:ug/L
QC Key:STD Lot #:STD40337

Sample ID:WG339327-02 LCS File ID:8M363180 Run Date:08/10/2010 10:11
Sample ID:WG339327-03 LCS2 File ID:8M363181 Run Date:08/10/2010 10:44

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	19.0	94.8	20.0	18.4	91.8	3.23	40 - 180	20	
Benzene	20.0	20.6	103	20.0	19.9	99.5	3.37	80 - 121	20	
Bromobenzene	20.0	20.8	104	20.0	20.7	103	0.573	80 - 120	20	
Bromochloromethane	20.0	21.8	109	20.0	21.1	106	3.14	65 - 130	20	
Bromodichloromethane	20.0	22.3	112	20.0	21.7	108	3.00	80 - 131	20	
Bromoform	20.0	21.0	105	20.0	20.8	104	1.23	70 - 130	20	
Bromomethane	20.0	21.0	105	20.0	19.9	99.5	5.25	30 - 145	20	
2-Butanone	20.0	19.5	97.6	20.0	18.8	93.9	3.90	10 - 170	20	
n-Butylbenzene	20.0	21.4	107	20.0	20.4	102	4.59	80 - 131	20	
sec-Butylbenzene	20.0	21.0	105	20.0	20.5	103	2.27	80 - 127	20	
tert-Butylbenzene	20.0	21.0	105	20.0	20.8	104	0.843	80 - 126	20	
Carbon disulfide	20.0	18.0	90.1	20.0	17.4	87.0	3.50	58 - 128	20	
Carbon tetrachloride	20.0	22.2	111	20.0	21.3	106	4.28	65 - 140	20	
Chlorobenzene	20.0	20.6	103	20.0	20.0	99.8	3.15	80 - 120	20	
Chlorodibromomethane	20.0	21.3	106	20.0	20.7	104	2.47	60 - 135	20	
Chloroethane	20.0	21.5	107	20.0	20.7	104	3.54	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	20.5	103	20.0	20.0	100	2.49	45 - 160	20	
Chloroform	20.0	20.5	103	20.0	19.9	99.5	3.04	80 - 125	20	
Chloromethane	20.0	19.5	97.3	20.0	18.4	92.2	5.36	40 - 125	20	
2-Chlorotoluene	20.0	20.3	102	20.0	19.9	99.5	2.22	80 - 127	20	
4-Chlorotoluene	20.0	20.4	102	20.0	20.2	101	0.656	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	19.2	96.2	20.0	18.6	92.8	3.65	50 - 130	20	
1,2-Dibromoethane	20.0	21.6	108	20.0	20.7	104	4.46	80 - 129	20	
Dibromomethane	20.0	21.9	110	20.0	21.2	106	3.55	75 - 125	20	
1,2-Dichlorobenzene	20.0	20.5	103	20.0	20.1	100	2.21	80 - 125	20	
1,3-Dichlorobenzene	20.0	20.4	102	20.0	20.1	101	1.19	80 - 120	20	
1,4-Dichlorobenzene	20.0	20.3	102	20.0	19.9	99.7	1.81	80 - 120	20	
Dichlorodifluoromethane	20.0	14.9	74.6	20.0	14.1	70.6	5.46	40 - 160	20	
1,1-Dichloroethane	20.0	21.4	107	20.0	20.7	103	3.40	80 - 125	20	
1,2-Dichloroethane	20.0	21.3	106	20.0	20.5	102	3.82	80 - 129	20	
1,1-Dichloroethene	20.0	20.9	104	20.0	19.9	99.4	5.02	80 - 132	20	
cis-1,2-Dichloroethene	20.0	21.3	106	20.0	20.7	103	3.07	70 - 125	20	
trans-1,2-Dichloroethene	20.0	21.7	109	20.0	20.6	103	5.37	80 - 127	20	
1,2-Dichloropropane	20.0	21.5	108	20.0	20.6	103	4.39	80 - 120	20	
1,3-Dichloropropane	20.0	21.5	107	20.0	20.8	104	3.06	80 - 120	20	
2,2-Dichloropropane	20.0	21.7	108	20.0	19.8	99.0	8.99	80 - 133	20	
cis-1,3-Dichloropropene	20.0	21.1	106	20.0	20.3	102	3.84	70 - 130	20	
trans-1,3-Dichloropropene	20.0	19.2	95.8	20.0	18.7	93.3	2.65	80 - 130	20	
1,1-Dichloropropene	20.0	21.2	106	20.0	20.5	102	3.29	75 - 130	20	
Ethylbenzene	20.0	21.2	106	20.0	20.7	103	2.41	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID:1749200
Report generated: 08/13/2010 07:33

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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080104 Analyst:MES Prep Method:5030B/5030C/503
Instrument ID:HPMS8 Matrix:Water Method:8260B
Workgroup (AAB#):WG339327 Units:ug/L
QC Key:STD Lot #:STD40337

Sample ID:WG339327-02 LCS File ID:8M363180 Run Date:08/10/2010 10:11
Sample ID:WG339327-03 LCS2 File ID:8M363181 Run Date:08/10/2010 10:44

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	20.2	101	20.0	18.5	92.4	8.92	55 - 130	20	
Hexachlorobutadiene	20.0	21.0	105	20.0	19.8	99.1	5.59	72 - 132	20	
Isopropylbenzene	20.0	18.6	93.0	20.0	17.9	89.3	4.03	80 - 122	20	
p-Isopropyltoluene	20.0	20.6	103	20.0	20.0	99.9	3.22	80 - 122	20	
4-Methyl-2-pentanone	20.0	19.6	98.0	20.0	19.3	96.6	1.50	64 - 140	20	
Methylene chloride	20.0	19.1	95.4	20.0	19.0	95.0	0.391	80 - 123	20	
Naphthalene	20.0	19.5	97.5	20.0	18.7	93.4	4.23	59 - 149	20	
n-Propylbenzene	20.0	20.7	104	20.0	20.1	100	2.99	80 - 129	20	
Styrene	20.0	20.3	101	20.0	19.7	98.4	3.00	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	21.9	109	20.0	21.3	106	2.81	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	21.4	107	20.0	21.2	106	1.08	79 - 125	20	
Tetrachloroethene	20.0	22.4	112	20.0	21.5	107	4.10	80 - 124	20	
Toluene	20.0	20.7	104	20.0	20.1	100	3.35	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	18.8	94.1	20.0	18.2	91.0	3.33	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	19.9	99.5	20.0	19.3	96.6	3.04	65 - 135	20	
1,1,1-Trichloroethane	20.0	21.9	110	20.0	21.0	105	4.24	80 - 134	20	
1,1,2-Trichloroethane	20.0	21.4	107	20.0	21.0	105	1.96	80 - 125	20	
Trichloroethene	20.0	21.5	107	20.0	21.2	106	1.13	80 - 122	20	
Trichlorofluoromethane	20.0	20.5	103	20.0	19.2	96.0	6.62	62 - 151	20	
1,2,3-Trichloropropane	20.0	20.6	103	20.0	20.4	102	1.23	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	21.5	108	20.0	21.0	105	2.38	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	20.7	104	20.0	20.4	102	1.54	80 - 127	20	
Vinyl acetate	20.0	15.7	78.4	20.0	14.9	74.5	5.14	10 - 190	20	
Vinyl chloride	20.0	21.3	106	20.0	20.1	100	5.91	50 - 170	20	
o-Xylene	20.0	20.5	102	20.0	19.8	98.9	3.43	80 - 122	20	
m-,p-Xylene	40.0	41.9	105	40.0	40.2	101	4.04	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	99.1	95.7	80 - 120	PASS
Dibromofluoromethane	100	99.9	86 - 118	PASS
4-Bromofluorobenzene	95.7	97.3	86 - 115	PASS
Toluene-d8	98.7	98.1	88 - 110	PASS

* EXCEEDS %REC LIMIT

\# EXCEEDS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID:1749200
Report generated: 08/13/2010 07:33

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080104 Analyst:TMB Prep Method:5030B/5030C/503
Instrument ID:HPMS10 Matrix:Water Method:8260B
Workgroup (AAB#):WG339340 Units:ug/L
QC Key:STD Lot #:STD40337

Sample ID:WG339340-02 LCS File ID:10M81176 Run Date:08/10/2010 12:07
Sample ID:WG339340-03 LCS2 File ID:10M81177 Run Date:08/10/2010 12:38

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	20.2	101	20.0	20.5	102	1.39	40 - 180	20	
Benzene	20.0	19.8	98.9	20.0	19.1	95.4	3.57	80 - 121	20	
Bromobenzene	20.0	20.8	104	20.0	19.9	99.6	4.50	80 - 120	20	
Bromochloromethane	20.0	21.1	105	20.0	20.9	104	0.865	65 - 130	20	
Bromodichloromethane	20.0	22.5	112	20.0	21.8	109	3.22	80 - 131	20	
Bromoform	20.0	21.5	108	20.0	21.4	107	0.445	70 - 130	20	
Bromomethane	20.0	18.5	92.6	20.0	17.6	88.0	5.05	30 - 145	20	
2-Butanone	20.0	19.8	99.2	20.0	19.6	98.1	1.13	10 - 170	20	
n-Butylbenzene	20.0	21.2	106	20.0	19.7	98.6	7.35	80 - 131	20	
sec-Butylbenzene	20.0	20.9	105	20.0	19.5	97.3	7.28	80 - 127	20	
tert-Butylbenzene	20.0	21.4	107	20.0	20.0	100	6.82	80 - 126	20	
Carbon disulfide	20.0	17.7	88.7	20.0	16.6	83.1	6.51	58 - 128	20	
Carbon tetrachloride	20.0	22.9	115	20.0	21.0	105	8.67	65 - 140	20	
Chlorobenzene	20.0	20.4	102	20.0	19.6	98.2	3.92	80 - 120	20	
Chlorodibromomethane	20.0	21.8	109	20.0	21.7	109	0.610	60 - 135	20	
Chloroethane	20.0	20.3	102	20.0	19.1	95.7	6.02	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	19.3	96.3	20.0	19.6	97.9	1.63	45 - 160	20	
Chloroform	20.0	20.6	103	20.0	20.1	100	2.50	80 - 125	20	
Chloromethane	20.0	17.2	86.2	20.0	16.1	80.7	6.61	40 - 125	20	
2-Chlorotoluene	20.0	21.3	107	20.0	19.8	98.8	7.61	80 - 127	20	
4-Chlorotoluene	20.0	20.3	101	20.0	19.9	99.5	1.95	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	18.8	94.1	20.0	19.3	96.4	2.36	50 - 130	20	
1,2-Dibromoethane	20.0	20.5	102	20.0	20.6	103	0.929	80 - 129	20	
Dibromomethane	20.0	20.8	104	20.0	20.5	102	1.46	75 - 125	20	
1,2-Dichlorobenzene	20.0	20.6	103	20.0	19.9	99.3	3.88	80 - 125	20	
1,3-Dichlorobenzene	20.0	20.9	104	20.0	19.8	99.1	5.22	80 - 120	20	
1,4-Dichlorobenzene	20.0	19.8	98.9	20.0	19.1	95.7	3.30	80 - 120	20	
Dichlorodifluoromethane	20.0	14.2	70.9	20.0	12.8	64.1	10.1	40 - 160	20	
1,1-Dichloroethane	20.0	21.1	106	20.0	19.9	99.4	6.17	80 - 125	20	
1,2-Dichloroethane	20.0	21.2	106	20.0	20.9	104	1.79	80 - 129	20	
1,1-Dichloroethene	20.0	20.9	104	20.0	18.8	94.1	10.4	80 - 132	20	
cis-1,2-Dichloroethene	20.0	21.3	106	20.0	20.6	103	3.13	70 - 125	20	
trans-1,2-Dichloroethene	20.0	20.8	104	20.0	19.5	97.3	6.85	80 - 127	20	
1,2-Dichloropropane	20.0	20.5	102	20.0	19.6	98.2	4.09	80 - 120	20	
1,3-Dichloropropane	20.0	20.5	102	20.0	20.1	101	1.64	80 - 120	20	
2,2-Dichloropropane	20.0	21.7	108	20.0	20.3	101	6.71	80 - 133	20	
cis-1,3-Dichloropropene	20.0	20.8	104	20.0	20.4	102	2.16	70 - 130	20	
trans-1,3-Dichloropropene	20.0	18.9	94.3	20.0	18.6	93.2	1.21	80 - 130	20	
1,1-Dichloropropene	20.0	20.5	103	20.0	19.0	95.0	7.68	75 - 130	20	
Ethylbenzene	20.0	20.4	102	20.0	19.3	96.4	5.82	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008
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Report generated: 08/13/2010 07:33

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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080104 Analyst:TMB Prep Method:5030B/5030C/503
Instrument ID:HPMS10 Matrix:Water Method:8260B
Workgroup (AAB#):WG339340 Units:ug/L
QC Key:STD Lot #:STD40337

Sample ID:WG339340-02 LCS File ID:10M81176 Run Date:08/10/2010 12:07
Sample ID:WG339340-03 LCS2 File ID:10M81177 Run Date:08/10/2010 12:38

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	18.9	94.5	20.0	18.7	93.3	1.30	55 - 130	20	
Hexachlorobutadiene	20.0	22.0	110	20.0	20.6	103	6.58	72 - 132	20	
Isopropylbenzene	20.0	18.9	94.7	20.0	17.8	89.1	6.11	80 - 122	20	
p-Isopropyltoluene	20.0	20.8	104	20.0	19.4	97.1	6.83	80 - 122	20	
4-Methyl-2-pentanone	20.0	19.4	97.1	20.0	20.0	100	2.93	64 - 140	20	
Methylene chloride	20.0	20.2	101	20.0	19.2	96.1	4.90	80 - 123	20	
Naphthalene	20.0	20.5	103	20.0	20.4	102	0.434	59 - 149	20	
n-Propylbenzene	20.0	21.2	106	20.0	19.8	98.8	6.81	80 - 129	20	
Styrene	20.0	21.3	106	20.0	20.4	102	4.08	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	20.7	103	20.0	20.3	102	1.63	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	20.5	102	20.0	20.8	104	1.56	79 - 125	20	
Tetrachloroethene	20.0	21.2	106	20.0	19.7	98.4	7.48	80 - 124	20	
Toluene	20.0	20.3	102	20.0	19.4	96.9	4.74	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	20.6	103	20.0	20.3	102	1.15	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	20.6	103	20.0	19.7	98.5	4.50	65 - 135	20	
1,1,1-Trichloroethane	20.0	22.1	110	20.0	20.9	105	5.30	80 - 134	20	
1,1,2-Trichloroethane	20.0	21.1	105	20.0	20.8	104	1.61	80 - 125	20	
Trichloroethene	20.0	20.8	104	20.0	19.4	96.9	7.07	80 - 122	20	
Trichlorofluoromethane	20.0	22.2	111	20.0	20.2	101	9.44	62 - 151	20	
1,2,3-Trichloropropane	20.0	21.4	107	20.0	20.1	101	6.14	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	21.5	108	20.0	20.5	103	4.70	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	21.3	106	20.0	20.3	101	4.80	80 - 127	20	
Vinyl acetate	20.0	17.4	87.1	20.0	17.7	88.3	1.31	10 - 190	20	
Vinyl chloride	20.0	19.1	95.3	20.0	17.9	89.6	6.16	50 - 170	20	
o-Xylene	20.0	20.6	103	20.0	19.5	97.5	5.43	80 - 122	20	
m-,p-Xylene	40.0	41.7	104	40.0	40.1	100	3.89	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	101	101	80 - 120	PASS
Dibromofluoromethane	107	106	86 - 118	PASS
4-Bromofluorobenzene	102	101	86 - 115	PASS
Toluene-d8	105	104	88 - 110	PASS

* EXCEEDS %REC LIMIT

\# EXCEEDS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID:1749200
Report generated: 08/13/2010 07:33

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080104 Analyst:TMB Prep Method:5030B/5030C/503
Instrument ID:HPMS10 Matrix:Water Method:8260B
Workgroup (AAB#):WG339465 Units:ug/L
QC Key:STD Lot #:STD40337

Sample ID:WG339465-02 LCS File ID:10M81208 Run Date:08/11/2010 11:16
Sample ID:WG339465-03 LCS2 File ID:10M81209 Run Date:08/11/2010 11:47

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	21.0	105	20.0	21.4	107	2.28	40 - 180	20	
Benzene	20.0	20.4	102	20.0	19.0	95.0	7.22	80 - 121	20	
Bromobenzene	20.0	20.3	101	20.0	19.9	99.5	1.94	80 - 120	20	
Bromochloromethane	20.0	21.3	107	20.0	20.8	104	2.75	65 - 130	20	
Bromodichloromethane	20.0	23.9	119	20.0	23.0	115	3.67	80 - 131	20	
Bromoform	20.0	20.7	104	20.0	21.4	107	3.34	70 - 130	20	
Bromomethane	20.0	18.8	93.9	20.0	18.4	92.1	1.91	30 - 145	20	
2-Butanone	20.0	20.2	101	20.0	20.0	99.9	1.34	10 - 170	20	
n-Butylbenzene	20.0	21.2	106	20.0	20.0	99.8	5.97	80 - 131	20	
sec-Butylbenzene	20.0	20.7	104	20.0	19.5	97.5	6.03	80 - 127	20	
tert-Butylbenzene	20.0	20.8	104	20.0	19.7	98.6	5.34	80 - 126	20	
Carbon disulfide	20.0	17.6	87.8	20.0	15.9	79.6	9.79	58 - 128	20	
Carbon tetrachloride	20.0	25.2	126	20.0	22.7	113	10.6	65 - 140	20	
Chlorobenzene	20.0	20.1	101	20.0	19.4	96.9	3.78	80 - 120	20	
Chlorodibromomethane	20.0	22.5	112	20.0	22.2	111	1.28	60 - 135	20	
Chloroethane	20.0	22.8	114	20.0	20.3	101	11.6	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	19.3	96.3	20.0	19.0	94.8	1.56	45 - 160	20	
Chloroform	20.0	22.0	110	20.0	21.0	105	4.39	80 - 125	20	
Chloromethane	20.0	24.5	123	20.0	22.6	113	8.32	40 - 125	20	
2-Chlorotoluene	20.0	20.6	103	20.0	20.4	102	0.983	80 - 127	20	
4-Chlorotoluene	20.0	21.1	106	20.0	20.0	100	5.33	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	18.5	92.4	20.0	18.3	91.5	0.972	50 - 130	20	
1,2-Dibromoethane	20.0	20.1	101	20.0	20.4	102	1.67	80 - 129	20	
Dibromomethane	20.0	21.4	107	20.0	21.1	105	1.54	75 - 125	20	
1,2-Dichlorobenzene	20.0	20.2	101	20.0	19.6	98.2	2.87	80 - 125	20	
1,3-Dichlorobenzene	20.0	20.5	102	20.0	19.6	98.2	4.26	80 - 120	20	
1,4-Dichlorobenzene	20.0	19.5	97.6	20.0	18.9	94.7	3.04	80 - 120	20	
Dichlorodifluoromethane	20.0	28.0	140	20.0	23.1	115	19.5	40 - 160	20	
1,1-Dichloroethane	20.0	22.1	110	20.0	20.9	105	5.31	80 - 125	20	
1,2-Dichloroethane	20.0	23.1	115	20.0	22.7	113	1.55	80 - 129	20	
1,1-Dichloroethene	20.0	20.9	104	20.0	19.6	98.2	6.09	80 - 132	20	
cis-1,2-Dichloroethene	20.0	21.4	107	20.0	20.3	102	5.29	70 - 125	20	
trans-1,2-Dichloroethene	20.0	21.5	107	20.0	19.5	97.7	9.47	80 - 127	20	
1,2-Dichloropropane	20.0	20.6	103	20.0	19.7	98.4	4.67	80 - 120	20	
1,3-Dichloropropane	20.0	20.1	100	20.0	19.9	99.5	0.847	80 - 120	20	
2,2-Dichloropropane	20.0	22.7	114	20.0	21.3	107	6.44	80 - 133	20	
cis-1,3-Dichloropropene	20.0	21.3	106	20.0	20.6	103	3.39	70 - 130	20	
trans-1,3-Dichloropropene	20.0	19.1	95.6	20.0	18.8	94.1	1.57	80 - 130	20	
1,1-Dichloropropene	20.0	21.5	107	20.0	19.3	96.3	10.8	75 - 130	20	
Ethylbenzene	20.0	20.5	103	20.0	19.5	97.6	4.91	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID:1749200
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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080104 Analyst:TMB Prep Method:5030B/5030C/503
Instrument ID:HPMS10 Matrix:Water Method:8260B
Workgroup (AAB#):WG339465 Units:ug/L
QC Key:STD Lot #:STD40337

Sample ID:WG339465-02 LCS File ID:10M81208 Run Date:08/11/2010 11:16
Sample ID:WG339465-03 LCS2 File ID:10M81209 Run Date:08/11/2010 11:47

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	19.3	96.5	20.0	19.4	97.0	0.562	55 - 130	20	
Hexachlorobutadiene	20.0	20.7	104	20.0	19.6	98.0	5.59	72 - 132	20	
Isopropylbenzene	20.0	18.9	94.3	20.0	18.1	90.4	4.21	80 - 122	20	
p-Isopropyltoluene	20.0	20.5	103	20.0	19.5	97.6	4.97	80 - 122	20	
4-Methyl-2-pentanone	20.0	19.2	95.9	20.0	19.3	96.6	0.819	64 - 140	20	
Methylene chloride	20.0	20.2	101	20.0	19.3	96.5	4.82	80 - 123	20	
Naphthalene	20.0	18.4	92.1	20.0	18.8	94.1	2.15	59 - 149	20	
n-Propylbenzene	20.0	21.0	105	20.0	19.9	99.3	5.59	80 - 129	20	
Styrene	20.0	20.8	104	20.0	20.6	103	1.01	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	21.2	106	20.0	20.5	103	3.44	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	19.4	97.2	20.0	19.5	97.3	0.0539	79 - 125	20	
Tetrachloroethene	20.0	20.6	103	20.0	19.3	96.7	6.33	80 - 124	20	
Toluene	20.0	20.6	103	20.0	19.5	97.3	5.64	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	18.5	92.5	20.0	18.6	93.0	0.534	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	19.4	97.1	20.0	19.2	96.2	0.996	65 - 135	20	
1,1,1-Trichloroethane	20.0	24.3	121	20.0	22.3	112	8.42	80 - 134	20	
1,1,2-Trichloroethane	20.0	20.6	103	20.0	20.4	102	1.04	80 - 125	20	
Trichloroethene	20.0	21.0	105	20.0	19.8	98.9	5.98	80 - 122	20	
Trichlorofluoromethane	20.0	26.1	130	20.0	22.7	114	13.6	62 - 151	20	
1,2,3-Trichloropropane	20.0	20.7	103	20.0	21.2	106	2.38	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	21.5	108	20.0	21.0	105	2.52	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	21.5	108	20.0	20.7	104	3.86	80 - 127	20	
Vinyl acetate	20.0	18.4	91.8	20.0	17.7	88.5	3.68	10 - 190	20	
Vinyl chloride	20.0	25.4	127	20.0	23.2	116	8.97	50 - 170	20	
o-Xylene	20.0	20.6	103	20.0	19.9	99.5	3.68	80 - 122	20	
m-,p-Xylene	40.0	41.8	105	40.0	39.8	99.5	5.03	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	108	106	80 - 120	PASS
Dibromofluoromethane	110	111	86 - 118	PASS
4-Bromofluorobenzene	102	103	86 - 115	PASS
Toluene-d8	102	103	88 - 110	PASS

* EXCEEDS %REC LIMIT

\# EXCEEDS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1749200
Report generated: 08/13/2010 07:33

2.1.2 RSK 175

2.1.2.1 Summary Data

LABORATORY REPORT

L10080104

08/19/10 15:49

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47WW30-100804	L10080104-01	RSK175	1	05-AUG-10
47WW13-100804	L10080104-02	RSK175	1	05-AUG-10
EQUIPMENT RINSE-100804	L10080104-03	RSK175	1	05-AUG-10
47WW14-100804	L10080104-04	RSK175	1	05-AUG-10
47WW14-100804-FD	L10080104-05	RSK175	1	05-AUG-10

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-01
Client ID: 47WW30-100804
Matrix: Water
Workgroup Number: WG339163
Collect Date: 08/04/2010 12:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5021
Analytical Method: RSK175
Analyst: FJB
Dilution: 1
Units: ug/L

Instrument: HP16
Prep Date: 08/06/2010 19:11
Cal Date: 05/25/2010 12:59
Run Date: 08/06/2010 19:11
File ID: 16G22723

Analyte	CAS. Number	Result	Qual	PQL	SDL
methane	74-82-8	30.1		5.00	1.00
ethene	74-85-1		U	5.00	1.00
ethane	74-84-0		U	5.00	1.00

U Not detected at or above adjusted sample detection limit

8/19/2010

Microbac

Report Number: L10080104
Report Date : August 19, 2010

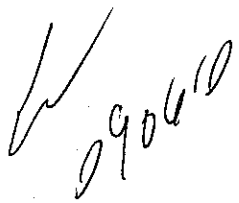
Sample Number: L10080104-02
Client ID: 47WW13-100804
Matrix: Water
Workgroup Number: WG339163
Collect Date: 08/04/2010 14:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5021
Analytical Method: RSK175
Analyst: FJB
Dilution: 1
Units: ug/L

Instrument: HP16
Prep Date: 08/06/2010 19:23
Cal Date: 05/25/2010 12:59
Run Date: 08/06/2010 19:23
File ID: 16G22724

Analyte	CAS. Number	Result	Qual	PQL	SDL
methane	74-82-8	271		5.00	1.00
ethene	74-85-1	27.4		5.00	1.00
ethane	74-84-0		U	5.00	1.00

U Not detected at or above adjusted sample detection limit



Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-03
Client ID: EQUIPMENT RINSE-100804
Matrix: Water
Workgroup Number: WG339163
Collect Date: 08/04/2010 16:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5021
Analytical Method: RSK175
Analyst: PJB
Dilution: 1
Units: ug/L

Instrument: HP16
Prep Date: 08/06/2010 19:36
Cal Date: 05/25/2010 12:59
Run Date: 08/06/2010 19:36
File ID: 16G22725

Analyte	CAS. Number	Result	Qual	PQL	SDL
methane	74-82-8		U	5.00	1.00
ethene	74-85-1		U	5.00	1.00
ethane	74-84-0		U	5.00	1.00

U Not detected at or above adjusted sample detection limit

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-04
Client ID: 47WW14-100804
Matrix: Water
Workgroup Number: WG339163
Collect Date: 08/04/2010 15:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5021
Analytical Method: RSK175
Analyst: FJB
Dilution: 1
Units: ug/L

Instrument: HP16
Prep Date: 08/06/2010 19:48
Cal Date: 05/25/2010 12:59
Run Date: 08/06/2010 19:48
File ID: 16G22726

Analyte	CAS. Number	Result	Qual	PQL	SDL
methane	74-82-8	53.3		5.00	1.00
ethene	74-85-1		U	5.00	1.00
ethane	74-84-0		U	5.00	1.00

U Not detected at or above adjusted sample detection limit

00104388

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-05
Client ID: 47WW14-100804-FD
Matrix: Water
Workgroup Number: WG339163
Collect Date: 08/04/2010 15:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5021
Analytical Method: RSK175
Analyst: FJB
Dilution: 1
Units: ug/L

Instrument: HP16
Prep Date: 08/06/2010 20:00
Cal Date: 05/25/2010 12:59
Run Date: 08/06/2010 20:00
File ID: 16G22727

Analyte	CAS. Number	Result	Qual	PQL	SDL
methane	74-82-8	55.8		5.00	1.00
ethene	74-85-1		U	5.00	1.00
ethane	74-84-0		U	5.00	1.00

U Not detected at or above adjusted sample detection limit

2.1.2.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080104
Blank File ID: 16G22711
Prep Date: 08/06/10 16:13
Analyzed Date: 08/06/10 16:13
Analyst: FJB

Work Group: WG339163
Blank Sample ID: WG339163-01
Instrument ID: HP16
Method: RSK175

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG339163-02	16G22712	08/06/10 16:25	01
LCS2	WG339163-03	16G22713	08/06/10 16:38	01
47WW30-100804	L10080104-01	16G22723	08/06/10 19:11	01
47WW13-100804	L10080104-02	16G22724	08/06/10 19:23	01
EQUIPMENT RINSE-100804	L10080104-03	16G22725	08/06/10 19:36	01
47WW14-100804	L10080104-04	16G22726	08/06/10 19:48	01
47WW14-100804-FD	L10080104-05	16G22727	08/06/10 20:00	01

Report Name: BLANK_SUMMARY
PDF File ID: 1746751
Report generated 08/09/2010 13:38

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/06/10 16:13 Sample ID:WG339163-01
Instrument ID:HP16 Run Date:08/06/10 16:13 Prep Method:5021
File ID:16G22711 Analyst:FJB Method:RSK175
Workgroup (AAB#):WG339163 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: HP16-25-MAY-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
methane	1.00	5.00	1.00	1	U
ethene	1.00	5.00	1.00	1	U
ethane	1.00	5.00	1.00	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1746752
09-AUG-2010 13:38

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080104 Analyst:FJB Prep Method:5021
Instrument ID:HP16 Matrix:Water Method:RSK175
Workgroup (AAB#):WG339163 Units:ug/L
QC Key:STD Lot #:STD38726
Sample ID:WG339163-02 LCS File ID:16G22712 Run Date:08/06/2010 16:25
Sample ID:WG339163-03 LCS2 File ID:16G22713 Run Date:08/06/2010 16:38

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
methane	114	109	95.1	114	104	90.9	4.52	56 - 140	40	
ethene	200	209	105	200	199	99.8	4.81	56 - 140	40	
ethane	214	217	101	214	207	96.8	4.77	56 - 137	40	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1746753
Report generated: 08/09/2010 13:38

2.2.1 Semivolatiles GC/MS Data (8270)

2.2.1.1 Summary Data

LABORATORY REPORT

L10080104

08/19/10 15:49

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47WW30-100804	L10080104-01	8270C	1	05-AUG-10
47WW13-100804	L10080104-02	8270C	1	05-AUG-10
EQUIPMENT RINSE-100804	L10080104-03	8270C	1	05-AUG-10
47WW14-100804	L10080104-04	8270C	1	05-AUG-10

00104396

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-01
Client ID: 47WW30-100804
Matrix: Water
Workgroup Number: WG339173
Collect Date: 08/04/2010 12:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3510C
Analytical Method: 8270C
Analyst: CAA
Dilution: 1
Units: ug/L

Instrument: HPMS12
Prep Date: 08/06/2010 10:15
Cal Date: 08/09/2010 18:55
Run Date: 08/10/2010 00:18
File ID: 12M31136

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,4-Trichlorobenzene	120-82-1		U	5.00	2.50
1,2-Dichlorobenzene	95-50-1		U	5.00	2.50
1,3-Dichlorobenzene	541-73-1		U	5.00	2.50
1,4-Dichlorobenzene	106-46-7		U	5.00	2.50
2,4,5-Trichlorophenol	95-95-4		U	5.00	2.50
2,4,6-Trichlorophenol	88-06-2		U	5.00	2.50
2,4-Dichlorophenol	120-83-2		U	5.00	2.50
2,4-Dimethylphenol	105-67-9		U	5.00	2.50
2,4-Dinitrophenol	51-28-5		U	25.0	12.5
2,4-Dinitrotoluene	121-14-2		U	5.00	2.50
2,6-Dinitrotoluene	606-20-2		U	5.00	2.50
2-Chloronaphthalene	91-58-7		U	5.00	2.50
2-Chlorophenol	95-57-8		U	5.00	2.50
2-Methylnaphthalene	91-57-6		U	5.00	2.50
2-Methylphenol	95-48-7		U	5.00	2.50
2-Nitroaniline	88-74-4		U	25.0	12.5
2-Nitrophenol	88-75-5		U	5.00	2.50
3,3'-Dichlorobenzidine	91-94-1		U	10.0	2.50
3-,4-Methylphenol	106-44-5		U	5.00	2.50
3-Nitroaniline	99-09-2		U	25.0	12.5
4,6-Dinitro-2-methylphenol	534-52-1		U	25.0	12.5
4-Bromophenyl-phenylether	101-55-3		U	5.00	2.50
4-Chloro-3-methylphenol	59-50-7		U	5.00	2.50
4-Chloroaniline	106-47-8		U	5.00	2.50
4-Chlorophenyl-phenyl ether	7005-72-3		U	5.00	2.50
4-Nitroaniline	100-01-6		U	25.0	12.5
4-Nitrophenol	100-02-7		U	25.0	12.5
Acenaphthene	83-32-9		U	5.00	2.50
Acenaphthylene	208-96-8		U	5.00	2.50
Anthracene	120-12-7		U	5.00	2.50
Benzo(a)anthracene	56-55-3		U	5.00	2.50
Benzo(a)pyrene	50-32-8		U	5.00	2.50
Benzo(b)fluoranthene	205-99-2		U	5.00	2.50
Benzo(g,h,i)Perylene	191-24-2		U	5.00	2.50
Benzo(k)fluoranthene	207-08-9		U	5.00	2.50
Benzoic acid	65-85-0		U	25.0	12.5
Benzyl alcohol	100-51-6		U	5.00	2.50
Bis(2-Chloroethoxy)Methane	111-91-1		U	5.00	2.50
Bis(2-Chloroethyl)ether	111-44-4		U	5.00	2.50
bis(2-Chloroisopropyl)ether	108-60-1		U	5.00	2.50
bis(2-Ethylhexyl)phthalate	117-81-7	3.92	J	10.0	3.00
Butylbenzylphthalate	85-68-7		U	5.00	2.50
Chrysene	218-01-9		U	5.00	2.50
Di-N-Butylphthalate	84-74-2		U	5.00	2.50
Di-n-octylphthalate	117-84-0		U	5.00	2.50
Dibenzo(a,h)Anthracene	53-70-3		U	5.00	2.50
Dibenzofuran	132-64-9		U	5.00	2.50
Diethylphthalate	84-66-2		U	5.00	2.50
Dimethylphthalate	131-11-3		U	5.00	2.50
Fluoranthene	206-44-0		U	5.00	2.50
Fluorene	86-73-7		U	5.00	2.50
Hexachlorobenzene	118-74-1		U	5.00	2.50
Hexachlorobutadiene	87-68-3		U	5.00	2.50
Hexachlorocyclopentadiene	77-47-4		U	5.00	2.50
Hexachloroethane	67-72-1		U	5.00	2.50
Indeno(1,2,3-cd)pyrene	193-39-5		U	5.00	2.50
Isophorone	78-59-1		U	5.00	2.50
N-Nitrosodiphenylamine	86-30-6		U	5.00	2.50
N-Nitrosodipropylamine	621-64-7		U	5.00	2.50

4- EB

Microbac

00104397

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-01
Client ID: 47WW30-100804
Matrix: Water
Workgroup Number: WG339173
Collect Date: 08/04/2010 12:40
Sample Tag: 01

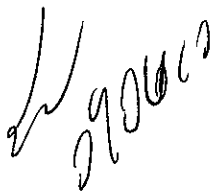
PrePrep Method: NONE
Prep Method: 3510C
Analytical Method: 8270C
Analyst: CAA
Dilution: 1
Units: ug/L

Instrument: HPMS12
Prep Date: 08/06/2010 10:15
Cal Date: 08/09/2010 18:55
Run Date: 08/10/2010 00:18
File ID: 12M31136

Analyte	CAS. Number	Result	Qual	PQL	SDL
Naphthalene	91-20-3		U	5.00	2.50
Nitrobenzene	98-95-3		U	5.00	2.50
Pentachlorophenol	87-86-5		U	25.0	12.5
Phenanthrene	85-01-8		U	5.00	2.50
Phenol	108-95-2		U	5.00	2.50
Pyrene	129-00-0		U	5.00	2.50

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	75.7	10	123	
2-Fluorobiphenyl	54.0	43	116	
2-Fluorophenol	31.2	21	100	
Nitrobenzene-d5	54.3	35	114	
p-Terphenyl-d14	70.5	33	141	
Phenol-d5	19.5	10	94	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL



Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-02
Client ID: 47WW13-100804
Matrix: Water
Workgroup Number: WG339173
Collect Date: 08/04/2010 14:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3510C
Analytical Method: 8270C
Analyst: CAA
Dilution: 1
Units: ug/L

Instrument: HPMS12
Prep Date: 08/06/2010 10:15
Cal Date: 08/09/2010 18:55
Run Date: 08/10/2010 00:50
File ID: 12M31137

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,4-Trichlorobenzene	120-82-1		U	5.00	2.50
1,2-Dichlorobenzene	95-50-1		U	5.00	2.50
1,3-Dichlorobenzene	541-73-1		U	5.00	2.50
1,4-Dichlorobenzene	106-46-7		U	5.00	2.50
2,4,5-Trichlorophenol	95-95-4		U	5.00	2.50
2,4,6-Trichlorophenol	88-06-2		U	5.00	2.50
2,4-Dichlorophenol	120-83-2		U	5.00	2.50
2,4-Dimethylphenol	105-67-9		U	5.00	2.50
2,4-Dinitrophenol	51-28-5		U	25.0	12.5
2,4-Dinitrotoluene	121-14-2		U	5.00	2.50
2,6-Dinitrotoluene	606-20-2		U	5.00	2.50
2-Chloronaphthalene	91-58-7		U	5.00	2.50
2-Chlorophenol	95-57-8		U	5.00	2.50
2-Methylnaphthalene	91-57-6		U	5.00	2.50
2-Methylphenol	95-48-7		U	5.00	2.50
2-Nitroaniline	88-74-4		U	25.0	12.5
2-Nitrophenol	88-75-5		U	5.00	2.50
3,3'-Dichlorobenzidine	91-94-1		U	10.0	2.50
3-,4-Methylphenol	106-44-5		U	5.00	2.50
3-Nitroaniline	99-09-2		U	25.0	12.5
4,6-Dinitro-2-methylphenol	534-52-1		U	25.0	12.5
4-Bromophenyl-phenylether	101-55-3		U	5.00	2.50
4-Chloro-3-methylphenol	59-50-7		U	5.00	2.50
4-Chloroaniline	106-47-8		U	5.00	2.50
4-Chlorophenyl-phenyl ether	7005-72-3		U	5.00	2.50
4-Nitroaniline	100-01-6		U	25.0	12.5
4-Nitrophenol	100-02-7		U	25.0	12.5
Acenaphthene	83-32-9		U	5.00	2.50
Acenaphthylene	208-96-8		U	5.00	2.50
Anthracene	120-12-7		U	5.00	2.50
Benzo(a)anthracene	56-55-3		U	5.00	2.50
Benzo(a)pyrene	50-32-8		U	5.00	2.50
Benzo(b)fluoranthene	205-99-2		U	5.00	2.50
Benzo(g,h,i)Perylene	191-24-2		U	5.00	2.50
Benzo(k)fluoranthene	207-08-9		U	5.00	2.50
Benzoic acid	65-85-0		U	25.0	12.5
Benzyl alcohol	100-51-6		U	5.00	2.50
Bis(2-Chloroethoxy)Methane	111-91-1		U	5.00	2.50
Bis(2-Chloroethyl)ether	111-44-4		U	5.00	2.50
bis(2-Chloroisopropyl)ether	108-60-1		U	5.00	2.50
bis(2-Ethylhexyl)phthalate	117-81-7	37.8		10.0	3.00
Butylbenzylphthalate	85-68-7		U	5.00	2.50
Chrysene	218-01-9		U	5.00	2.50
Di-N-Butylphthalate	84-74-2		U	5.00	2.50
Di-n-octylphthalate	117-84-0		U	5.00	2.50
Dibenzo(a,h)Anthracene	53-70-3		U	5.00	2.50
Dibenzofuran	132-64-9		U	5.00	2.50
Diethylphthalate	84-66-2		U	5.00	2.50
Dimethylphthalate	131-11-3		U	5.00	2.50
Fluoranthene	206-44-0		U	5.00	2.50
Fluorene	86-73-7		U	5.00	2.50
Hexachlorobenzene	118-74-1		U	5.00	2.50
Hexachlorobutadiene	87-68-3		U	5.00	2.50
Hexachlorocyclopentadiene	77-47-4		U	5.00	2.50
Hexachloroethane	67-72-1		U	5.00	2.50
Indeno(1,2,3-cd)pyrene	193-39-5		U	5.00	2.50
Isophorone	78-59-1		U	5.00	2.50
N-Nitrosodiphenylamine	86-30-6		U	5.00	2.50
N-Nitrosodipropylamine	621-64-7		U	5.00	2.50

4-BB

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-02
Client ID: 47WW13-100804
Matrix: Water
Workgroup Number: WG339173
Collect Date: 08/04/2010 14:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3510C
Analytical Method: 8270C
Analyst: CAA
Dilution: 1
Units: ug/L

Instrument: HPMS12
Prep Date: 08/06/2010 10:15
Cal Date: 08/09/2010 18:55
Run Date: 08/10/2010 00:50
File ID: 12M31137

Analyte	CAS. Number	Result	Qual	PQL	SDL
Naphthalene	91-20-3		U	5.00	2.50
Nitrobenzene	98-95-3		U	5.00	2.50
Pentachlorophenol	87-86-5		U	25.0	12.5
Phenanthrene	85-01-8		U	5.00	2.50
Phenol	108-95-2		U	5.00	2.50
Pyrene	129-00-0		U	5.00	2.50

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	66.9	10	123	
2-Fluorobiphenyl	51.4	43	116	
2-Fluorophenol	31.3	21	100	
Nitrobenzene-d5	64.6	35	114	
p-Terphenyl-d14	47.1	33	141	
Phenol-d5	21.5	10	94	

U Not detected at or above adjusted sample detection limit

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-03
Client ID: EQUIPMENT RINSE-100804
Matrix: Water
Workgroup Number: WG339173
Collect Date: 08/04/2010 16:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3510C
Analytical Method: 8270C
Analyst: CAA
Dilution: 1
Units: ug/L

Instrument: HPMS12
Prep Date: 08/06/2010 10:15
Cal Date: 08/09/2010 18:55
Run Date: 08/10/2010 01:22
File ID: 12M31138

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,4-Trichlorobenzene	120-82-1		U	5.00	2.50
1,2-Dichlorobenzene	95-50-1		U	5.00	2.50
1,3-Dichlorobenzene	541-73-1		U	5.00	2.50
1,4-Dichlorobenzene	106-46-7		U	5.00	2.50
2,4,5-Trichlorophenol	95-95-4		U	5.00	2.50
2,4,6-Trichlorophenol	88-06-2		U	5.00	2.50
2,4-Dichlorophenol	120-83-2		U	5.00	2.50
2,4-Dimethylphenol	105-67-9		U	5.00	2.50
2,4-Dinitrophenol	51-28-5		U	25.0	12.5
2,4-Dinitrotoluene	121-14-2		U	5.00	2.50
2,6-Dinitrotoluene	606-20-2		U	5.00	2.50
2-Chloronaphthalene	91-58-7		U	5.00	2.50
2-Chlorophenol	95-57-8		U	5.00	2.50
2-Methylnaphthalene	91-57-6		U	5.00	2.50
2-Methylphenol	95-48-7		U	5.00	2.50
2-Nitroaniline	88-74-4		U	25.0	12.5
2-Nitrophenol	88-75-5		U	5.00	2.50
3,3'-Dichlorobenzidine	91-94-1		U	10.0	2.50
3-,4-Methylphenol	106-44-5		U	5.00	2.50
3-Nitroaniline	99-09-2		U	25.0	12.5
4,6-Dinitro-2-methylphenol	534-52-1		U	25.0	12.5
4-Bromophenyl-phenylether	101-55-3		U	5.00	2.50
4-Chloro-3-methylphenol	59-50-7		U	5.00	2.50
4-Chloroaniline	106-47-8		U	5.00	2.50
4-Chlorophenyl-phenyl ether	7005-72-3		U	5.00	2.50
4-Nitroaniline	100-01-6		U	25.0	12.5
4-Nitrophenol	100-02-7		U	25.0	12.5
Acenaphthene	83-32-9		U	5.00	2.50
Acenaphthylene	208-96-8		U	5.00	2.50
Anthracene	120-12-7		U	5.00	2.50
Benzo(a)anthracene	56-55-3		U	5.00	2.50
Benzo(a)pyrene	50-32-8		U	5.00	2.50
Benzo(b)fluoranthene	205-99-2		U	5.00	2.50
Benzo(g,h,i)Perylene	191-24-2		U	5.00	2.50
Benzo(k)fluoranthene	207-08-9		U	5.00	2.50
Benzoic acid	65-85-0		U	25.0	12.5
Benzyl alcohol	100-51-6		U	5.00	2.50
Bis(2-Chloroethoxy)Methane	111-91-1		U	5.00	2.50
Bis(2-Chloroethyl)ether	111-44-4		U	5.00	2.50
bis(2-Chloroisopropyl)ether	108-60-1		U	5.00	2.50
bis(2-Ethylhexyl)phthalate	117-81-7	41.3		10.0	3.00
Butylbenzylphthalate	85-68-7		U	5.00	2.50
Chrysene	218-01-9		U	5.00	2.50
Di-N-Butylphthalate	84-74-2		U	5.00	2.50
Di-n-octylphthalate	117-84-0		U	5.00	2.50
Dibenzo(a,h)Anthracene	53-70-3		U	5.00	2.50
Dibenzofuran	132-64-9		U	5.00	2.50
Diethylphthalate	84-66-2		U	5.00	2.50
Dimethylphthalate	131-11-3		U	5.00	2.50
Fluoranthene	206-44-0		U	5.00	2.50
Fluorene	86-73-7		U	5.00	2.50
Hexachlorobenzene	118-74-1		U	5.00	2.50
Hexachlorobutadiene	87-68-3		U	5.00	2.50
Hexachlorocyclopentadiene	77-47-4		U	5.00	2.50
Hexachloroethane	67-72-1		U	5.00	2.50
Indeno(1,2,3-cd)pyrene	193-39-5		U	5.00	2.50
Isophorone	78-59-1		U	5.00	2.50
N-Nitrosodiphenylamine	86-30-6		U	5.00	2.50
N-Nitrosodipropylamine	621-64-7		U	5.00	2.50

quality samples u-EB

Microbac

00104401

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-03
Client ID: EQUIPMENT RINSE-100804
Matrix: Water
Workgroup Number: WG339173
Collect Date: 08/04/2010 16:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3510C
Analytical Method: 8270C
Analyst: CAA
Dilution: 1
Units: ug/L

Instrument: HPMS12
Prep Date: 08/06/2010 10:15
Cal Date: 08/09/2010 18:55
Run Date: 08/10/2010 01:22
File ID: 12M31138

Analyte	CAS. Number	Result	Qual	PQL	SDL
Naphthalene	91-20-3		U	5.00	2.50
Nitrobenzene	98-95-3		U	5.00	2.50
Pentachlorophenol	87-86-5		U	25.0	12.5
Phenanthrene	85-01-8		U	5.00	2.50
Phenol	108-95-2		U	5.00	2.50
Pyrene	129-00-0		U	5.00	2.50

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	75.1	10	123	
2-Fluorobiphenyl	66.8	43	116	
2-Fluorophenol	31.7	21	100	
Nitrobenzene-d5	66.0	35	114	
p-Terphenyl-d14	76.5	33	141	
Phenol-d5	21.2	10	94	

U Not detected at or above adjusted sample detection limit

8/19/10

Microbac

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-04
Client ID: 47WW14-100804
Matrix: Water
Workgroup Number: WG339173
Collect Date: 08/04/2010 15:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3510C
Analytical Method: 8270C
Analyst: CAA
Dilution: 1
Units: ug/L

Instrument: HPMS12
Prep Date: 08/06/2010 10:15
Cal Date: 08/09/2010 18:55
Run Date: 08/10/2010 01:55
File ID: 12M31139

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,4-Trichlorobenzene	120-82-1		U	5.00	2.50
1,2-Dichlorobenzene	95-50-1		U	5.00	2.50
1,3-Dichlorobenzene	541-73-1		U	5.00	2.50
1,4-Dichlorobenzene	106-46-7		U	5.00	2.50
2,4,5-Trichlorophenol	95-95-4		U	5.00	2.50
2,4,6-Trichlorophenol	88-06-2		U	5.00	2.50
2,4-Dichlorophenol	120-83-2		U	5.00	2.50
2,4-Dimethylphenol	105-67-9		U	5.00	2.50
2,4-Dinitrophenol	51-28-5		U	25.0	12.5
2,4-Dinitrotoluene	121-14-2		U	5.00	2.50
2,6-Dinitrotoluene	606-20-2		U	5.00	2.50
2-Chloronaphthalene	91-58-7		U	5.00	2.50
2-Chlorophenol	95-57-8		U	5.00	2.50
2-Methylnaphthalene	91-57-6		U	5.00	2.50
2-Methylphenol	95-48-7		U	5.00	2.50
2-Nitroaniline	88-74-4		U	25.0	12.5
2-Nitrophenol	88-75-5		U	5.00	2.50
3,3'-Dichlorobenzidine	91-94-1		U	10.0	2.50
3-,4-Methylphenol	106-44-5		U	5.00	2.50
3-Nitroaniline	99-09-2		U	25.0	12.5
4,6-Dinitro-2-methylphenol	534-52-1		U	25.0	12.5
4-Bromophenyl-phenylether	101-55-3		U	5.00	2.50
4-Chloro-3-methylphenol	59-50-7		U	5.00	2.50
4-Chloroaniline	106-47-8		U	5.00	2.50
4-Chlorophenyl-phenyl ether	7005-72-3		U	5.00	2.50
4-Nitroaniline	100-01-6		U	25.0	12.5
4-Nitrophenol	100-02-7		U	25.0	12.5
Acenaphthene	83-32-9		U	5.00	2.50
Acenaphthylene	208-96-8		U	5.00	2.50
Anthracene	120-12-7		U	5.00	2.50
Benzo(a)anthracene	56-55-3		U	5.00	2.50
Benzo(a)pyrene	50-32-8		U	5.00	2.50
Benzo(b)fluoranthene	205-99-2		U	5.00	2.50
Benzo(g,h,i)Perylene	191-24-2		U	5.00	2.50
Benzo(k)fluoranthene	207-08-9		U	5.00	2.50
Benzoic acid	65-85-0		U	25.0	12.5
Benzyl alcohol	100-51-6		U	5.00	2.50
Bis(2-Chloroethoxy)Methane	111-91-1		U	5.00	2.50
Bis(2-Chloroethyl)ether	111-44-4		U	5.00	2.50
bis(2-Chloroisopropyl)ether	108-60-1		U	5.00	2.50
bis(2-Ethylhexyl)phthalate	117-81-7	14.2		10.0	3.00
Butylbenzylphthalate	85-68-7		U	5.00	2.50
Chrysene	218-01-9		U	5.00	2.50
Di-N-Butylphthalate	84-74-2		U	5.00	2.50
Di-n-octylphthalate	117-84-0		U	5.00	2.50
Dibenzo(a,h)Anthracene	53-70-3		U	5.00	2.50
Dibenzofuran	132-64-9		U	5.00	2.50
Diethylphthalate	84-66-2		U	5.00	2.50
Dimethylphthalate	131-11-3		U	5.00	2.50
Fluoranthene	206-44-0		U	5.00	2.50
Fluorene	86-73-7		U	5.00	2.50
Hexachlorobenzene	118-74-1		U	5.00	2.50
Hexachlorobutadiene	87-68-3		U	5.00	2.50
Hexachlorocyclopentadiene	77-47-4		U	5.00	2.50
Hexachloroethane	67-72-1		U	5.00	2.50
Indeno(1,2,3-cd)pyrene	193-39-5		U	5.00	2.50
Isophorone	78-59-1		U	5.00	2.50
N-Nitrosodiphenylamine	86-30-6		U	5.00	2.50
N-Nitrosodipropylamine	621-64-7		U	5.00	2.50

U-EB

Microbac

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-04
Client ID: 47WW14-100804
Matrix: Water
Workgroup Number: WG339173
Collect Date: 08/04/2010 15:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3510C
Analytical Method: 8270C
Analyst: CAA
Dilution: 1
Units: ug/L

Instrument: HPMS12
Prep Date: 08/06/2010 10:15
Cal Date: 08/09/2010 18:55
Run Date: 08/10/2010 01:55
File ID: 12M31139

Analyte	CAS. Number	Result	Qual	PQL	SDL
Naphthalene	91-20-3		U	5.00	2.50
Nitrobenzene	98-95-3		U	5.00	2.50
Pentachlorophenol	87-86-5		U	25.0	12.5
Phenanthrene	85-01-8		U	5.00	2.50
Phenol	108-95-2		U	5.00	2.50
Pyrene	129-00-0		U	5.00	2.50

Surrogate	% Recovery	Lower	Upper	Qual
2,4,6-Tribromophenol	73.8	10	123	
2-Fluorobiphenyl	59.8	43	116	
2-Fluorophenol	30.5	21	100	
Nitrobenzene-d5	60.7	35	114	
p-Terphenyl-d14	66.0	33	141	
Phenol-d5	19.9	10	94	

U Not detected at or above adjusted sample detection limit

8/20/10

2.2.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080104
Blank File ID: 12M31130
Prep Date: 08/06/10 10:15
Analyzed Date: 08/09/10 21:06
Analyst: CAA

Work Group: WG339173
Blank Sample ID: WG339087-01
Instrument ID: HPMS12
Method: 8270C

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG339087-02	12M31131	08/09/10 21:38	01
LCS2	WG339087-03	12M31132	08/09/10 22:10	01
47WW30-100804	L10080104-01	12M31136	08/10/10 00:18	01
47WW13-100804	L10080104-02	12M31137	08/10/10 00:50	01
EQUIPMENT RINSE-100804	L10080104-03	12M31138	08/10/10 01:22	01
47WW14-100804	L10080104-04	12M31139	08/10/10 01:55	01

Report Name: BLANK_SUMMARY
PDF File ID: 1747890
Report generated 08/10/2010 11:38

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/06/10 10:15 Sample ID:WG339087-01
Instrument ID:HPMS12 Run Date:08/09/10 21:06 Prep Method:3510C
File ID:12M31130 Analyst:CAA Method:8270C
Workgroup (AAB#):WG339173 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID:HPMS12-09-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
1,2,4-Trichlorobenzene	2.50	5.00	2.50	1	U
1,2-Dichlorobenzene	2.50	5.00	2.50	1	U
1,3-Dichlorobenzene	2.50	5.00	2.50	1	U
1,4-Dichlorobenzene	2.50	5.00	2.50	1	U
2,4,5-Trichlorophenol	2.50	5.00	2.50	1	U
2,4,6-Trichlorophenol	2.50	5.00	2.50	1	U
2,4-Dichlorophenol	2.50	5.00	2.50	1	U
2,4-Dimethylphenol	2.50	5.00	2.50	1	U
2,4-Dinitrophenol	12.5	25.0	12.5	1	U
2,4-Dinitrotoluene	2.50	5.00	2.50	1	U
2,6-Dinitrotoluene	2.50	5.00	2.50	1	U
2-Chloronaphthalene	2.50	5.00	2.50	1	U
2-Chlorophenol	2.50	5.00	2.50	1	U
2-Methylnaphthalene	2.50	5.00	2.50	1	U
2-Methylphenol	2.50	5.00	2.50	1	U
2-Nitroaniline	12.5	25.0	12.5	1	U
2-Nitrophenol	2.50	5.00	2.50	1	U
3,3'-Dichlorobenzidine	2.50	10.0	2.50	1	U
3-,4-Methylphenol	2.50	5.00	2.50	1	U
3-Nitroaniline	12.5	25.0	12.5	1	U
4,6-Dinitro-2-methylphenol	12.5	25.0	12.5	1	U
4-Bromophenyl-phenylether	2.50	5.00	2.50	1	U
4-Chloro-3-methylphenol	2.50	5.00	2.50	1	U
4-Chloroaniline	2.50	5.00	2.50	1	U
4-Chlorophenyl-phenyl ether	2.50	5.00	2.50	1	U
4-Nitroaniline	12.5	25.0	12.5	1	U
4-Nitrophenol	12.5	25.0	12.5	1	U
Acenaphthene	2.50	5.00	2.50	1	U
Acenaphthylene	2.50	5.00	2.50	1	U
Anthracene	2.50	5.00	2.50	1	U
Benzo(a)anthracene	2.50	5.00	2.50	1	U
Benzo(a)pyrene	2.50	5.00	2.50	1	U
Benzo(b)fluoranthene	2.50	5.00	2.50	1	U
Benzo(g,h,i)Perylene	2.50	5.00	2.50	1	U
Benzo(k)fluoranthene	2.50	5.00	2.50	1	U
Benzoic acid	12.5	25.0	12.5	1	U
Benzyl alcohol	2.50	5.00	2.50	1	U
Bis(2-Chloroethoxy)Methane	2.50	5.00	2.50	1	U
Bis(2-Chloroethyl)ether	2.50	5.00	2.50	1	U
bis(2-Chloroisopropyl)ether	2.50	5.00	2.50	1	U
bis(2-Ethylhexyl)phthalate	3.00	10.0	3.00	1	U
Butylbenzylphthalate	2.50	5.00	2.50	1	U

Report Name:BLANK
PDF ID: 1747631
10-AUG-2010 11:38

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/06/10 10:15 Sample ID:WG339087-01
Instrument ID:HPMS12 Run Date:08/09/10 21:06 Prep Method:3510C
File ID:12M31130 Analyst:CAA Method:8270C
Workgroup (AAB#):WG339173 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID:HPMS12-09-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Chrysene	2.50	5.00	2.50	1	U
Di-N-Butylphthalate	2.50	5.00	2.50	1	U
Di-n-octylphthalate	2.50	5.00	2.50	1	U
Dibenzo(a,h)Anthracene	2.50	5.00	2.50	1	U
Dibenzofuran	2.50	5.00	2.50	1	U
Diethylphthalate	2.50	5.00	2.50	1	U
Dimethylphthalate	2.50	5.00	2.50	1	U
Fluoranthene	2.50	5.00	2.50	1	U
Fluorene	2.50	5.00	2.50	1	U
Hexachlorobenzene	2.50	5.00	2.50	1	U
Hexachlorobutadiene	2.50	5.00	2.50	1	U
Hexachlorocyclopentadiene	2.50	5.00	2.50	1	U
Hexachloroethane	2.50	5.00	2.50	1	U
Indeno(1,2,3-cd)pyrene	2.50	5.00	2.50	1	U
Isophorone	2.50	5.00	2.50	1	U
N-Nitrosodiphenylamine	2.50	5.00	2.50	1	U
N-Nitrosodipropylamine	2.50	5.00	2.50	1	U
Naphthalene	2.50	5.00	2.50	1	U
Nitrobenzene	2.50	5.00	2.50	1	U
Pentachlorophenol	12.5	25.0	12.5	1	U
Phenanthrene	2.50	5.00	2.50	1	U
Phenol	2.50	5.00	2.50	1	U
Pyrene	2.50	5.00	2.50	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
2,4,6-Tribromophenol	76.4	10 - 123	PASS
2-Fluorobiphenyl	56.7	43 - 116	PASS
2-Fluorophenol	33.2	21 - 100	PASS
Nitrobenzene-d5	55.7	35 - 114	PASS
p-Terphenyl-d14	92.5	33 - 141	PASS
Phenol-d5	21.3	10 - 94	PASS

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1747631
10-AUG-2010 11:38

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080104 Analyst: CAA Prep Method: 3510C
Instrument ID: HPMS12 Matrix: Water Method: 8270C
Workgroup (AAB#): WG339173 Units: ug/L
QC Key: STD Lot #: STD39596

Sample ID: WG339087-02 LCS File ID: 12M31131 Run Date: 08/09/2010 21:38
Sample ID: WG339087-03 LCS2 File ID: 12M31132 Run Date: 08/09/2010 22:10

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
1,2,4-Trichlorobenzene	50.0	31.2	62.5	50.0	29.0	58.0	7.51	25 - 105	30	
1,2-Dichlorobenzene	50.0	31.6	63.1	50.0	29.1	58.3	7.98	25 - 110	30	
1,3-Dichlorobenzene	50.0	30.4	60.9	50.0	28.3	56.6	7.30	25 - 110	30	
1,4-Dichlorobenzene	50.0	30.8	61.5	50.0	28.3	56.5	8.42	25 - 110	30	
2,4,5-Trichlorophenol	50.0	38.8	77.7	50.0	36.7	73.4	5.70	35 - 120	30	
2,4,6-Trichlorophenol	50.0	37.6	75.2	50.0	34.5	69.1	8.47	30 - 120	30	
2,4-Dichlorophenol	50.0	35.3	70.7	50.0	32.7	65.4	7.80	20 - 110	30	
2,4-Dimethylphenol	50.0	36.6	73.3	50.0	34.7	69.4	5.41	20 - 120	30	
2,4-Dinitrophenol	50.0	52.6	105	50.0	48.7	97.3	7.69	20 - 140	30	
2,4-Dinitrotoluene	50.0	45.0	89.9	50.0	42.5	84.9	5.74	50 - 139	30	
2,6-Dinitrotoluene	50.0	41.1	82.3	50.0	38.1	76.2	7.74	50 - 120	30	
2-Chloronaphthalene	50.0	30.9	61.8	50.0	28.0	56.0	9.81	25 - 120	30	
2-Chlorophenol	50.0	30.5	61.1	50.0	28.2	56.4	7.91	25 - 110	30	
2-Methylnaphthalene	50.0	36.1	72.1	50.0	32.9	65.8	9.23	25 - 120	30	
2-Methylphenol	50.0	29.3	58.5	50.0	27.4	54.8	6.57	20 - 110	30	
2-Nitroaniline	50.0	42.7	85.3	50.0	39.0	78.0	9.01	45 - 115	30	
2-Nitrophenol	50.0	34.8	69.5	50.0	31.9	63.9	8.51	20 - 115	30	
3,3'-Dichlorobenzidine	50.0	32.6	65.2	50.0	49.9	99.7	41.9	30 - 140	30	#
3-,4-Methylphenol	50.0	26.9	53.7	50.0	24.9	49.8	7.55	20 - 110	30	
3-Nitroaniline	50.0	44.4	88.9	50.0	41.3	82.5	7.42	40 - 120	30	
4,6-Dinitro-2-methylphenol	50.0	52.8	106	50.0	50.7	101	3.99	40 - 145	30	
4-Bromophenyl-phenylether	50.0	40.3	80.6	50.0	37.4	74.9	7.38	40 - 115	30	
4-Chloro-3-methylphenol	50.0	36.2	72.3	50.0	34.4	68.8	4.92	25 - 110	30	
4-Chloroaniline	50.0	22.2	44.5	50.0	32.6	65.3	37.9	25 - 120	30	#
4-Chlorophenyl-phenyl ether	50.0	37.9	75.8	50.0	34.5	69.0	9.32	35 - 120	30	
4-Nitroaniline	50.0	47.0	94.1	50.0	45.5	91.0	3.35	53 - 135	30	
4-Nitrophenol	50.0	20.8	41.6	50.0	19.8	39.5	5.10	10 - 132	30	
Acenaphthene	50.0	38.5	77.1	50.0	34.9	69.9	9.85	30 - 120	30	
Acenaphthylene	50.0	37.0	73.9	50.0	33.6	67.2	9.53	30 - 120	30	
Anthracene	50.0	45.5	91.1	50.0	43.3	86.6	5.04	55 - 130	30	
Benzo(a)anthracene	50.0	46.9	93.8	50.0	46.3	92.6	1.32	60 - 130	30	
Benzo(a)pyrene	50.0	47.9	95.8	50.0	47.5	95.0	0.861	55 - 135	30	
Benzo(b)fluoranthene	50.0	43.1	86.2	50.0	42.9	85.7	0.474	45 - 125	30	
Benzo(g,h,i)Perylene	50.0	59.0	118	50.0	57.8	116	2.13	45 - 140	30	
Benzo(k)fluoranthene	50.0	48.2	96.3	50.0	46.8	93.7	2.75	55 - 140	30	
Benzoic acid	50.0	9.51	19.0	50.0	10.0	20.0	5.09	10 - 100	30	
Benzyl alcohol	50.0	33.8	67.7	50.0	30.3	60.7	10.9	20 - 110	30	
Bis(2-Chloroethoxy)Methane	50.0	27.9	55.7	50.0	25.5	51.0	8.91	20 - 105	30	
Bis(2-Chloroethyl)ether	50.0	34.4	68.9	50.0	31.6	63.2	8.53	25 - 110	30	
bis(2-Chloroisopropyl)ether	50.0	34.8	69.7	50.0	31.8	63.7	8.99	20 - 110	30	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1747632
Report generated: 08/10/2010 11:38

Microbac

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080104 Analyst:CAA Prep Method:3510C
Instrument ID:HPMS12 Matrix:Water Method:8270C
Workgroup (AAB#):WG339173 Units:ug/L
QC Key:STD Lot #:STD39596

Sample ID:WG339087-02 LCS File ID:12M31131 Run Date:08/09/2010 21:38
Sample ID:WG339087-03 LCS2 File ID:12M31132 Run Date:08/09/2010 22:10

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
bis(2-Ethylhexyl)phthalate	50.0	49.0	98.0	50.0	48.0	96.0	1.97	50 - 150	30	
Butylbenzylphthalate	50.0	48.9	97.7	50.0	48.1	96.3	1.52	55 - 150	30	
Chrysene	50.0	48.0	96.0	50.0	47.0	93.9	2.12	55 - 130	30	
Di-N-Butylphthalate	50.0	48.4	96.9	50.0	46.8	93.7	3.37	55 - 118	30	
Di-n-octylphthalate	50.0	48.4	96.9	50.0	48.0	95.9	0.974	40 - 146	30	
Dibenzo(a,h)Anthracene	50.0	55.2	110	50.0	54.2	108	1.89	45 - 125	30	
Dibenzofuran	50.0	38.2	76.3	50.0	34.5	69.0	10.1	35 - 115	30	
Diethylphthalate	50.0	44.2	88.3	50.0	41.3	82.6	6.63	45 - 120	30	
Dimethylphthalate	50.0	40.4	80.9	50.0	37.6	75.3	7.14	25 - 112	30	
Fluoranthene	50.0	47.8	95.7	50.0	46.6	93.3	2.54	50 - 137	30	
Fluorene	50.0	39.5	79.0	50.0	36.0	72.0	9.21	40 - 120	30	
Hexachlorobenzene	50.0	42.5	84.9	50.0	39.8	79.6	6.43	50 - 130	30	
Hexachlorobutadiene	50.0	34.2	68.3	50.0	31.6	63.2	7.81	24 - 105	30	
Hexachlorocyclopentadiene	50.0	27.4	54.9	50.0	26.8	53.5	2.47	20 - 143	30	
Hexachloroethane	50.0	29.1	58.1	50.0	27.1	54.2	7.06	25 - 95	30	
Indeno(1,2,3-cd)pyrene	50.0	55.5	111	50.0	54.7	109	1.53	50 - 135	30	
Isophorone	50.0	32.5	65.0	50.0	30.0	60.0	7.89	30 - 110	30	
N-Nitrosodiphenylamine	50.0	43.7	87.3	50.0	40.6	81.3	7.22	40 - 110	30	
N-Nitrosodipropylamine	50.0	35.8	71.6	50.0	33.0	66.1	8.04	28 - 120	30	
Naphthalene	50.0	34.0	68.1	50.0	31.2	62.5	8.62	25 - 110	30	
Nitrobenzene	50.0	34.7	69.3	50.0	31.8	63.6	8.65	30 - 110	30	
Pentachlorophenol	50.0	56.1	112	50.0	54.1	108	3.60	40 - 140	30	
Phenanthrene	50.0	44.4	88.7	50.0	41.6	83.2	6.43	55 - 120	30	
Phenol	50.0	13.3	26.5	50.0	11.9	23.8	10.8	10 - 120	30	
Pyrene	50.0	46.1	92.2	50.0	45.4	90.8	1.46	55 - 130	30	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
2,4,6-Tribromophenol	90.6	84.6	10 - 123	PASS
2-Fluorobiphenyl	72.0	65.9	43 - 116	PASS
2-Fluorophenol	39.9	35.7	21 - 100	PASS
Nitrobenzene-d5	71.5	64.6	35 - 114	PASS
p-Terphenyl-d14	89.6	90.7	33 - 141	PASS
Phenol-d5	26.1	22.9	10 - 94	PASS

* EXCEEDS %REC LIMIT

\# EXCEEDS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1747632
Report generated: 08/10/2010 11:38

2.2.2 LC/MS Data (6850)

2.2.2.1 Summary Data

LABORATORY REPORT

L10080104

08/19/10 15:49

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47WW30-100804	L10080104-01	6850	1	05-AUG-10
47WW13-100804	L10080104-02	6850	1	05-AUG-10
EQUIPMENT RINSE-100804	L10080104-03	6850	1	05-AUG-10
47WW14-100804	L10080104-04	6850	1	05-AUG-10
47WW14-100804-FD	L10080104-05	6850	1	05-AUG-10

Report Number: **L10080104**

Report Date : **August 19, 2010**

Sample Number:	L10080104-01	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47MW30-100804	Prep Method:	6850	Prep Date:	08/10/2010 13:45
Matrix:	Water	Analytical Method:	6850	Cal Date:	08/10/2010 16:53
Workgroup Number:	WG339397	Analyst:	WTD	Run Date:	08/11/2010 04:58
Collect Date:	08/04/2010 12:40	Dilution:	1	File ID:	1LM.LM04503
Sample Tag:	01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	1.47		0.200	0.100

8/19/10

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-02
Client ID: 47WW13-100804
Matrix: Water
Workgroup Number: WG339397
Collect Date: 08/04/2010 14:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/L

Instrument: LCMS1
Prep Date: 08/10/2010 13:45
Cal Date: 08/10/2010 16:53
Run Date: 08/11/2010 05:21
File ID: 1LM.LM04504

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	0.200	0.100

U Not detected at or above adjusted sample detection limit

8/9/10

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-03
Client ID: EQUIPMENT RINSE-100804
Matrix: Water
Workgroup Number: WG339397
Collect Date: 08/04/2010 16:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/L

Instrument: LCMS1
Prep Date: 08/10/2010 13:45
Cal Date: 08/10/2010 16:53
Run Date: 08/11/2010 06:55
File ID: 1LM.LM04508

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	0.200	0.100

U Not detected at or above adjusted sample detection limit

8/20/10

Microbac

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-04
Client ID: 47WW14-100804
Matrix: Water
Workgroup Number: WG339397
Collect Date: 08/04/2010 15:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/L

Instrument: LCMS1
Prep Date: 08/10/2010 13:45
Cal Date: 08/10/2010 16:53
Run Date: 08/11/2010 07:18
File ID: 1LM.LM04509

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	0.200	0.100

U Not detected at or above adjusted sample detection limit

Report Number: L10080104
Report Date : August 19, 2010

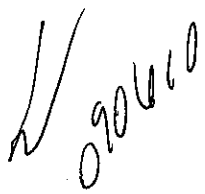
Sample Number: L10080104-05
Client ID: 47WW14-100804-FD
Matrix: Water
Workgroup Number: WG339397
Collect Date: 08/04/2010 15:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/L

Instrument: LCMS1
Prep Date: 08/10/2010 13:45
Cal Date: 08/10/2010 16:53
Run Date: 08/11/2010 07:42
File ID: 1LM.LM04510

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	0.200	0.100

U Not detected at or above adjusted sample detection limit



2.2.2.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080104
Blank File ID: 1LM.LM04496
Prep Date: 08/10/10 13:45
Analyzed Date: 08/11/10 02:14
Analyst: WTD

Work Group: WG339397
Blank Sample ID: WG339397-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG339397-05	1LM.LM04493	08/11/10 01:04	01
MCT	WG339397-01	1LM.LM04495	08/11/10 01:51	01
LCS	WG339397-03	1LM.LM04497	08/11/10 02:38	01
LCS2	WG339397-04	1LM.LM04498	08/11/10 03:01	01
47WW30-100804	L10080104-01	1LM.LM04503	08/11/10 04:58	01
47WW13-100804	L10080104-02	1LM.LM04504	08/11/10 05:21	01
QCMRL	WG339397-06	1LM.LM04506	08/11/10 06:08	01
EQUIPMENT RINSE-100804	L10080104-03	1LM.LM04508	08/11/10 06:55	01
47WW14-100804	L10080104-04	1LM.LM04509	08/11/10 07:18	01
47WW14-100804-FD	L10080104-05	1LM.LM04510	08/11/10 07:42	01
QCMRL	WG339397-07	1LM.LM04518	08/11/10 10:49	01

Report Name: BLANK_SUMMARY
PDF File ID: 1750426
Report generated 08/17/2010 09:56

Microbac®

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/10/10 13:45 Sample ID:WG339397-02
Instrument ID:LCMS1 Run Date:08/11/10 02:14 Prep Method:6850
File ID:1LM.LM04496 Analyst:WTD Method:6850
Workgroup (AAB#):WG339397 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-10-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.100	0.200	0.100	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1750427
17-AUG-2010 09:56

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080104 Analyst:WTD Prep Method:6850
Instrument ID:LCMS1 Matrix:Water Method:6850
Workgroup (AAB#):WG339397 Units:ug/L
QC Key:STD Lot #:STD40370
Sample ID:WG339397-03 LCS File ID:1LM.LM04497 Run Date:08/11/2010 02:38
Sample ID:WG339397-04 LCS2 File ID:1LM.LM04498 Run Date:08/11/2010 03:01

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	0.200	0.212	106	0.200	0.223	112	5.06	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1750428
Report generated: 08/17/2010 09:56

Microbac

Conductivity Probe Calibration Check: 1414 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG339397-01 MCT	10,410	NA
-02 BLK	0.0	↓
-03 LCS	0.0	
-04 LCS2	0.0	
L10080063-01	1265	
-02	3890	
-03	0.0	
L10080069-02	736	
L10080104-01	5860	
-02	173	
-03	0.3	
-04	2180	
-05	2130	
L10080122-01	1068	
-02	1067	
L10080140-01	2050	
-02	0.7	
L10080105-02	2600	↓

Analyst

08-11-10 / 0855
Date/Time

DCN#83998

2.3.1 Metals I C P Data

2.3.1.1 Summary Data

LABORATORY REPORT

L10080104

08/19/10 15:49

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47WW30-100804	L10080104-01	6010B	1	05-AUG-10
47WW30-100804	L10080104-01	6010B	10	05-AUG-10
47WW13-100804	L10080104-02	6010B	1	05-AUG-10
EQUIPMENT RINSE-100804	L10080104-03	6010B	1	05-AUG-10
47WW14-100804	L10080104-04	6010B	1	05-AUG-10
47WW14-100804	L10080104-04	6010B	10	05-AUG-10
47WW14-100804-FD	L10080104-05	6010B	1	05-AUG-10
47WW14-100804-FD	L10080104-05	6010B	10	05-AUG-10

00104426

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-01
Client ID: 47WW30-100804
Matrix: Water
Workgroup Number: WG339125
Collect Date: 08/04/2010 12:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3005A
Analytical Method: 6010B
Analyst: PDM
Dilution: 1
Units: mg/L

Instrument: PE-ICP2
Prep Date: 08/06/2010 06:49
Cal Date: 08/06/2010 13:20
Run Date: 08/06/2010 21:36
File ID: P2.080610.213625

Analyte	CAS. Number	Result	Qual	PQL	SDL
Aluminum, Total	7429-90-5	3.61		0.100	0.0500
Beryllium, Total	7440-41-7		U	0.00200	0.000500
Calcium, Total	7440-70-2	188		0.200	0.100
Cobalt, Total	7440-48-4	0.00615		0.00500	0.00250
Iron, Total	7439-89-6	4.69		0.100	0.0250
Magnesium, Total	7439-95-4	96.9		0.500	0.250
Potassium, Total	7440-09-7	2.79		1.00	0.250
Vanadium, Total	7440-62-2	0.00818	J	0.0100	0.00500
Zinc, Total	7440-66-6	0.0139	J	0.0200	0.00500

J
J

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

8/20/10

Microbac

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-01
Client ID: 47WW30-100804
Matrix: Water
Workgroup Number: WG339125
Collect Date: 08/04/2010 12:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 3005A
Analytical Method: 6010B
Analyst: PDM
Dilution: 10
Units: mg/L

Instrument: PE-ICP2
Prep Date: 08/06/2010 06:49
Cal Date: 08/09/2010 10:33
Run Date: 08/09/2010 17:41
File ID: P2.080910.174135

Analyte	CAS. Number	Result	Qual	PQL	SDL
Sodium, Total	7440-23-5	673		5.00	2.50



Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-02
Client ID: 47WW13-100804
Matrix: Water
Workgroup Number: WG339125
Collect Date: 08/04/2010 14:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3005A
Analytical Method: 6010B
Analyst: PDM
Dilution: 1
Units: mg/L

Instrument: PE-ICP2
Prep Date: 08/06/2010 06:49
Cal Date: 08/06/2010 13:20
Run Date: 08/06/2010 21:42
File ID: P2.080610.214209

Analyte	CAS. Number	Result	Qual	PQL	SDL
Aluminum, Total	7429-90-5	13.4		0.100	0.0500
Beryllium, Total	7440-41-7	0.000879	J	0.00200	0.000500
Calcium, Total	7440-70-2	3.12		0.200	0.100
Cobalt, Total	7440-48-4	0.0147		0.00500	0.00250
Iron, Total	7439-89-6	11.4		0.100	0.0250
Magnesium, Total	7439-95-4	1.92		0.500	0.250
Potassium, Total	7440-09-7	1.17		1.00	0.250
Sodium, Total	7440-23-5	27.6		0.500	0.250
Vanadium, Total	7440-62-2	0.0186		0.0100	0.00500
Zinc, Total	7440-66-6	0.0317		0.0200	0.00500

J

J The analyte was positively identified, but the quantitation was below the RL

Report Number: L10080104
Report Date : August 19, 2010

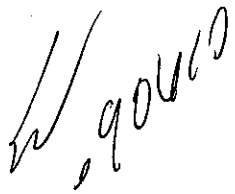
Sample Number: L10080104-03
Client ID: EQUIPMENT RINSE-100804
Matrix: Water
Workgroup Number: WG339125
Collect Date: 08/04/2010 16:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3005A
Analytical Method: 6010B
Analyst: PDM
Dilution: 1
Units: mg/L

Instrument: PE-ICP2
Prep Date: 08/06/2010 06:49
Cal Date: 08/06/2010 13:20
Run Date: 08/06/2010 21:48
File ID: P2.080610.214852

Analyte	CAS. Number	Result	Qual	PQL	SDL
Aluminum, Total	7429-90-5		U	0.100	0.0500
Beryllium, Total	7440-41-7		U	0.00200	0.000500
Calcium, Total	7440-70-2		U	0.200	0.100
Cobalt, Total	7440-48-4		U	0.00500	0.00250
Iron, Total	7439-89-6		U	0.100	0.0250
Magnesium, Total	7439-95-4		U	0.500	0.250
Potassium, Total	7440-09-7		U	1.00	0.250
Sodium, Total	7440-23-5		U	0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500
Zinc, Total	7440-66-6		U	0.0200	0.00500

U Not detected at or above adjusted sample detection limit



Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-04
Client ID: 47WW14-100804
Matrix: Water
Workgroup Number: WG339125
Collect Date: 08/04/2010 15:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3005A
Analytical Method: 6010B
Analyst: PDM
Dilution: 1
Units: mg/L

Instrument: PE-ICP2
Prep Date: 08/06/2010 06:49
Cal Date: 08/06/2010 13:20
Run Date: 08/06/2010 21:55
File ID: P2.080610.215526

Analyte	CAS. Number	Result	Qual	PQL	SDL
Aluminum, Total	7429-90-5		U	0.100	0.0500
Beryllium, Total	7440-41-7		U	0.00200	0.000500
Calcium, Total	7440-70-2	71.6		0.200	0.100
Cobalt, Total	7440-48-4		U	0.00500	0.00250
Iron, Total	7439-89-6	0.321		0.100	0.0250
Magnesium, Total	7439-95-4	46.9		0.500	0.250
Potassium, Total	7440-09-7	1.61		1.00	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500
Zinc, Total	7440-66-6		U	0.0200	0.00500

U Not detected at or above adjusted sample detection limit

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-04
Client ID: 47WW14-100804
Matrix: Water
Workgroup Number: WG339125
Collect Date: 08/04/2010 15:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 3005A
Analytical Method: 6010B
Analyst: PDM
Dilution: 10
Units: mg/L

Instrument: PE-ICP2
Prep Date: 08/06/2010 06:49
Cal Date: 08/09/2010 10:33
Run Date: 08/09/2010 17:48
File ID: P2.080910.174810

Analyte	CAS. Number	Result	Qual	PQL	SDL
Sodium, Total	7440-23-5	365		5.00	2.50

8/9/10

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-05
Client ID: 47WW14-100804-FD
Matrix: Water
Workgroup Number: WG339125
Collect Date: 08/04/2010 15:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3005A
Analytical Method: 6010B
Analyst: PDM
Dilution: 1
Units: mg/L

Instrument: PE-ICP2
Prep Date: 08/06/2010 06:49
Cal Date: 08/06/2010 13:20
Run Date: 08/06/2010 22:02
File ID: P2.080610.220207

Analyte	CAS. Number	Result	Qual	PQL	SDL
Aluminum, Total	7429-90-5		U	0.100	0.0500
Beryllium, Total	7440-41-7		U	0.00200	0.000500
Calcium, Total	7440-70-2	68.7		0.200	0.100
Cobalt, Total	7440-48-4		U	0.00500	0.00250
Iron, Total	7439-89-6	0.268		0.100	0.0250
Magnesium, Total	7439-95-4	44.8		0.500	0.250
Potassium, Total	7440-09-7	1.52		1.00	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500
Zinc, Total	7440-66-6		U	0.0200	0.00500

U Not detected at or above adjusted sample detection limit

Report Number: **L10080104**
Report Date : **August 19, 2010**

Sample Number:	L10080104-05	PrePrep Method:	NONE	Instrument:	PE-ICP2
Client ID:	47WW14-100804-FD	Prep Method:	3005A	Prep Date:	08/06/2010 06:49
Matrix:	Water	Analytical Method:	6010B	Cal Date:	08/09/2010 10:33
Workgroup Number:	WG339125	Analyst:	PDM	Run Date:	08/09/2010 17:54
Collect Date:	08/04/2010 15:40	Dilution:	10	File ID:	P2.080910.175448
Sample Tag:	DL01	Units:	mg/L		

Analyte	CAS. Number	Result	Qual	PQL	SDL
Sodium, Total	7440-23-5	346		5.00	2.50

8/9/10

2.3.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080104
Work Group: WG339125
Blank File ID: P2.080610.200825
Blank Sample ID: WG339041-02
Prep Date: 08/06/10 06:49
Instrument ID: PE-ICP2
Analyzed Date: 08/06/10 20:08
Method: 6010B
Analyst: PDM

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG339041-03	P2.080610.201459	08/06/10 20:14	01
FLT_BLK	WG339041-04	P2.080610.202712	08/06/10 20:27	01
47WW30-100804	L10080104-01	P2.080610.213625	08/06/10 21:36	01
47WW13-100804	L10080104-02	P2.080610.214209	08/06/10 21:42	01
EQUIPMENT RINSE-100804	L10080104-03	P2.080610.214852	08/06/10 21:48	01
47WW14-100804	L10080104-04	P2.080610.215526	08/06/10 21:55	01
47WW14-100804-FD	L10080104-05	P2.080610.220207	08/06/10 22:02	01
LCS	WG339041-03	P2.080910.163059	08/09/10 16:30	02
FLT_BLK	WG339041-04	P2.080910.164357	08/09/10 16:43	02
47WW30-100804	L10080104-01	P2.080910.174135	08/09/10 17:41	DL01
47WW14-100804	L10080104-04	P2.080910.174810	08/09/10 17:48	DL01
47WW14-100804-FD	L10080104-05	P2.080910.175448	08/09/10 17:54	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 1746396
Report generated 08/10/2010 10:32

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/06/10 06:49 Sample ID:WG339041-02
Instrument ID:PE-ICP2 Run Date:08/06/10 20:08 Prep Method:3005A
File ID:P2.080610.200825 Analyst:PDM Method:6010B
Workgroup (AAB#):WG339125 Matrix:Water Units:mg/L
Contract #:DACA56-94-D-0020 Cal ID:PE-ICP-06-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Aluminum, Total	0.0500	0.100	0.0500	1	U
Beryllium, Total	0.000500	0.00200	0.000500	1	U
Calcium, Total	0.100	0.200	0.100	1	U
Cobalt, Total	0.00250	0.00500	0.00250	1	U
Iron, Total	0.0250	0.100	0.0250	1	U
Magnesium, Total	0.250	0.500	0.250	1	U
Potassium, Total	0.250	1.00	0.250	1	U
Sodium, Total	0.250	0.500	-0.450	1	U
Vanadium, Total	0.00500	0.0100	0.00500	1	U
Zinc, Total	0.00500	0.0200	0.00500	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1746397
10-AUG-2010 10:32

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080104 Run Date: 08/06/2010 Sample ID: WG339041-03
Instrument ID: PE-ICP2 Run Time: 20:14 Prep Method: 3005A
File ID: P2.080610.201459 Analyst: PDM Method: 6010B
Workgroup (AAB#): WG339125 Matrix: Water Units: mg/L
QC Key: STD Lot#: STD39933 Cal ID: PE-ICP-06-AUG-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Aluminum, Total	5.00	5.16	103	85 - 115	
Beryllium, Total	0.0250	0.0256	103	85 - 115	
Calcium, Total	5.00	5.32	106	85 - 115	
Cobalt, Total	0.100	0.105	105	85 - 115	
Iron, Total	2.00	2.03	102	85 - 115	
Magnesium, Total	5.00	5.20	104	85 - 115	
Potassium, Total	25.0	26.3	105	85 - 115	
Sodium, Total	25.0	27.7	111	85 - 115	
Vanadium, Total	0.500	0.525	105	85 - 115	
Zinc, Total	0.500	0.516	103	85 - 115	

LCS - Modified 03/06/2008
PDF File ID: 1746398
Report generated: 08/10/2010 10:32

2.3.2 Metals ICP-MS Data

2.3.2.1 Summary Data

LABORATORY REPORT

L10080104

08/19/10 15:49

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47WW30-100804	L10080104-01	6020	5	05-AUG-10
47WW13-100804	L10080104-02	6020	5	05-AUG-10
EQUIPMENT RINSE-100804	L10080104-03	6020	1	05-AUG-10
47WW14-100804	L10080104-04	6020	5	05-AUG-10
47WW14-100804-FD	L10080104-05	6020	5	05-AUG-10

00104441

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-01
Client ID: 47WW30-100804
Matrix: Water
Workgroup Number: WG339267
Collect Date: 08/04/2010 12:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 3015
Analytical Method: 6020
Analyst: JYH
Dilution: 5
Units: mg/L

Instrument: ELAN-ICP
Prep Date: 08/09/2010 06:19
Cal Date: 08/10/2010 16:24
Run Date: 08/10/2010 19:45
File ID: EL.081010.194545

Analyte	CAS. Number	Result	Qual	PQL	SDL
Silver, Total	7440-22-4		U	0.00500	0.00125
Arsenic, Total	7440-38-2	0.0731		0.00500	0.00125
Barium, Total	7440-39-3	0.0582		0.0150	0.00250
Cadmium, Total	7440-43-9		U	0.00250	0.000625
Chromium, Total	7440-47-3	0.0122		0.0100	0.00250
Copper, Total	7440-50-8	0.00707	J	0.0100	0.00250
Lead, Total	7439-92-1	0.00359		0.00250	0.00125
Manganese, Total	7439-96-5	0.171		0.0100	0.00250
Nickel, Total	7440-02-0	0.0175	J	0.0200	0.00500
Antimony, Total	7440-36-0	0.00238	J	0.00500	0.00125
Selenium, Total	7782-49-2	0.0146		0.00500	0.00250
Thallium, Total	7440-28-0		U	0.00100	0.000250

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

8/20/10

Microbac

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-02
Client ID: 47WW13-100804
Matrix: Water
Workgroup Number: WG339267
Collect Date: 08/04/2010 14:15
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 3015
Analytical Method: 6020
Analyst: JYH
Dilution: 5
Units: mg/L

Instrument: ELAN-ICP
Prep Date: 08/09/2010 06:19
Cal Date: 08/10/2010 16:24
Run Date: 08/10/2010 19:52
File ID: EL.081010.195230

Analyte	CAS. Number	Result	Qual	PQL	SDL
Silver, Total	7440-22-4		U	0.00500	0.00125
Arsenic, Total	7440-38-2	0.113		0.00500	0.00125
Barium, Total	7440-39-3	0.119		0.0150	0.00250
Cadmium, Total	7440-43-9		U	0.00250	0.000625
Chromium, Total	7440-47-3	0.0387		0.0100	0.00250
Copper, Total	7440-50-8	0.0178		0.0100	0.00250
Lead, Total	7439-92-1	0.00471		0.00250	0.00125
Manganese, Total	7439-96-5	0.230		0.0100	0.00250
Nickel, Total	7440-02-0	0.0284		0.0200	0.00500
Antimony, Total	7440-36-0	0.00426	J	0.00500	0.00125
Selenium, Total	7782-49-2	0.00340	J	0.00500	0.00250
Thallium, Total	7440-28-0		U	0.00100	0.000250

J The analyte was positively identified, but the quantitation was below the RL
U Not detected at or above adjusted sample detection limit

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-03
Client ID: EQUIPMENT RINSE-100804
Matrix: Water
Workgroup Number: WG339267
Collect Date: 08/04/2010 16:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3015
Analytical Method: 6020
Analyst: JYH
Dilution: 1
Units: mg/L

Instrument: ELAN-ICP
Prep Date: 08/09/2010 06:19
Cal Date: 08/10/2010 16:24
Run Date: 08/10/2010 19:59
File ID: EL.081010.195915

Analyte	CAS. Number	Result	Qual	PQL	SDL
Silver, Total	7440-22-4		U	0.00100	0.000250
Arsenic, Total	7440-38-2		U	0.00100	0.000250
Barium, Total	7440-39-3		U	0.00300	0.000500
Cadmium, Total	7440-43-9		U	0.000500	0.000125
Chromium, Total	7440-47-3	0.00204		0.00200	0.000500
Copper, Total	7440-50-8		U	0.00200	0.000500
Lead, Total	7439-92-1		U	0.000500	0.000250
Manganese, Total	7439-96-5		U	0.00200	0.000500
Nickel, Total	7440-02-0		U	0.00400	0.00100
Antimony, Total	7440-36-0		U	0.00100	0.000250
Selenium, Total	7782-49-2		U	0.00100	0.000500
Thallium, Total	7440-28-0		U	0.000200	0.0000500

U Not detected at or above adjusted sample detection limit

OK All samples RL

00104444

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-04
Client ID: 47WW14-100804
Matrix: Water
Workgroup Number: WG339267
Collect Date: 08/04/2010 15:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 3015
Analytical Method: 6020
Analyst: JYH
Dilution: 5
Units: mg/L

Instrument: ELAN-ICP
Prep Date: 08/09/2010 06:19
Cal Date: 08/10/2010 16:24
Run Date: 08/10/2010 20:06
File ID: EL.081010.200600

Analyte	CAS. Number	Result	Qual	PQL	SDL
Silver, Total	7440-22-4		U	0.00500	0.00125
Arsenic, Total	7440-38-2	0.00215	J	0.00500	0.00125
Barium, Total	7440-39-3	0.0546		0.0150	0.00250
Cadmium, Total	7440-43-9		U	0.00250	0.000625
Chromium, Total	7440-47-3	0.0736		0.0100	0.00250
Copper, Total	7440-50-8	0.00265	J	0.0100	0.00250
Lead, Total	7439-92-1	0.00304		0.00250	0.00125
Manganese, Total	7439-96-5	0.112		0.0100	0.00250
Nickel, Total	7440-02-0	0.0370		0.0200	0.00500
Antimony, Total	7440-36-0		U	0.00500	0.00125
Selenium, Total	7782-49-2	0.00770		0.00500	0.00250
Thallium, Total	7440-28-0		U	0.00100	0.000250

J
J

J The analyte was positively identified, but the quantitation was below the RL
U Not detected at or above adjusted sample detection limit

8/20/10

Microbac

00104445

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-05
Client ID: 47WW14-100804-FD
Matrix: Water
Workgroup Number: WG339267
Collect Date: 08/04/2010 15:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 3015
Analytical Method: 6020
Analyst: JYH
Dilution: 5
Units: mg/L

Instrument: ELAN-ICP
Prep Date: 08/09/2010 06:19
Cal Date: 08/10/2010 16:24
Run Date: 08/10/2010 20:12
File ID: EL.081010.201245

Analyte	CAS. Number	Result	Qual	FQL	SDL
Silver, Total	7440-22-4		U	0.00500	0.00125
Arsenic, Total	7440-38-2	0.00195	J	0.00500	0.00125
Barium, Total	7440-39-3	0.0523		0.0150	0.00250
Cadmium, Total	7440-43-9		U	0.00250	0.000625
Chromium, Total	7440-47-3	0.0562		0.0100	0.00250
Copper, Total	7440-50-8		U	0.0100	0.00250
Lead, Total	7439-92-1		U	0.00250	0.00125
Manganese, Total	7439-96-5	0.0957		0.0100	0.00250
Nickel, Total	7440-02-0	0.0391		0.0200	0.00500
Antimony, Total	7440-36-0		U	0.00500	0.00125
Selenium, Total	7782-49-2	0.00873		0.00500	0.00250
Thallium, Total	7440-28-0		U	0.00100	0.000250

J

J The analyte was positively identified, but the quantitation was below the RL
U Not detected at or above adjusted sample detection limit

8/20/10

Microbac

2.3.2.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080104
Blank File ID: EL.081010.172823
Prep Date: 08/09/10 06:19
Analyzed Date: 08/10/10 17:28
Analyst: JYH

Work Group: WG339267
Blank Sample ID: WG339197-02
Instrument ID: ELAN-ICP
Method: 6020

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
FLT_BLK	WG339197-04	EL.081010.173506	08/10/10 17:35	01
LCS	WG339197-03	EL.081010.174150	08/10/10 17:41	01
47WW30-100804	L10080104-01	EL.081010.194545	08/10/10 19:45	DL01
47WW13-100804	L10080104-02	EL.081010.195230	08/10/10 19:52	DL01
EQUIPMENT RINSE-100804	L10080104-03	EL.081010.195915	08/10/10 19:59	01
47WW14-100804	L10080104-04	EL.081010.200600	08/10/10 20:06	DL01
47WW14-100804-FD	L10080104-05	EL.081010.201245	08/10/10 20:12	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 1749051
Report generated 08/11/2010 09:21

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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/09/10 06:19 Sample ID:WG339197-02
Instrument ID:ELAN-ICP Run Date:08/10/10 17:28 Prep Method:3015
File ID:EL.081010.172823 Analyst:JYH Method:6020
Workgroup (AAB#):WG339267 Matrix:Water Units:mg/L
Contract #:DACA56-94-D-0020 Cal ID:ELAN-I-10-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Silver, Total	0.000250	0.00100	0.000250	1	U
Arsenic, Total	0.000250	0.00100	0.000250	1	U
Barium, Total	0.000500	0.00300	0.000500	1	U
Cadmium, Total	0.000125	0.000500	0.000125	1	U
Chromium, Total	0.000500	0.00200	0.000500	1	U
Copper, Total	0.000500	0.00200	0.000500	1	U
Lead, Total	0.000250	0.000500	0.000250	1	U
Manganese, Total	0.000500	0.00200	0.000500	1	U
Nickel, Total	0.00100	0.00400	0.00100	1	U
Antimony, Total	0.000250	0.00100	0.000250	1	U
Selenium, Total	0.000500	0.00100	0.000500	1	U
Thallium, Total	0.0000500	0.000200	0.0000500	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1749052
11-AUG-2010 09:21

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080104 Run Date: 08/10/2010 Sample ID: WG339197-03
Instrument ID: ELAN-ICP Run Time: 17:41 Prep Method: 3015
File ID: EL.081010.174150 Analyst: JYH Method: 6020
Workgroup (AAB#): WG339267 Matrix: Water Units: mg/L
QC Key: STD Lot#: STD39374 Cal ID: ELAN-I -

Analytes	Expected	Found	% Rec	LCS Limits	Q
Silver, Total	0.0625	0.0575	91.9	80 - 120	
Arsenic, Total	0.0625	0.0602	96.2	80 - 120	
Barium, Total	0.0625	0.0601	96.2	80 - 120	
Cadmium, Total	0.0625	0.0612	97.8	80 - 120	
Chromium, Total	0.0625	0.0652	104	80 - 120	
Copper, Total	0.0625	0.0653	104	80 - 120	
Lead, Total	0.0625	0.0609	97.4	80 - 120	
Manganese, Total	0.0625	0.0652	104	80 - 120	
Nickel, Total	0.0625	0.0640	102	80 - 120	
Antimony, Total	0.0625	0.0597	95.5	80 - 120	
Selenium, Total	0.0625	0.0581	93.0	80 - 120	
Thallium, Total	0.0625	0.0591	94.6	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 1749053
Report generated: 08/11/2010 09:21

Microbac

2.3.3 Metals CVAA Data (Mercury)

2.3.3.1 Summary Data

LABORATORY REPORT

L10080104

08/19/10 15:49

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47WW30-100804	L10080104-01	7470A	1	05-AUG-10
47WW13-100804	L10080104-02	7470A	1	05-AUG-10
EQUIPMENT RINSE-100804	L10080104-03	7470A	1	05-AUG-10
47WW14-100804	L10080104-04	7470A	1	05-AUG-10
47WW14-100804-FD	L10080104-05	7470A	1	05-AUG-10

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-01
Client ID: 47WW30-100804
Matrix: Water
Workgroup Number: WG339128
Collect Date: 08/04/2010 12:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 7470A
Analytical Method: 7470A
Analyst: PDM
Dilution: 1
Units: mg/L

Instrument: HYDRA
Prep Date: 08/06/2010 08:55
Cal Date: 08/09/2010 10:51
Run Date: 08/09/2010 11:15
File ID: HY.080910.111527

Analyte	CAS. Number	Result	Qual	PQL	SDL
Mercury	7439-97-6		U	0.000200	0.000100

U Not detected at or above adjusted sample detection limit

8/19/10

Microbac

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-02
Client ID: 47WW13-100804
Matrix: Water
Workgroup Number: WG339128
Collect Date: 08/04/2010 14:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 7470A
Analytical Method: 7470A
Analyst: PDM
Dilution: 1
Units: mg/L

Instrument: HYDRA
Prep Date: 08/06/2010 08:55
Cal Date: 08/09/2010 10:51
Run Date: 08/09/2010 11:17
File ID: HY.080910.111740

Analyte	CAS. Number	Result	Qual	PQL	SDL
Mercury	7439-97-6		U	0.000200	0.000100

U Not detected at or above adjusted sample detection limit

8/20/10

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-03
Client ID: EQUIPMENT RINSE-100804
Matrix: Water
Workgroup Number: WG339128
Collect Date: 08/04/2010 16:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 7470A
Analytical Method: 7470A
Analyst: PDM
Dilution: 1
Units: mg/L

Instrument: HYDRA
Prep Date: 08/06/2010 08:55
Cal Date: 08/09/2010 10:51
Run Date: 08/09/2010 11:27
File ID: HY.080910.112727

Analyte	CAS. Number	Result	Qual	PQL	SDL
Mercury	7439-97-6		U	0.000200	0.000100

U Not detected at or above adjusted sample detection limit

8/9/10

Microbac

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-04
Client ID: 47WW14-100804
Matrix: Water
Workgroup Number: WG339128
Collect Date: 08/04/2010 15:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 7470A
Analytical Method: 7470A
Analyst: PDM
Dilution: 1
Units: mg/L

Instrument: HYDRA
Prep Date: 08/06/2010 08:55
Cal Date: 08/09/2010 10:51
Run Date: 08/09/2010 11:29
File ID: HY.080910.112915

Analyte	CAS. Number	Result	Qual	PQL	SDL
Mercury	7439-97-6		U	0.000200	0.000100

U Not detected at or above adjusted sample detection limit

L 090610

Microbac

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-05
Client ID: 47WW14-100804-FD
Matrix: Water
Workgroup Number: WG339128
Collect Date: 08/04/2010 15:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 7470A
Analytical Method: 7470A
Analyst: PDM
Dilution: 1
Units: mg/L

Instrument: HYDRA
Prep Date: 08/06/2010 08:55
Cal Date: 08/09/2010 10:51
Run Date: 08/09/2010 11:31
File ID: HY.080910.113101

Analyte	CAS. Number	Result	Qual	PQL	SDL
Mercury	7439-97-6		U	0.000200	0.000100

U Not detected at or above adjusted sample detection limit

5 of 5

2.3.3.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080104
Blank File ID: HY.080910.110156
Prep Date: 08/06/10 08:55
Analyzed Date: 08/09/10 11:01
Analyst: PDM

Work Group: WG339128
Blank Sample ID: WG339085-02
Instrument ID: HYDRA
Method: 7470A

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG339085-03	HY.080910.110348	08/09/10 11:03	01
FLT_BLK	WG339085-04	HY.080910.110937	08/09/10 11:09	01
47WW30-100804	L10080104-01	HY.080910.111527	08/09/10 11:15	01
47WW13-100804	L10080104-02	HY.080910.111740	08/09/10 11:17	01
EQUIPMENT RINSE-100804	L10080104-03	HY.080910.112727	08/09/10 11:27	01
47WW14-100804	L10080104-04	HY.080910.112915	08/09/10 11:29	01
47WW14-100804-FD	L10080104-05	HY.080910.113101	08/09/10 11:31	01

Report Name: BLANK_SUMMARY
PDF File ID: 1747618
Report generated 08/10/2010 09:42

Microbac®

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/06/10 08:55 Sample ID:WG339085-02
Instrument ID:HYDRA Run Date:08/09/10 11:01 Prep Method:7470A
File ID:HY.080910.110156 Analyst:PDM Method:7470A
Workgroup (AAB#):WG339128 Matrix:Water Units:mg/L
Contract #:DACA56-94-D-0020 Cal ID: HYDRA-09-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Mercury	0.000100	0.000200	0.000100	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1747620
10-AUG-2010 09:42

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080104 Run Date: 08/09/2010 Sample ID: WG339085-03
Instrument ID: HYDRA Run Time: 11:03 Prep Method: 7470A
File ID: HY.080910.110348 Analyst: PDM Method: 7470A
Workgroup (AAB#): WG339128 Matrix: Water Units: mg/L
QC Key: STD Lot#: STD40723 Cal ID: HYDRA-09-AUG-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Mercury	0.00400	0.00453	113	85 - 115	

LCS - Modified 03/06/2008
PDF File ID: 1747541
Report generated: 08/10/2010 09:38

2.4.1 Method 9056

2.4.1.1 Summary Data

LABORATORY REPORT

L10080104

08/19/10 15:49

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47WW30-100804	L10080104-01	300.0	20	05-AUG-10
47WW30-100804	L10080104-01	300.0	10	05-AUG-10
47WW13-100804	L10080104-02	300.0	1	05-AUG-10
EQUIPMENT RINSE-100804	L10080104-03	300.0	1	05-AUG-10
47WW14-100804	L10080104-04	300.0	3	05-AUG-10
47WW14-100804	L10080104-04	300.0	10	05-AUG-10
47WW14-100804-FD	L10080104-05	300.0	3	05-AUG-10
47WW14-100804-FD	L10080104-05	300.0	10	05-AUG-10

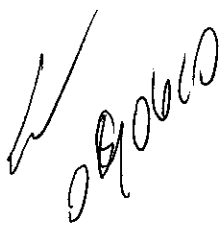
Report Number: **L10080104**
Report Date : **August 19, 2010**

Sample Number: **L10080104-01**
Client ID: **47WW30-100804**
Matrix: **Water**
Workgroup Number: **WG338990**
Collect Date: **08/04/2010 12:40**
Sample Tag: **DL02**

PrePrep Method: **NONE**
Prep Method: **300.0**
Analytical Method: **300.0**
Analyst: **HAV**
Dilution: **20**
Units: **mg/L**

Instrument: **IC2**
Prep Date: **08/05/2010 13:30**
Cal Date: **07/29/2010 13:04**
Run Date: **08/05/2010 20:02**
File ID: **I20805102002.22**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Chloride	16887-00-6	674		4.00	2.00



Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-01
Client ID: 47WW30-100804
Matrix: Water
Workgroup Number: WG338990
Collect Date: 08/04/2010 12:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 300.0
Analytical Method: 300.0
Analyst: HAV
Dilution: 10
Units: mg/L

Instrument: IC2
Prep Date: 08/05/2010 13:30
Cal Date: 07/29/2010 13:04
Run Date: 08/05/2010 19:43
File ID: I20805101943.21

Analyte	CAS. Number	Result	Qual	PQL	SDL
Fluoride	16984-48-8		U	2.00	1.00
Nitrate	14797-55-8		U	6.00	1.00
Nitrite	14797-65-0		U	4.00	1.00
Sulfate	14808-79-8	1540		10.0	5.00

U Not detected at or above adjusted sample detection limit

8/19/2010

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-02
Client ID: 47WWI3-100804
Matrix: Water
Workgroup Number: WG338990
Collect Date: 08/04/2010 14:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 300.0
Analytical Method: 300.0
Analyst: HAV
Dilution: 1
Units: mg/L

Instrument: IC2
Prep Date: 08/05/2010 13:30
Cal Date: 07/29/2010 13:04
Run Date: 08/05/2010 20:20
File ID: I20805102020.23

Analyte	CAS. Number	Result	Qual	PQL	SDL
Chloride	16887-00-6	9.37		0.200	0.100
Fluoride	16984-48-8	0.230		0.200	0.100
Nitrate	14797-55-8	0.119	J	0.600	0.100
Nitrite	14797-65-0		U	0.400	0.100
Sulfate	14808-79-8	35.8		1.00	0.500

J The analyte was positively identified, but the quantitation was below the RL
U Not detected at or above adjusted sample detection limit

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-03
Client ID: EQUIPMENT RINSE-100804
Matrix: Water
Workgroup Number: WG338990
Collect Date: 08/04/2010 16:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 300.0
Analytical Method: 300.0
Analyst: HAV
Dilution: 1
Units: mg/L

Instrument: IC2
Prep Date: 08/05/2010 13:30
Cal Date: 07/29/2010 13:04
Run Date: 08/05/2010 17:16
File ID: I20805101716.13

Analyte	CAS. Number	Result	Qual	PQL	SDL
Chloride	16887-00-6		U	0.200	0.100
Fluoride	16984-48-8		U	0.200	0.100
Nitrate	14797-55-8		U	0.600	0.100
Nitrite	14797-65-0		U	0.400	0.100
Sulfate	14808-79-8		U	1.00	0.500

U Not detected at or above adjusted sample detection limit



00104469

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-04
Client ID: 47WW14-100804
Matrix: Water
Workgroup Number: WG338990
Collect Date: 08/04/2010 15:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 300.0
Analytical Method: 300.0
Analyst: HAV
Dilution: 3
Units: mg/L

Instrument: IC2
Prep Date: 08/05/2010 13:30
Cal Date: 07/29/2010 13:04
Run Date: 08/05/2010 17:34
File ID: I20805101734.14

Analyte	CAS. Number	Result	Qual	PQL	SDL
Fluoride	16984-48-8	0.408	J	0.600	0.300
Nitrate	14797-55-8	0.327	J	1.80	0.300
Nitrite	14797-65-0		U	1.20	0.300
Sulfate	14808-79-8	313		3.00	1.50

J
J

J The analyte was positively identified, but the quantitation was below the RL
U Not detected at or above adjusted sample detection limit

Microbac

Report Number: **L10080104**

Report Date : **August 19, 2010**

Sample Number: **L10080104-04**
Client ID: **47WW14-100804**
Matrix: **Water**
Workgroup Number: **WG338990**
Collect Date: **08/04/2010 15:40**
Sample Tag: **DL02**

PrePrep Method: **NONE**
Prep Method: **300.0**
Analytical Method: **300.0**
Analyst: **HAV**
Dilution: **10**
Units: **mg/L**

Instrument: **IC2**
Prep Date: **08/05/2010 13:30**
Cal Date: **07/29/2010 13:04**
Run Date: **08/05/2010 18:48**
File ID: **I20805101848.18**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Chloride	16887-00-6	322		2.00	1.00

00104471

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-05
Client ID: 47WW14-100804-FD
Matrix: Water
Workgroup Number: WG338990
Collect Date: 08/04/2010 15:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 300.0
Analytical Method: 300.0
Analyst: HAV
Dilution: 3
Units: mg/L

Instrument: IC2
Prep Date: 08/05/2010 13:30
Cal Date: 07/29/2010 13:04
Run Date: 08/05/2010 19:06
File ID: I20805101906.19

Analyte	CAS. Number	Result	Qual	PQL	SDL
Fluoride	16984-48-8	0.420	J	0.600	0.300
Nitrate	14797-55-8		U	1.80	0.300
Nitrite	14797-65-0		U	1.20	0.300
Sulfate	14808-79-8	301		3.00	1.50

J

J The analyte was positively identified, but the quantitation was below the RL
U Not detected at or above adjusted sample detection limit

Microbac

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-05
Client ID: 47WW14-100804-FD
Matrix: Water
Workgroup Number: WG338990
Collect Date: 08/04/2010 15:40
Sample Tag: DL02

PrePrep Method: NONE
Prep Method: 300.0
Analytical Method: 300.0
Analyst: HAV
Dilution: 10
Units: mg/L

Instrument: IC2
Prep Date: 08/05/2010 13:30
Cal Date: 07/29/2010 13:04
Run Date: 08/05/2010 19:25
File ID: I20805101925.20

Analyte	CAS. Number	Result	Qual	PQL	SDL
Chloride	16887-00-6	312		2.00	1.00

Microbac

2.4.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080104
Blank File ID: I20805101448.05
Prep Date: 08/05/10 13:30
Analyzed Date: 08/05/10 14:48
Analyst: HAV

Work Group: WG338990
Blank Sample ID: WG338990-01
Instrument ID: IC2
Method: 300.0

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG338990-02	I20805101507.06	08/05/10 15:07	01
DUP	WG338990-04	I20805101543.08	08/05/10 15:43	01
EQUIPMENT RINSE-100804	L10080104-03	I20805101716.13	08/05/10 17:16	01
47WW14-100804	L10080104-04	I20805101734.14	08/05/10 17:34	DL01
47WW14-100804	L10080104-04	I20805101848.18	08/05/10 18:48	DL02
47WW14-100804-FD	L10080104-05	I20805101906.19	08/05/10 19:06	DL01
47WW14-100804-FD	L10080104-05	I20805101925.20	08/05/10 19:25	DL02
47WW30-100804	L10080104-01	I20805101943.21	08/05/10 19:43	DL01
47WW30-100804	L10080104-01	I20805102002.22	08/05/10 20:02	DL02
47WW13-100804	L10080104-02	I20805102020.23	08/05/10 20:20	01

Report Name: BLANK_SUMMARY
PDF File ID: 1746484
Report generated 08/17/2010 09:12

Microbac

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/05/10 13:30 Sample ID:WG338990-01
Instrument ID:IC2 Run Date:08/05/10 14:48 Prep Method:300.0
File ID:I20805101448.05 Analyst:HAV Method:300.0
Workgroup (AAB#):WG338990 Matrix:Water Units:mg/L
Contract #:DACA56-94-D-0020 Cal ID: IC2-29-JUL-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Chloride	0.100	0.200	0.100	1	U
Fluoride	0.100	0.200	0.100	1	U
Nitrate	0.100	0.600	0.100	1	U
Nitrite	0.100	0.400	0.100	1	U
Sulfate	0.500	1.00	0.500	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1746485
17-AUG-2010 09:12

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080104 Run Date: 08/05/2010 Sample ID: WG338990-02
Instrument ID: IC2 Run Time: 15:07 Prep Method: 300.0
File ID: I20805101507.06 Analyst: HAV Method: 300.0
Workgroup (AAB#): WG338990 Matrix: Water Units: mg/L
QC Key: STD Lot#: STD39765 Cal ID: IC2-29-JUL-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Chloride	8.00	8.07	101	90 - 110	
Fluoride	8.00	7.72	96.5	90 - 110	
Nitrate	5.42	5.49	101	90 - 110	
Nitrite	4.87	4.94	101	90 - 110	
Sulfate	40.0	40.3	101	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 1746486
Report generated: 08/17/2010 09:12

2.4.2 Alkalinity Data

2.4.2.1 Summary Data

LABORATORY REPORT

L10080104

08/19/10 15:49

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47WW30-100804	L10080104-01	310.2	3	05-AUG-10
47WW13-100804	L10080104-02	310.2	1	05-AUG-10
EQUIPMENT RINSE-100804	L10080104-03	310.2	1	05-AUG-10
47WW14-100804	L10080104-04	310.2	2	05-AUG-10
47WW14-100804-FD	L10080104-05	310.2	2	05-AUG-10

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-01
Client ID: 47WW30-100804
Matrix: Water
Workgroup Number: WG339111
Collect Date: 08/04/2010 12:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 310.2
Analytical Method: 310.2
Analyst: DIH
Dilution: 3
Units: mg/L

Instrument: SMARTCHEM
Prep Date: 08/06/2010 11:30
Cal Date: 08/06/2010 11:26
Run Date: 08/06/2010 11:30
File ID: SC100806003.015

Analyte	CAS. Number	Result	Qual	PQL	SDL
Alkalinity, Total (as CaCO3)		613		30.0	15.0

8/20/10

00104481

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-02
Client ID: 47WW13-100804
Matrix: Water
Workgroup Number: WG339067
Collect Date: 08/04/2010 14:15
Sample Tag: 01

PrePrep Method: NONR
Prep Method: 310.2
Analytical Method: 310.2
Analyst: DIH
Dilution: 1
Units: mg/L

Instrument: SMARTCHEM
Prep Date: 08/06/2010 09:37
Cal Date: 08/06/2010 09:27
Run Date: 08/06/2010 09:37
File ID: SC100806001.024

Analyte	CAS. Number	Result	Qual	PQL	SDL
Alkalinity, Total (as CaCO3)		56.5		10.0	5.00

DUP - EB

L090410

Microbac

00104482

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-03
Client ID: EQUIPMENT RINSE-100804
Matrix: Water
Workgroup Number: WG339067
Collect Date: 08/04/2010 16:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 310.2
Analytical Method: 310.2
Analyst: DIH
Dilution: 1
Units: mg/L

Instrument: SMARTCHEM
Prep Date: 08/06/2010 09:37
Cal Date: 08/06/2010 09:27
Run Date: 08/06/2010 09:37
File ID: SC100806001.025

Analyte	CAS. Number	Result	Qual	PQL	SDL
Alkalinity, Total (as CaCO3)		23.1		10.0	5.00

5x3
115.5
quality
EB

090610

Microbac

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-04
Client ID: 47WW14-100804
Matrix: Water
Workgroup Number: WG339111
Collect Date: 08/04/2010 15:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 310.2
Analytical Method: 310.2
Analyst: DIH
Dilution: 2
Units: mg/L

Instrument: SMARTCHEM
Prep Date: 08/06/2010 11:31
Cal Date: 08/06/2010 11:26
Run Date: 08/06/2010 11:31
File ID: SC100806003.016

Analyte	CAS. Number	Result	Qual	PQL	SDL
Alkalinity, Total (as CaCO3)		322		20.0	10.0

8/20/10

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-05
Client ID: 47WW14-100804-FD
Matrix: Water
Workgroup Number: WG339111
Collect Date: 08/04/2010 15:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 310.2
Analytical Method: 310.2
Analyst: DIH
Dilution: 2
Units: mg/L

Instrument: SMARTCHEM
Prep Date: 08/06/2010 11:31
Cal Date: 08/06/2010 11:26
Run Date: 08/06/2010 11:31
File ID: SC100806003.017

Analyte	CAS. Number	Result	Qual	PQL	SDL
Alkalinity, Total (as CaCO3)		307		20.0	10.0

2.4.2.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080104
Blank File ID: SC100806001.010
Prep Date: 08/06/10 09:29
Analyzed Date: 08/06/10 09:29
Analyst: DIH

Work Group: WG339067
Blank Sample ID: WG339067-01
Instrument ID: SMARTCHEM
Method: 310.2

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG339067-02	SC100806001.011	08/06/10 09:29	01
LCS2	WG339067-03	SC100806001.012	08/06/10 09:30	01
47WW13-100804	L10080104-02	SC100806001.024	08/06/10 09:37	01
EQUIPMENT RINSE-100804	L10080104-03	SC100806001.025	08/06/10 09:37	01
DUP	WG339067-05	SC100806001.035	08/06/10 09:43	01

Report Name: BLANK_SUMMARY
PDF File ID: 1746727
Report generated 08/09/2010 13:36

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080104
Blank File ID: SC100806003.010
Prep Date: 08/06/10 11:27
Analyzed Date: 08/06/10 11:27
Analyst: DIH

Work Group: WG339111
Blank Sample ID: WG339111-01
Instrument ID: SMARTCHEM
Method: 310.2

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG339111-02	SC100806003.011	08/06/10 11:28	01
LCS2	WG339111-03	SC100806003.012	08/06/10 11:28	01
47WW30-100804	L10080104-01	SC100806003.015	08/06/10 11:30	DL01
47WW14-100804	L10080104-04	SC100806003.016	08/06/10 11:31	DL01
47WW14-100804-FD	L10080104-05	SC100806003.017	08/06/10 11:31	DL01
DUP	WG339111-05	SC100806003.018	08/06/10 11:32	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 1746727
Report generated 08/09/2010 13:36

Microbac®

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/06/10 09:29 Sample ID:WG339067-01
Instrument ID:SMARTCHEM Run Date:08/06/10 09:29 Prep Method:310.2
File ID:SC100806001.010 Analyst:DIH Method:310.2
Workgroup (AAB#):WG339067 Matrix:Water Units:mg/L
Contract #:DACA56-94-D-0020 Cal ID:SMARTC-06-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Alkalinity, Total (as CaCO3)	5.00	10.0	5.00	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1746730
09-AUG-2010 13:36

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/06/10 11:27 Sample ID:WG339111-01
Instrument ID:SMARTCHEM Run Date:08/06/10 11:27 Prep Method:310.2
File ID:SC100806003.010 Analyst:DIH Method:310.2
Workgroup (AAB#):WG339111 Matrix:Water Units:mg/L
Contract #:DACA56-94-D-0020 Cal ID:SMARTC-06-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Alkalinity, Total (as CaCO3)	5.00	10.0	5.00	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1746730
09-AUG-2010 13:36

Microbac Laboratories Inc.

LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080104 Analyst:DIH Prep Method:310.2

Instrument ID:SMARTCHEM Matrix:Water Method:310.2

Workgroup (AAB#):WG339111 Units:mg/L

QC Key:STD Lot #:STD40242

Sample ID:WG339111-02 LCS File ID:SC100806003.011 Run Date:08/06/2010 11:28

Sample ID:WG339111-03 LCS2 File ID:SC100806003.012 Run Date:08/06/2010 11:28

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Alkalinity, Total (as CaCO3)	200	199	99.7	200	194	96.9	2.84	85 - 115	25	

LCS_LCS2 - Modified 03/06/2008

PDF File ID:1746733

Report generated: 08/09/2010 13:36

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080104 Analyst: DIH Prep Method: 310.2
Instrument ID: SMARTCHEM Matrix: Water Method: 310.2
Workgroup (AAB#): WG339067 Units: mg/L
QC Key: STD Lot #: STD40242
Sample ID: WG339067-02 LCS File ID: SC100806001.011 Run Date: 08/06/2010 09:29
Sample ID: WG339067-03 LCS2 File ID: SC100806001.012 Run Date: 08/06/2010 09:30

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Alkalinity, Total (as CaCO3)	200	203	102	200	212	106	4.11	85 - 115	25	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1746733
Report generated: 08/09/2010 13:36

2.4.3 Total Organic Carbon Data

2.4.3.1 Summary Data

LABORATORY REPORT

L10080104

08/19/10 15:49

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47WW30-100804	L10080104-01	415.1	4	05-AUG-10
47WW13-100804	L10080104-02	415.1	2	05-AUG-10
EQUIPMENT RINSE-100804	L10080104-03	415.1	1	05-AUG-10
47WW14-100804	L10080104-04	415.1	2	05-AUG-10
47WW14-100804-FD	L10080104-05	415.1	2	05-AUG-10

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-01
Client ID: 47WW30-100804
Matrix: Water
Workgroup Number: WG339297
Collect Date: 08/04/2010 12:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 415.1
Analytical Method: 415.1
Analyst: DIH
Dilution: 4
Units: mg/L

Instrument: TOC-VWP
Prep Date: 08/11/2010 10:28
Cal Date: 06/08/2010 10:31
Run Date: 08/11/2010 10:28
File ID: TC08112010.007

Analyte	CAS. Number	Result	Qual	PQL	SDL
Total Organic Carbon		20.3		4.00	2.00

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-02
Client ID: 47WW13-100804
Matrix: Water
Workgroup Number: WG338950
Collect Date: 08/04/2010 14:15
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 415.1
Analytical Method: 415.1
Analyst: JBK
Dilution: 2
Units: mg/L

Instrument: TOC-VWP
Prep Date: 08/06/2010 16:53
Cal Date: 06/08/2010 10:31
Run Date: 08/06/2010 16:53
File ID: TC08062010.025

Analyte	CAS. Number	Result	Qual	PQL	SDL
Total Organic Carbon		11.9		2.00	1.00

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Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-03
Client ID: EQUIPMENT RINSE-100804
Matrix: Water
Workgroup Number: WG338950
Collect Date: 08/04/2010 16:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 415.1
Analytical Method: 415.1
Analyst: JBK
Dilution: 1
Units: mg/L

Instrument: TOC-VWP
Prep Date: 08/06/2010 17:05
Cal Date: 08/06/2010 10:31
Run Date: 08/06/2010 17:05
File ID: TC08062010.026

Analyte	CAS. Number	Result	Qual	PQL	SDL
Total Organic Carbon			U	1.00	0.500

U Not detected at or above adjusted sample detection limit

Microbac

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-04
Client ID: 47WW14-100804
Matrix: Water
Workgroup Number: WG338950
Collect Date: 08/04/2010 15:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 415.1
Analytical Method: 415.1
Analyst: JBK
Dilution: 2
Units: mg/L

Instrument: TOC-VWP
Prep Date: 08/06/2010 17:38
Cal Date: 06/08/2010 10:31
Run Date: 08/06/2010 17:38
File ID: TC08062010.029

Analyte	CAS. Number	Result	Qual	PQL	SDL
Total Organic Carbon		8.94		2.00	1.00

Report Number: L10080104
Report Date : August 19, 2010

Sample Number: L10080104-05
Client ID: 47WW14-100804-FD
Matrix: Water
Workgroup Number: WG338950
Collect Date: 08/04/2010 15:40
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 415.1
Analytical Method: 415.1
Analyst: JBK
Dilution: 2
Units: mg/L

Instrument: TOC-VWP
Prep Date: 08/06/2010 17:52
Cal Date: 06/08/2010 10:31
Run Date: 08/06/2010 17:52
File ID: TC08062010.030

Analyte	CAS. Number	Result	Qual	PQL	SDL
Total Organic Carbon		9.84		2.00	1.00

2.4.3.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080104
Blank File ID: TC08062010.004
Prep Date: 08/06/10 12:18
Analyzed Date: 08/06/10 12:18
Analyst: JBK

Work Group: WG338950
Blank Sample ID: WG338950-01
Instrument ID: TOC-VWP
Method: 415.1

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG338950-02	TC08062010.005	08/06/10 12:31	01
LCS2	WG338950-03	TC08062010.006	08/06/10 12:43	01
47WW13-100804	L10080104-02	TC08062010.025	08/06/10 16:53	DL01
EQUIPMENT RINSE-100804	L10080104-03	TC08062010.026	08/06/10 17:05	01
47WW14-100804	L10080104-04	TC08062010.029	08/06/10 17:38	DL01
47WW14-100804-FD	L10080104-05	TC08062010.030	08/06/10 17:52	DL01
DUP	WG338950-05	TC08062010.031	08/06/10 18:04	01

Report Name: BLANK_SUMMARY
PDF File ID: 1746959
Report generated 08/12/2010 11:38

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Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080104
Blank File ID: TC08112010.004
Prep Date: 08/11/10 09:52
Analyzed Date: 08/11/10 09:52
Analyst: DIH

Work Group: WG339297
Blank Sample ID: WG339297-01
Instrument ID: TOC-VWP
Method: 415.1

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG339297-02	TC08112010.005	08/11/10 10:03	01
LCS2	WG339297-03	TC08112010.006	08/11/10 10:15	01
47WW30-100804	L10080104-01	TC08112010.007	08/11/10 10:28	DL01
DUP	WG339297-05	TC08112010.018	08/11/10 13:32	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 1746959
Report generated 08/12/2010 11:38

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/06/10 12:18 Sample ID:WG338950-01
Instrument ID:TOC-VWP Run Date:08/06/10 12:18 Prep Method:415.1
File ID:TC08062010.004 Analyst:JBK Method:415.1
Workgroup (AAB#):WG338950 Matrix:Water Units:mg/L
Contract #:DACA56-94-D-0020 Cal ID:TOC-VW-08-JUN-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Total Organic Carbon	0.500	1.00	0.500	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1746960
12-AUG-2010 11:38

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080104 Prep Date:08/11/10 09:52 Sample ID:WG339297-01
Instrument ID:TOC-VWP Run Date:08/11/10 09:52 Prep Method:415.1
File ID:TC08112010.004 Analyst:DIH Method:415.1
Workgroup (AAB#):WG339297 Matrix:Water Units:mg/L
Contract #:DACA56-94-D-0020 Cal ID:TOC-VW-08-JUN-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Total Organic Carbon	0.500	1.00	0.500	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1746960
12-AUG-2010 11:38

Microbac Laboratories Inc.

LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080104 Analyst: JBK Prep Method: 415.1

Instrument ID: TOC-VWP Matrix: Water Method: 415.1

Workgroup (AAB#): WG338950 Units: mg/L

QC Key: STD Lot #: STD39538

Sample ID: WG338950-02 LCS File ID: TC08062010.005 Run Date: 08/06/2010 12:31

Sample ID: WG338950-03 LCS2 File ID: TC08062010.006 Run Date: 08/06/2010 12:43

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Organic Carbon	25.0	28.7	115	25.0	26.5	106	7.76	85 - 115	15	

LCS_LCS2 - Modified 03/06/2008

PDF File ID: 1746961

Report generated: 08/12/2010 11:38

Microbac

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080104 Analyst: DIH Prep Method: 415.1
Instrument ID: TOC-VWP Matrix: Water Method: 415.1
Workgroup (AAB#): WG339297 Units: mg/L
QC Key: STD Lot #: STD39538
Sample ID: WG339297-02 LCS File ID: TC08112010.005 Run Date: 08/11/2010 10:03
Sample ID: WG339297-03 LCS2 File ID: TC08112010.006 Run Date: 08/11/2010 10:15

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Organic Carbon	25.0	23.6	94.3	25.0	26.7	107	12.4	85 - 115	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1746961
Report generated: 08/12/2010 11:38

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47WW04-100806	SW6850	NONE	N	0	1	PERCHLORATE	0.100	ug/L	U	N	Y		U						L10080224-02	15:40
	SW8260B	SW5030	N	0	1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080224-02	18:42
						1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080224-02	18:42
						1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N	Y		U						L10080224-02	18:42
						1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080224-02	18:42
						1,1-DICHLOROETHANE	0.125	ug/L	U	N	Y		U						L10080224-02	18:42
						1,1-DICHLOROETHENE	0.500	ug/L	U	N	Y		U						L10080224-02	18:42
						1,1-DICHLOROPROPENE	0.250	ug/L	U	N	Y		U						L10080224-02	18:42
						1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N	Y		U						L10080224-02	18:42
						1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N	Y		U						L10080224-02	18:42
						1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N	Y		U						L10080224-02	18:42
						1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N	Y		U						L10080224-02	18:42
						1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N	Y		U						L10080224-02	18:42
						1,2-DIBROMOETHANE	0.250	ug/L	U	N	Y		U						L10080224-02	18:42
						1,2-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080224-02	18:42
						1,2-DICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080224-02	18:42
						1,2-DICHLOROPROPANE	0.200	ug/L	U	N	Y		U						L10080224-02	18:42
						1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N	Y		U						L10080224-02	18:42
						1,3-DICHLOROBENZENE	0.250	ug/L	U	N	Y		U						L10080224-02	18:42
						1,3-DICHLOROPROPANE	0.200	ug/L	U	N	Y		U						L10080224-02	18:42
						1,4-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080224-02	18:42
						2,2-DICHLOROPROPANE	0.250	ug/L	U	N	Y		U						L10080224-02	18:42
						2-BUTANONE	2.50	ug/L	U	N	Y		U						L10080224-02	18:42
						2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N	Y		U						L10080224-02	18:42
						2-CHLOROTOLUENE	0.125	ug/L	U	N	Y		U						L10080224-02	18:42
						2-HEXANONE	2.50	ug/L	U	N	Y		U						L10080224-02	18:42
						4-CHLOROTOLUENE	0.250	ug/L	U	N	Y		U						L10080224-02	18:42
						4-METHYL-2-PENTANONE	2.50	ug/L	U	N	Y		U						L10080224-02	18:42
						ACETONE	2.50	ug/L	U	N	Y		U						L10080224-02	18:42
						BENZENE	0.125	ug/L	U	N	Y		U						L10080224-02	18:42
						BROMOBENZENE	0.125	ug/L	U	N	Y		U						L10080224-02	18:42
						BROMOCHLOROMETHANE	0.200	ug/L	U	N	Y		U						L10080224-02	18:42
						BROMODICHLOROMETHANE	0.250	ug/L	U	N	Y		U						L10080224-02	18:42
						BROMOFORM	0.500	ug/L	U	N	Y		U						L10080224-02	18:42
						BROMOMETHANE	0.500	ug/L	U	N	Y		U						L10080224-02	18:42
						CARBON DISULFIDE	0.500	ug/L	U	N	Y		U						L10080224-02	18:42
						CARBON TETRACHLORIDE	0.250	ug/L	U	N	Y		U						L10080224-02	18:42
						CHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080224-02	18:42
						CHLORODIBROMOMETHANE	0.250	ug/L	U	N	Y		U						L10080224-02	18:42
						CHLOROETHANE	0.500	ug/L	U	N	Y		U						L10080224-02	18:42
						CHLOROFORM	0.125	ug/L	U	N	Y		U						L10080224-02	18:42
						CHLOROMETHANE	0.500	ug/L	U	N	Y		U						L10080224-02	18:42
						CIS-1,2-DICHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080224-02	18:42

LHAAP-47
GW
08/06/10
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Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47WW04-100806	SW8260B	SW5030	N 0 1	CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				DIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				ETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				HEXACHLOROBUTADIENE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				ISOPROPYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				M-,P-XYLENE	0.500	ug/L	U	N Y	U			L10080224-02	18:42
				METHYLENE CHLORIDE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				N-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				N-PROPYLBENZENE	0.125	ug/L	U	N Y	U			L10080224-02	18:42
				NAPHTHALENE	0.200	ug/L	U	N Y	U			L10080224-02	18:42
				O-XYLENE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				P-ISOPROPYLTOLUENE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				SEC-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				STYRENE	0.125	ug/L	U	N Y	U			L10080224-02	18:42
				TERT-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				TETRACHLOROETHENE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				TOLUENE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				TRANS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N Y	U			L10080224-02	18:42
				TRICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
				VINYL ACETATE	2.50	ug/L	U	N Y	U			L10080224-02	18:42
				VINYL CHLORIDE	0.250	ug/L	U	N Y	U			L10080224-02	18:42
47WW23-100806	SW6850	NONE	N 0 1	PERCHLORATE	0.100	ug/L	U	N Y	U			L10080224-04	16:03
	SW8260B	SW5030	N 0 1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N Y	U			L10080224-04	19:13
				1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080224-04	19:13
				1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N Y	U			L10080224-04	19:13
				1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080224-04	19:13
				1,1-DICHLOROETHANE	0.125	ug/L	U	N Y	U			L10080224-04	19:13
				1,1-DICHLOROETHENE	0.500	ug/L	U	N Y	U			L10080224-04	19:13
				1,1-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080224-04	19:13
				1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N Y	U			L10080224-04	19:13
				1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N Y	U			L10080224-04	19:13
				1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N Y	U			L10080224-04	19:13
				1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-04	19:13
				1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N Y	U			L10080224-04	19:13
				1,2-DIBROMOETHANE	0.250	ug/L	U	N Y	U			L10080224-04	19:13
				1,2-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080224-04	19:13
				1,2-DICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080224-04	19:13
				1,2-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080224-04	19:13
				1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-04	19:13
				1,3-DICHLOROBENZENE	0.250	ug/L	U	N Y	U			L10080224-04	19:13

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47WW23-100806	SW8260B	SW5030	N	0	1	1,3-DICHLOROPROPANE	0.200	ug/L	U	N	Y		U						L10080224-04	19:13
						1,4-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080224-04	19:13
						2,2-DICHLOROPROPANE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						2-BUTANONE	2.50	ug/L	U	N	Y		U						L10080224-04	19:13
						2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N	Y		U						L10080224-04	19:13
						2-CHLOROTOLUENE	0.125	ug/L	U	N	Y		U						L10080224-04	19:13
						2-HEXANONE	2.50	ug/L	U	N	Y		U						L10080224-04	19:13
						4-CHLOROTOLUENE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						4-METHYL-2-PENTANONE	2.50	ug/L	U	N	Y		U						L10080224-04	19:13
						ACETONE	2.50	ug/L	U	N	Y		U						L10080224-04	19:13
						BENZENE	0.125	ug/L	U	N	Y		U						L10080224-04	19:13
						BROMOBENZENE	0.125	ug/L	U	N	Y		U						L10080224-04	19:13
						BROMOCHLOROMETHANE	0.200	ug/L	U	N	Y		U						L10080224-04	19:13
						BROMODICHLOROMETHANE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						BROMOFORM	0.500	ug/L	U	N	Y		U						L10080224-04	19:13
						BROMOMETHANE	0.500	ug/L	U	N	Y		U						L10080224-04	19:13
						CARBON DISULFIDE	0.500	ug/L	U	N	Y		U						L10080224-04	19:13
						CARBON TETRACHLORIDE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						CHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080224-04	19:13
						CHLORODIBROMOMETHANE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						CHLOROETHANE	0.500	ug/L	U	N	Y		U						L10080224-04	19:13
						CHLOROFORM	0.125	ug/L	U	N	Y		U						L10080224-04	19:13
						CHLOROMETHANE	0.571	ug/L	J	Y	Y		J						L10080224-04	19:13
						CIS-1,2-DICHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						DIBROMOMETHANE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						ETHYLBENZENE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						HEXACHLOROBUTADIENE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						ISOPROPYLBENZENE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						M-,P-XYLENE	0.500	ug/L	U	N	Y		U						L10080224-04	19:13
						METHYLENE CHLORIDE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						N-BUTYLBENZENE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						N-PROPYLBENZENE	0.125	ug/L	U	N	Y		U						L10080224-04	19:13
						NAPHTHALENE	0.200	ug/L	U	N	Y		U						L10080224-04	19:13
						O-XYLENE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						P-ISOPROPYLTOLUENE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						SEC-BUTYLBENZENE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						STYRENE	0.125	ug/L	U	N	Y		U						L10080224-04	19:13
						TERT-BUTYLBENZENE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						TETRACHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						TOLUENE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						TRANS-1,2-DICHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N	Y		U						L10080224-04	19:13

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47WW23-100806	SW8260B	SW5030	N	0	1	TRICHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
						VINYL ACETATE	2.50	ug/L	U	N	Y		U						L10080224-04	19:13
						VINYL CHLORIDE	0.250	ug/L	U	N	Y		U						L10080224-04	19:13
48WW01-100807	SW8260B	SW5030	N	0	1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080224-07	13:49
						1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080224-07	13:49
						1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N	Y		U						L10080224-07	13:49
						1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080224-07	13:49
						1,1-DICHLOROETHANE	0.125	ug/L	U	N	Y		U						L10080224-07	13:49
						1,1-DICHLOROETHENE	0.500	ug/L	U	N	Y		U						L10080224-07	13:49
						1,1-DICHLOROPROPENE	0.250	ug/L	U	N	Y		U						L10080224-07	13:49
						1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N	Y		U						L10080224-07	13:49
						1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N	Y		U						L10080224-07	13:49
						1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N	Y		U						L10080224-07	13:49
						1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N	Y		U						L10080224-07	13:49
						1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N	Y		U						L10080224-07	13:49
						1,2-DIBROMOETHANE	0.250	ug/L	U	N	Y		U						L10080224-07	13:49
						1,2-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080224-07	13:49
						1,2-DICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080224-07	13:49
						1,2-DICHLOROPROPANE	0.200	ug/L	U	N	Y		U						L10080224-07	13:49
						1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N	Y		U						L10080224-07	13:49
						1,3-DICHLOROBENZENE	0.250	ug/L	U	N	Y		U						L10080224-07	13:49
						1,3-DICHLOROPROPANE	0.200	ug/L	U	N	Y		U						L10080224-07	13:49
						1,4-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080224-07	13:49
						2,2-DICHLOROPROPANE	0.250	ug/L	U	N	Y		U						L10080224-07	13:49
						2-BUTANONE	2.50	ug/L	U	N	Y		U						L10080224-07	13:49
						2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N	Y		U						L10080224-07	13:49
						2-CHLOROTOLUENE	0.125	ug/L	U	N	Y		U						L10080224-07	13:49
						2-HEXANONE	2.50	ug/L	U	N	Y		U						L10080224-07	13:49
						4-CHLOROTOLUENE	0.250	ug/L	U	N	Y		U						L10080224-07	13:49
						4-METHYL-2-PENTANONE	2.50	ug/L	U	N	Y		U						L10080224-07	13:49
						ACETONE	2.50	ug/L	U	N	Y		U						L10080224-07	13:49
						BENZENE	0.125	ug/L	U	N	Y		U						L10080224-07	13:49
						BROMOBENZENE	0.125	ug/L	U	N	Y		U						L10080224-07	13:49
						BROMOCHLOROMETHANE	0.200	ug/L	U	N	Y		U						L10080224-07	13:49
						BROMODICHLOROMETHANE	0.250	ug/L	U	N	Y		U						L10080224-07	13:49
						BROMOFORM	0.500	ug/L	U	N	Y		U						L10080224-07	13:49
						BROMOMETHANE	0.500	ug/L	U	N	Y		U						L10080224-07	13:49
						CARBON DISULFIDE	0.500	ug/L	U	N	Y		U						L10080224-07	13:49
						CARBON TETRACHLORIDE	0.250	ug/L	U	N	Y		U						L10080224-07	13:49
						CHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080224-07	13:49
						CHLORODIBROMOMETHANE	0.250	ug/L	U	N	Y		U						L10080224-07	13:49
						CHLOROETHANE	0.500	ug/L	U	N	Y		U						L10080224-07	13:49

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
48WW01-100807	SW8260B	SW5030	N 0 1	CHLOROFORM	0.125	ug/L	U	N Y	U			L10080224-07	13:49
				CHLOROMETHANE	0.500	ug/L	U	N Y	U			L10080224-07	13:49
				CIS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				DIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				ETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				HEXACHLOROBUTADIENE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				ISOPROPYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				M-,P-XYLENE	0.500	ug/L	U	N Y	U			L10080224-07	13:49
				METHYLENE CHLORIDE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				N-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				N-PROPYLBENZENE	0.125	ug/L	U	N Y	U			L10080224-07	13:49
				NAPHTHALENE	0.200	ug/L	U	N Y	U			L10080224-07	13:49
				O-XYLENE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				P-ISOPROPYLTOLUENE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				SEC-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				STYRENE	0.125	ug/L	U	N Y	U			L10080224-07	13:49
				TERT-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				TETRACHLOROETHENE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				TOLUENE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				TRANS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N Y	U			L10080224-07	13:49
				TRICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
				VINYL ACETATE	2.50	ug/L	U	N Y	U			L10080224-07	13:49
				VINYL CHLORIDE	0.250	ug/L	U	N Y	U			L10080224-07	13:49
67WW06-100806	SW6850	NONE	N 0 1	PERCHLORATE	0.100	ug/L	U	N Y	U			L10080224-05	16:26
	SW8260B	SW5030	N 0 1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N Y	U			L10080224-05	13:18
				1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				1,1-DICHLOROETHANE	0.177	ug/L	J	Y Y	J			L10080224-05	13:18
				1,1-DICHLOROETHENE	0.500	ug/L	U	N Y	U			L10080224-05	13:18
				1,1-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N Y	U			L10080224-05	13:18
				1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N Y	U			L10080224-05	13:18
				1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N Y	U			L10080224-05	13:18
				1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N Y	U			L10080224-05	13:18
				1,2-DIBROMOETHANE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				1,2-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080224-05	13:18
				1,2-DICHLOROETHANE	2.39	ug/L		Y Y				L10080224-05	13:18

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
67WW06-100806	SW8260B	SW5030	N 0 1	1,2-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080224-05	13:18
				1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				1,3-DICHLOROBENZENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				1,3-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080224-05	13:18
				1,4-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080224-05	13:18
				2,2-DICHLOROPROPANE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				2-BUTANONE	2.50	ug/L	U	N Y	U			L10080224-05	13:18
				2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N Y	U			L10080224-05	13:18
				2-CHLOROTOLUENE	0.125	ug/L	U	N Y	U			L10080224-05	13:18
				2-HEXANONE	2.50	ug/L	U	N Y	U			L10080224-05	13:18
				4-CHLOROTOLUENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				4-METHYL-2-PENTANONE	2.50	ug/L	U	N Y	U			L10080224-05	13:18
				ACETONE	2.50	ug/L	U	N Y	U			L10080224-05	13:18
				BENZENE	0.125	ug/L	U	N Y	U			L10080224-05	13:18
				BROMOBENZENE	0.125	ug/L	U	N Y	U			L10080224-05	13:18
				BROMOCHLOROMETHANE	0.200	ug/L	U	N Y	U			L10080224-05	13:18
				BROMODICHLOROMETHANE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				BROMOFORM	0.500	ug/L	U	N Y	U			L10080224-05	13:18
				BROMOMETHANE	0.500	ug/L	U	N Y	U			L10080224-05	13:18
				CARBON DISULFIDE	0.500	ug/L	U	N Y	U			L10080224-05	13:18
				CARBON TETRACHLORIDE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				CHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080224-05	13:18
				CHLORODIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				CHLOROETHANE	0.500	ug/L	U	N Y	U			L10080224-05	13:18
				CHLOROFORM	0.125	ug/L	U	N Y	U			L10080224-05	13:18
				CHLOROMETHANE	0.500	ug/L	U	N Y	U			L10080224-05	13:18
				CIS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				DIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				ETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				HEXACHLOROBUTADIENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				ISOPROPYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				M-,P-XYLENE	0.500	ug/L	U	N Y	U			L10080224-05	13:18
				METHYLENE CHLORIDE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				N-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				N-PROPYLBENZENE	0.125	ug/L	U	N Y	U			L10080224-05	13:18
				NAPHTHALENE	0.200	ug/L	U	N Y	U			L10080224-05	13:18
				O-XYLENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				P-ISOPROPYLTOLUENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				SEC-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				STYRENE	0.125	ug/L	U	N Y	U			L10080224-05	13:18
				TERT-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				TETRACHLOROETHENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
67WW06-100806	SW8260B	SW5030	N 0 1	TOLUENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				TRANS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N Y	U			L10080224-05	13:18
				TRICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
				VINYL ACETATE	2.50	ug/L	U	N Y	U			L10080224-05	13:18
				VINYL CHLORIDE	0.250	ug/L	U	N Y	U			L10080224-05	13:18
LHSMW54-100806	SW6850	NONE	N 0 1	PERCHLORATE	0.100	ug/L	U	N Y	U			L10080224-01	15:16
	SW8260B	SW5030	N 0 2.5	1,1,1,2-TETRACHLOROETHANE	0.625	ug/L	U	N Y	U			L10080224-01	14:21
				1,1,1-TRICHLOROETHANE	0.625	ug/L	U	N Y	U			L10080224-01	14:21
				1,1,2,2-TETRACHLOROETHANE	0.500	ug/L	U	N Y	U			L10080224-01	14:21
				1,1,2-TRICHLOROETHANE	0.625	ug/L	U	N Y	U			L10080224-01	14:21
				1,1-DICHLOROETHANE	0.313	ug/L	U	N Y	U			L10080224-01	14:21
				1,1-DICHLOROETHENE	1.25	ug/L	U	N Y	U			L10080224-01	14:21
				1,1-DICHLOROPROPENE	0.625	ug/L	U	N Y	U			L10080224-01	14:21
				1,2,3-TRICHLOROBENZENE	0.375	ug/L	U	N Y	U			L10080224-01	14:21
				1,2,3-TRICHLOROPROPANE	1.25	ug/L	U	N Y	U			L10080224-01	14:21
				1,2,4-TRICHLOROBENZENE	0.500	ug/L	U	N Y	U			L10080224-01	14:21
				1,2,4-TRIMETHYLBENZENE	0.625	ug/L	U	N Y	U			L10080224-01	14:21
				1,2-DIBROMO-3-CHLOROPROPANE	2.50	ug/L	U	N Y	U			L10080224-01	14:21
				1,2-DIBROMOETHANE	0.625	ug/L	U	N Y	U			L10080224-01	14:21
				1,2-DICHLOROBENZENE	0.313	ug/L	U	N Y	U			L10080224-01	14:21
				1,2-DICHLOROETHANE	0.625	ug/L	U	N Y	U			L10080224-01	14:21
				1,2-DICHLOROPROPANE	0.500	ug/L	U	N Y	U			L10080224-01	14:21
				1,3,5-TRIMETHYLBENZENE	0.625	ug/L	U	N Y	U			L10080224-01	14:21
				1,3-DICHLOROBENZENE	0.625	ug/L	U	N Y	U			L10080224-01	14:21
				1,3-DICHLOROPROPANE	0.500	ug/L	U	N Y	U			L10080224-01	14:21
				1,4-DICHLOROBENZENE	0.313	ug/L	U	N Y	U			L10080224-01	14:21
				2,2-DICHLOROPROPANE	0.625	ug/L	U	N Y	U			L10080224-01	14:21
				2-BUTANONE	6.25	ug/L	U	N Y	U			L10080224-01	14:21
				2-CHLOROETHYL VINYL ETHER	5.00	ug/L	U	N Y	U			L10080224-01	14:21
				2-CHLOROTOLUENE	0.313	ug/L	U	N Y	U			L10080224-01	14:21
				2-HEXANONE	6.25	ug/L	U	N Y	U			L10080224-01	14:21
				4-CHLOROTOLUENE	0.625	ug/L	U	N Y	U			L10080224-01	14:21
				4-METHYL-2-PENTANONE	6.25	ug/L	U	N Y	U			L10080224-01	14:21
				ACETONE	6.25	ug/L	U	N Y	U			L10080224-01	14:21
				BENZENE	0.313	ug/L	U	N Y	U			L10080224-01	14:21
				BROMOBENZENE	0.313	ug/L	U	N Y	U			L10080224-01	14:21
				BROMOCHLOROMETHANE	0.500	ug/L	U	N Y	U			L10080224-01	14:21
				BROMODICHLOROMETHANE	0.625	ug/L	U	N Y	U			L10080224-01	14:21
				BROMOFORM	1.25	ug/L	U	N Y	U			L10080224-01	14:21
				BROMOMETHANE	1.25	ug/L	U	N Y	U			L10080224-01	14:21
				CARBON DISULFIDE	1.25	ug/L	U	N Y	U			L10080224-01	14:21

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
LHSMW54-100806	SW8260B	SW5030	N	0	2.5	CARBON TETRACHLORIDE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						CHLOROBENZENE	0.313	ug/L	U	N	Y		U						L10080224-01	14:21
						CHLORODIBROMOMETHANE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						CHLOROETHANE	1.25	ug/L	U	N	Y		U						L10080224-01	14:21
						CHLOROFORM	0.313	ug/L	U	N	Y		U						L10080224-01	14:21
						CHLOROMETHANE	1.25	ug/L	U	N	Y		U						L10080224-01	14:21
						CIS-1,2-DICHLOROETHENE	0.657	ug/L	J	Y	Y		J						L10080224-01	14:21
						CIS-1,3-DICHLOROPROPENE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						DIBROMOMETHANE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						DICHLORODIFLUOROMETHANE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						ETHYLBENZENE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						HEXACHLOROBUTADIENE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						ISOPROPYLBENZENE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						M-,P-XYLENE	1.25	ug/L	U	N	Y		U						L10080224-01	14:21
						METHYLENE CHLORIDE	0.876	ug/L	J	Y	Y		U-EB		✓				L10080224-01	14:21
						N-BUTYLBENZENE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						N-PROPYLBENZENE	0.313	ug/L	U	N	Y		U						L10080224-01	14:21
						NAPHTHALENE	0.500	ug/L	U	N	Y		U						L10080224-01	14:21
						O-XYLENE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						P-ISOPROPYLTOLUENE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						SEC-BUTYLBENZENE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						STYRENE	0.313	ug/L	U	N	Y		U						L10080224-01	14:21
						TERT-BUTYLBENZENE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						TETRACHLOROETHENE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						TOLUENE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						TRANS-1,2-DICHLOROETHENE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						TRANS-1,3-DICHLOROPROPENE	1.25	ug/L	U	N	Y		U						L10080224-01	14:21
						TRICHLOROETHENE	369	ug/L		Y	Y								L10080224-01	14:21
						TRICHLOROFLUOROMETHANE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
						VINYL ACETATE	6.25	ug/L	U	N	Y		U						L10080224-01	14:21
						VINYL CHLORIDE	0.625	ug/L	U	N	Y		U						L10080224-01	14:21
LHSMW61-100806	SW8260B	SW5030	N	0	1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080224-03	21:47
						1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080224-03	21:47
						1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N	Y		U						L10080224-03	21:47
						1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080224-03	21:47
						1,1-DICHLOROETHANE	0.125	ug/L	U	N	Y		U						L10080224-03	21:47
						1,1-DICHLOROETHENE	0.500	ug/L	U	N	Y		U						L10080224-03	21:47
						1,1-DICHLOROPROPENE	0.250	ug/L	U	N	Y		U						L10080224-03	21:47
						1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N	Y		U						L10080224-03	21:47
						1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N	Y		U						L10080224-03	21:47
						1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N	Y		U						L10080224-03	21:47
						1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N	Y		U						L10080224-03	21:47
						1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N	Y		U						L10080224-03	21:47

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
LHSMW61-100806	SW8260B	SW5030	N 0 1	1,2-DIBROMOETHANE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				1,2-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080224-03	21:47
				1,2-DICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				1,2-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080224-03	21:47
				1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				1,3-DICHLOROBENZENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				1,3-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080224-03	21:47
				1,4-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080224-03	21:47
				2,2-DICHLOROPROPANE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				2-BUTANONE	2.50	ug/L	U	N Y	U			L10080224-03	21:47
				2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N Y	U			L10080224-03	21:47
				2-CHLOROTOLUENE	0.125	ug/L	U	N Y	U			L10080224-03	21:47
				2-HEXANONE	2.50	ug/L	U	N Y	U			L10080224-03	21:47
				4-CHLOROTOLUENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				4-METHYL-2-PENTANONE	2.50	ug/L	U	N Y	U			L10080224-03	21:47
				ACETONE	2.50	ug/L	U	N Y	U			L10080224-03	21:47
				BENZENE	0.125	ug/L	U	N Y	U			L10080224-03	21:47
				BROMOBENZENE	0.125	ug/L	U	N Y	U			L10080224-03	21:47
				BROMOCHLOROMETHANE	0.200	ug/L	U	N Y	U			L10080224-03	21:47
				BROMODICHLOROMETHANE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				BROMOFORM	0.500	ug/L	U	N Y	U			L10080224-03	21:47
				BROMOMETHANE	0.500	ug/L	U	N Y	U			L10080224-03	21:47
				CARBON DISULFIDE	0.500	ug/L	U	N Y	U			L10080224-03	21:47
				CARBON TETRACHLORIDE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				CHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080224-03	21:47
				CHLORODIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				CHLOROETHANE	0.500	ug/L	U	N Y	U			L10080224-03	21:47
				CHLOROFORM	0.125	ug/L	U	N Y	U			L10080224-03	21:47
				CHLOROMETHANE	0.500	ug/L	U	N Y	U			L10080224-03	21:47
				CIS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				DIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				ETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				HEXACHLOROBUTADIENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				ISOPROPYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				M-,P-XYLENE	0.500	ug/L	U	N Y	U			L10080224-03	21:47
				METHYLENE CHLORIDE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				N-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				N-PROPYLBENZENE	0.125	ug/L	U	N Y	U			L10080224-03	21:47
				NAPHTHALENE	0.200	ug/L	U	N Y	U			L10080224-03	21:47
				O-XYLENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				P-ISOPROPYLTOLUENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				SEC-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47

Validation Qualifier Data Entry Verification

Run Date: September 8, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
LHSMW61-100806	SW8260B	SW5030	N 0 1	STYRENE	0.125	ug/L	U	N Y	U			L10080224-03	21:47
				TERT-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				TETRACHLOROETHENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				TOLUENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				TRANS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N Y	U			L10080224-03	21:47
				TRICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080224-03	21:47
				VINYL ACETATE	2.50	ug/L	U	N Y	U			L10080224-03	21:47
				VINYL CHLORIDE	0.250	ug/L	U	N Y	U			L10080224-03	21:47

L100802 24 LHAAP-47

00104517

Chain of Custody

NO. 5895

Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

Laboratory Name: Environmental Waste Solutions C/O MICROBAC Address: 158 STARLITE DR. MARIETTA, OH. 45750 Contact: Stephanie MOSSBURG

Project Name: LHAAP Project Location: KARNACK, TX.

Project No.: 117591.0009A130 Project Contact: Jen HOANG Project Telephone No.: 281-531-3108

Point of Contact: Scott Beesinger Telephone No.: 903-679-3448

Project Manager/Supervisor: Praveen Srivastav

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	VOC	Perchlorate method 6850						Remarks
1	LHSMW54-100806	8/6/10	9:00		✓	W	SITE 47	3	2	1						
2	47WW04-100806	8/6/10	10:30		✓	W	SITE 47	3	2	1						
3	LHSMW61-100806	8/6/10	11:00		✓	W	SITE 61	2	2							
4	47WW23-100806	8/6/10	1:20		✓	W	SITE 47	3	2	1						
5	67WW06-100806	8/6/10	3:00		✓	W	SITE 67	3	2	1						
6	EQUIPMENTRINSE-100806	8/6/10	3:30		✓	W	SITE 67	3	2	1						
7	48WW01-100807	8/7/10	8:45		✓	W	SITE 48	2	2							
8	TRIPBLANK	8/7/10			✓	W		2	2							
9																
10																

Transfers Relinquished By (signature)	Date/Time	Transfers Accepted By (signature)	Date/Time
Scott Beesinger	8/9/10 8:00		

Special Instructions: 5 DAY TAT

Microbac OVD
Received: 08/10/2010 10:05
By: ROBIN KLINGER
Robin L. Klinger

221000008098

Airbill No.:

Sampler's Signature: Scott Beesinger

TAT: ____ Standard ____ Rush Date ____ S ____ Y ____ N ____ Cold

White - Lab Copy Canary - Field Copy Pink - File Copy

Form Number: 433_2
Rev. 10-19-07

00104518

1000008098

COOLER INSPECTION

Microbac®

Received: 08/10/2010 10:05
Delivery Method: UPS
Opened By: Robin Klinger
Comments:

Login(s): L10080224|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0014537	H	2.0	1Z66V7250196424722	5895	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	Yes	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	Yes	Were VOA samples free of headspace (<6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080224
Account: 2773
Project: 2773.025
Samples: 8
Due Date: 13-AUG-2010

Samplenum	Container ID	Products
L10080224-01	723647	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK
3	STORE	ORG4	A1	25-AUG-2010 08:19	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK
3	STORE	ORG4	A1	25-AUG-2010 08:19	JKT	MRT

Samplenum	Container ID	Products
L10080224-01	723648	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2010 15:28	RLK	
2	ANALYZ	W1	SEM	11-AUG-2010 15:36	WTD	RLK
3	STORE	SEM	A1	16-AUG-2010 09:30	RLK	WTD

Samplenum	Container ID	Products
L10080224-02	723649	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK
3	STORE	ORG4	A1	25-AUG-2010 08:19	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK
3	STORE	ORG4	A1	25-AUG-2010 08:19	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080224
Account: 2773
Project: 2773.025
Samples: 8
Due Date: 13-AUG-2010

Samplenum	Container ID	Products
L10080224-02	723650	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2010 15:28	RLK	
2	ANALYZ	W1	SEM	11-AUG-2010 15:36	WTD	RLK
3	STORE	EXT	W1	12-AUG-2010 10:37	RLK	CEB
4	STORE	SEM	A1	16-AUG-2010 09:30	RLK	WTD

Samplenum	Container ID	Products
L10080224-03	723651	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK
3	STORE	ORG4	A1	25-AUG-2010 08:19	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK
3	STORE	ORG4	A1	25-AUG-2010 08:19	JKT	MRT

Samplenum	Container ID	Products
L10080224-04	723652	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK
3	STORE	ORG4	A1	25-AUG-2010 08:19	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK
3	STORE	ORG4	A1	25-AUG-2010 08:19	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080224
Account: 2773
Project: 2773.025
Samples: 8
Due Date: 13-AUG-2010

Samplenum	Container ID	Products
L10080224-04	723653	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2010 15:28	RLK	
2	ANALYZ	W1	SEM	11-AUG-2010 15:36	WTD	RLK
3	STORE	SEM	A1	16-AUG-2010 09:30	RLK	WTD

Samplenum	Container ID	Products
L10080224-05	723654	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK
3	STORE	ORG4	A1	25-AUG-2010 08:19	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK

Samplenum	Container ID	Products
L10080224-05	723655	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2010 15:28	RLK	
2	ANALYZ	W1	SEM	11-AUG-2010 15:36	WTD	RLK
3	STORE	SEM	A1	16-AUG-2010 09:30	RLK	WTD

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080224
Account: 2773
Project: 2773.025
Samples: 8
Due Date: 13-AUG-2010

Samplenum	Container ID	Products
L10080224-06	723656	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK
3	STORE	ORG4	A1	25-AUG-2010 08:19	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK
3	STORE	ORG4	A1	25-AUG-2010 08:19	JKT	MRT

Samplenum	Container ID	Products
L10080224-06	723657	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2010 15:28	RLK	
2	ANALYZ	W1	SEM	11-AUG-2010 15:36	WTD	RLK
3	STORE	SEM	A1	16-AUG-2010 09:30	RLK	WTD

Samplenum	Container ID	Products
L10080224-07	723658	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK
3	STORE	ORG4	A1	25-AUG-2010 08:19	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK
3	STORE	ORG4	A1	25-AUG-2010 08:19	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080224
Account: 2773
Project: 2773.025
Samples: 8
Due Date: 13-AUG-2010

Samplenum	Container ID	Products
L10080224-08	723659	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK
3	STORE	ORG4	A1	25-AUG-2010 08:19	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	10-AUG-2010 15:28	RLK	
2	ANALYZ	V1	ORG4	11-AUG-2010 08:23	MRT	RLK
3	STORE	ORG4	A1	25-AUG-2010 08:19	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080224

08/30/10 15:52

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
LHSMW54-100806	L10080224-01	8260B	2.5	10-AUG-10
47WW04-100806	L10080224-02	8260B	1	10-AUG-10
LHSMW61-100806	L10080224-03	8260B	1	10-AUG-10
47WW23-100806	L10080224-04	8260B	1	10-AUG-10
67WW06-100806	L10080224-05	8260B	1	10-AUG-10
EQUIPMENT RINSE - 100806	L10080224-06	8260B	1	10-AUG-10
48WW01-100807	L10080224-07	8260B	1	10-AUG-10
TRIP BLANK	L10080224-08	8260B	1	10-AUG-10

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-01
Client ID: LHSMW54-100806
Matrix: Water
Workgroup Number: WG339600
Collect Date: 08/06/2010 09:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 2.5
Units: ug/L

Instrument: HPMS6
Prep Date: 08/12/2010 14:21
Cal Date: 08/03/2010 20:48
Run Date: 08/12/2010 14:21
File ID: 6M93051

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	25.0	6.25
Benzene	71-43-2		U	2.50	0.313
Bromobenzene	108-86-1		U	2.50	0.313
Bromochloromethane	74-97-5		U	2.50	0.500
Bromodichloromethane	75-27-4		U	2.50	0.625
Bromoform	75-25-2		U	2.50	1.25
Bromomethane	74-83-9		U	2.50	1.25
2-Butanone	78-93-3		U	25.0	6.25
n-Butylbenzene	104-51-8		U	2.50	0.625
sec-Butylbenzene	135-98-8		U	2.50	0.625
tert-Butylbenzene	98-06-6		U	2.50	0.625
Carbon disulfide	75-15-0		U	2.50	1.25
Carbon tetrachloride	56-23-5		U	2.50	0.625
Chlorobenzene	108-90-7		U	2.50	0.313
Chlorodibromomethane	124-48-1		U	2.50	0.625
Chloroethane	75-00-3		U	2.50	1.25
2-Chloroethyl vinyl ether	110-75-8		U	25.0	5.00
Chloroform	67-66-3		U	2.50	0.313
Chloromethane	74-87-3		U	2.50	1.25
2-Chlorotoluene	95-49-8		U	2.50	0.313
4-Chlorotoluene	106-43-4		U	2.50	0.625
1,2-Dibromo-3-chloropropane	96-12-8		U	12.5	2.50
1,2-Dibromoethane	106-93-4		U	2.50	0.625
Dibromomethane	74-95-3		U	2.50	0.625
1,2-Dichlorobenzene	95-50-1		U	2.50	0.313
1,3-Dichlorobenzene	541-73-1		U	2.50	0.625
1,4-Dichlorobenzene	106-46-7		U	2.50	0.313
Dichlorodifluoromethane	75-71-8		U	2.50	0.625
1,1-Dichloroethane	75-34-3		U	2.50	0.313
1,2-Dichloroethane	107-06-2		U	2.50	0.625
1,1-Dichloroethene	75-35-4		U	2.50	1.25
cis-1,2-Dichloroethene	156-59-2	0.657	J	2.50	0.625
trans-1,2-Dichloroethene	156-60-5		U	2.50	0.625
1,2-Dichloropropane	78-87-5		U	2.50	0.500
1,3-Dichloropropane	142-28-9		U	2.50	0.500
2,2-Dichloropropane	594-20-7		U	2.50	0.625
cis-1,3-Dichloropropene	10061-01-5		U	2.50	0.625
trans-1,3-Dichloropropene	10061-02-6		U	2.50	1.25
1,1-Dichloropropene	563-58-6		U	2.50	0.625
Ethylbenzene	100-41-4		U	2.50	0.625
2-Hexanone	591-78-6		U	25.0	6.25
Hexachlorobutadiene	87-68-3		U	2.50	0.625
Isopropylbenzene	98-82-8		U	2.50	0.625
p-Isopropyltoluene	99-87-6		U	2.50	0.625
4-Methyl-2-pentanone	108-10-1		U	25.0	6.25
Methylene chloride	75-09-2	0.876	J	12.5	0.625
Naphthalene	91-20-3		U	2.50	0.500
n-Propylbenzene	103-65-1		U	2.50	0.313
Styrene	100-42-5		U	2.50	0.313
1,1,1,2-Tetrachloroethane	630-20-6		U	2.50	0.625
1,1,2,2-Tetrachloroethane	79-34-5		U	2.50	0.500
Tetrachloroethene	127-18-4		U	2.50	0.625
Toluene	108-88-3		U	2.50	0.625
1,2,3-Trichlorobenzene	87-61-6		U	2.50	0.375
1,2,4-Trichlorobenzene	120-82-1		U	2.50	0.500
1,1,1-Trichloroethane	71-55-6		U	2.50	0.625
1,1,2-Trichloroethane	79-00-5		U	2.50	0.625
Trichloroethene	79-01-6	369		2.50	0.625
Trichlorofluoromethane	75-69-4		U	2.50	0.625

5

MB-EB

Microbac

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-01
Client ID: LHSMW54-100806
Matrix: Water
Workgroup Number: WG339600
Collect Date: 08/06/2010 09:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 2.5
Units: ug/L

Instrument: HPMS6
Prep Date: 08/12/2010 14:21
Cal Date: 08/03/2010 20:48
Run Date: 08/12/2010 14:21
File ID: 6M93051

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	2.50	1.25
1,2,4-Trimethylbenzene	95-63-6		U	2.50	0.625
1,3,5-Trimethylbenzene	108-67-8		U	2.50	0.625
Vinyl acetate	108-05-4		U	25.0	6.25
Vinyl chloride	75-01-4		U	2.50	0.625
o-Xylene	95-47-6		U	2.50	0.625
m-,p-Xylene	179601-23-1		U	2.50	1.25

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	99.0	86	118	
1,2-Dichloroethane-d4	97.3	80	120	
Toluene-d8	97.1	88	110	
4-Bromofluorobenzene	98.8	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-02
Client ID: 47WW04-100806
Matrix: Water
Workgroup Number: WG339493
Collect Date: 08/06/2010 10:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS11
Prep Date: 08/11/2010 18:42
Cal Date: 08/10/2010 15:43
Run Date: 08/11/2010 18:42
File ID: 11M68189

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-02
Client ID: 47WW04-100806
Matrix: Water
Workgroup Number: WG339493
Collect Date: 08/06/2010 10:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS11
Prep Date: 08/11/2010 18:42
Cal Date: 08/10/2010 15:43
Run Date: 08/11/2010 18:42
File ID: 11M68189

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	97.1	86	118	
1,2-Dichloroethane-d4	95.6	80	120	
Toluene-d8	101	88	110	
4-Bromofluorobenzene	101	86	115	

U Not detected at or above adjusted sample detection limit

8/30/10

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-03
Client ID: LHSMW61-100806
Matrix: Water
Workgroup Number: WG339493
Collect Date: 08/06/2010 11:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS11
Prep Date: 08/11/2010 21:47
Cal Date: 08/10/2010 15:43
Run Date: 08/11/2010 21:47
File ID: 11M68195

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Microbac

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-03
Client ID: LHSMW61-100806
Matrix: Water
Workgroup Number: WG339493
Collect Date: 08/06/2010 11:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS11
Prep Date: 08/11/2010 21:47
Cal Date: 08/10/2010 15:43
Run Date: 08/11/2010 21:47
File ID: 11M68195

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	101	86	118	
1,2-Dichloroethane-d4	99.2	80	120	
Toluene-d8	105	88	110	
4-Bromofluorobenzene	104	86	115	

U Not detected at or above adjusted sample detection limit

8/30/10

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-04
Client ID: 47WW23-100806
Matrix: Water
Workgroup Number: WG339493
Collect Date: 08/06/2010 13:20
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS11
Prep Date: 08/11/2010 19:13
Cal Date: 08/10/2010 15:43
Run Date: 08/11/2010 19:13
File ID: 11M68190

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3	0.571	J	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

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Microbac

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-04
Client ID: 47WW23-100806
Matrix: Water
Workgroup Number: WG339493
Collect Date: 08/06/2010 13:20
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS11
Prep Date: 08/11/2010 19:13
Cal Date: 08/10/2010 15:43
Run Date: 08/11/2010 19:13
File ID: 11M68190

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	102	86	118	
1,2-Dichloroethane-d4	97.5	80	120	
Toluene-d8	100	88	110	
4-Bromofluorobenzene	98.4	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

8/30/10

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-05
Client ID: 67WN06-100806
Matrix: Water
Workgroup Number: WG339600
Collect Date: 08/06/2010 15:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS6
Prep Date: 08/12/2010 13:18
Cal Date: 08/03/2010 20:48
Run Date: 08/12/2010 13:18
File ID: 6M93049

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3	0.177	J	1.00	0.125
1,2-Dichloroethane	107-06-2	2.39		1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

J

09/10/10

Microbac

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-05
Client ID: 67WW06-100806
Matrix: Water
Workgroup Number: WG339600
Collect Date: 08/06/2010 15:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MBS
Dilution: 1
Units: ug/L

Instrument: HPMS6
Prep Date: 08/12/2010 13:18
Cal Date: 08/03/2010 20:48
Run Date: 08/12/2010 13:18
File ID: 6M93049

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	99.5	86	118	
1,2-Dichloroethane-d4	96.6	80	120	
Toluene-d8	95.7	88	110	
4-Bromofluorobenzene	99.3	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

8/26/10

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-06
Client ID: EQUIPMENT RINSE - 100806
Matrix: Water
Workgroup Number: WG339493
Collect Date: 08/06/2010 15:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS11
Prep Date: 08/11/2010 20:15
Cal Date: 08/10/2010 15:43
Run Date: 08/11/2010 20:15
File ID: 11M68192

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2	0.278	J	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

10x = 2.78

U-Eh

Microbac

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-06
Client ID: EQUIPMENT RINSE - 100806
Matrix: Water
Workgroup Number: WG339493
Collect Date: 08/06/2010 15:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS11
Prep Date: 08/11/2010 20:15
Cal Date: 08/10/2010 15:43
Run Date: 08/11/2010 20:15
File ID: 11M68192

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	104	86	118	
1,2-Dichloroethane-d4	102	80	120	
Toluene-d8	101	88	110	
4-Bromofluorobenzene	98.4	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-07
Client ID: 48WW01-100807
Matrix: Water
Workgroup Number: WG339600
Collect Date: 08/07/2010 08:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS6
Prep Date: 08/12/2010 13:49
Cal Date: 08/03/2010 20:48
Run Date: 08/12/2010 13:49
File ID: 6M93050

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Microbac

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-07
Client ID: 48WW01-100807
Matrix: Water
Workgroup Number: WG339600
Collect Date: 08/07/2010 08:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS6
Prep Date: 08/12/2010 13:49
Cal Date: 08/03/2010 20:48
Run Date: 08/12/2010 13:49
File ID: 6M93050

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	100	86	118	
1,2-Dichloroethane-d4	96.4	80	120	
Toluene-d8	97.0	88	110	
4-Bromofluorobenzene	99.1	86	115	

U Not detected at or above adjusted sample detection limit

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-08
Client ID: TRIP BLANK
Matrix: Water
Workgroup Number: WG339493
Collect Date: 08/07/2010 00:01
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS11
Prep Date: 08/11/2010 15:38
Cal Date: 08/10/2010 15:43
Run Date: 08/11/2010 15:38
File ID: 11M68183

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0	0.891	J	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

JK
Sample
ND

Microbac

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-08
Client ID: TRIP BLANK
Matrix: Water
Workgroup Number: WG339493
Collect Date: 08/07/2010 00:01
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MBS
Dilution: 1
Units: ug/L

Instrument: HPMS11
Prep Date: 08/11/2010 15:38
Cal Date: 08/10/2010 15:43
Run Date: 08/11/2010 15:38
File ID: 11M68183

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	104	86	118	
1,2-Dichloroethane-d4	102	80	120	
Toluene-d8	101	88	110	
4-Bromofluorobenzene	99.7	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080224
Blank File ID: 11M68177
Prep Date: 08/11/10 12:33
Analyzed Date: 08/11/10 12:33
Analyst: MES

Work Group: WG339493
Blank Sample ID: WG339493-01
Instrument ID: HPMS11
Method: 8260B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG339493-02	11M68179	08/11/10 13:34	01
LCS2	WG339493-03	11M68180	08/11/10 14:05	01
TRIP BLANK	L10080224-08	11M68183	08/11/10 15:38	01
47WW04-100806	L10080224-02	11M68189	08/11/10 18:42	01
47WW23-100806	L10080224-04	11M68190	08/11/10 19:13	01
EQUIPMENT RINSE - 100806	L10080224-06	11M68192	08/11/10 20:15	01
LHSMW61-100806	L10080224-03	11M68195	08/11/10 21:47	01

Report Name: BLANK_SUMMARY
PDF File ID: 1752691
Report generated 08/13/2010 14:23

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Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080224
Blank File ID: 6M93044
Prep Date: 08/12/10 10:39
Analyzed Date: 08/12/10 10:39
Analyst: MES

Work Group: WG339600
Blank Sample ID: WG339600-01
Instrument ID: HPMS6
Method: 8260B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG339600-02	6M93045	08/12/10 11:11	01
LCS2	WG339600-03	6M93046	08/12/10 11:42	01
67WW06-100806	L10080224-05	6M93049	08/12/10 13:18	01
48WW01-100807	L10080224-07	6M93050	08/12/10 13:49	01
LHSMW54-100806	L10080224-01	6M93051	08/12/10 14:21	01

Report Name: BLANK_SUMMARY
PDF File ID: 1752691
Report generated 08/13/2010 14:23

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080224 Prep Date:08/11/10 12:33 Sample ID:WG339493-01
Instrument ID:HPMS11 Run Date:08/11/10 12:33 Prep Method:5030B/5030C/503
File ID:11M68177 Analyst:MES Method:8260B
Workgroup (AAB#):WG339493 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID:HPMS11-10-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.500	1.00	0.500	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name:BLANK
PDF ID: 1752692
13-AUG-2010 14:23

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080224 Prep Date:08/11/10 12:33 Sample ID:WG339493-01

Instrument ID:HPMS11 Run Date:08/11/10 12:33 Prep Method:5030B/5030C/503

File ID:11M68177 Analyst:MES Method:8260B

Workgroup (AAB#):WG339493 Matrix:Water Units:ug/L

Contract #:DACA56-94-D-0020 Cal ID:HPMS11-10-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.200	1.00	0.200	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
Dibromofluoromethane	105	86	-	118	PASS
1,2-Dichloroethane-d4	101	80	-	120	PASS
Toluene-d8	108	88	-	110	PASS
4-Bromofluorobenzene	104	86	-	115	PASS

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name:BLANK

PDF ID: 1752692

13-AUG-2010 14:23

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080224 Prep Date:08/12/10 10:39 Sample ID:WG339600-01
Instrument ID:HPMS6 Run Date:08/12/10 10:39 Prep Method:5030B/5030C/503
File ID:6M93044 Analyst:MES Method:8260B
Workgroup (AAB#):WG339600 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: HPMS6-03-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.500	1.00	0.500	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name:BLANK
PDF ID: 1752692
13-AUG-2010 14:23

Microbac

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080224 Prep Date:08/12/10 10:39 Sample ID:WG339600-01
Instrument ID:HPMS6 Run Date:08/12/10 10:39 Prep Method:5030B/5030C/503
File ID:6M93044 Analyst:MES Method:8260B
Workgroup (AAB#):WG339600 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: HPMS6-03-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.200	1.00	0.200	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
Dibromofluoromethane	98.5	86	-	118	PASS
1,2-Dichloroethane-d4	95.6	80	-	120	PASS
Toluene-d8	97.3	88	-	110	PASS
4-Bromofluorobenzene	101	86	-	115	PASS

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1752692
13-AUG-2010 14:23

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080224 Analyst:MES Prep Method:5030B/5030C/503
Instrument ID:HPMS6 Matrix:Water Method:8260B
Workgroup (AAB#):WG339600 Units:ug/L
QC Key:STD Lot #:STD40816

Sample ID:WG339600-02 LCS File ID:6M93045 Run Date:08/12/2010 11:11
Sample ID:WG339600-03 LCS2 File ID:6M93046 Run Date:08/12/2010 11:42

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	18.1	90.4	20.0	17.8	89.1	1.39	40 - 180	20	
Benzene	20.0	20.4	102	20.0	19.4	97.2	4.71	80 - 121	20	
Bromobenzene	20.0	21.5	108	20.0	21.4	107	0.352	80 - 120	20	
Bromochloromethane	20.0	21.5	107	20.0	20.7	103	3.88	65 - 130	20	
Bromodichloromethane	20.0	22.2	111	20.0	21.3	107	4.09	80 - 131	20	
Bromoform	20.0	21.1	105	20.0	21.3	106	0.987	70 - 130	20	
Bromomethane	20.0	15.7	78.4	20.0	14.8	73.8	6.09	30 - 145	20	
2-Butanone	20.0	18.1	90.4	20.0	17.2	86.0	5.05	10 - 170	20	
n-Butylbenzene	20.0	21.6	108	20.0	20.6	103	4.69	80 - 131	20	
sec-Butylbenzene	20.0	22.0	110	20.0	21.3	106	3.50	80 - 127	20	
tert-Butylbenzene	20.0	21.4	107	20.0	20.3	102	5.39	80 - 126	20	
Carbon disulfide	20.0	26.4	132	20.0	25.1	125	5.06	58 - 128	20	*
Carbon tetrachloride	20.0	22.7	114	20.0	21.3	107	6.53	65 - 140	20	
Chlorobenzene	20.0	21.0	105	20.0	20.3	101	3.26	80 - 120	20	
Chlorodibromomethane	20.0	22.2	111	20.0	21.6	108	2.85	60 - 135	20	
Chloroethane	20.0	20.1	100	20.0	18.8	93.8	6.76	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	19.0	95.2	20.0	18.7	93.6	1.73	45 - 160	20	
Chloroform	20.0	20.6	103	20.0	19.7	98.5	4.42	80 - 125	20	
Chloromethane	20.0	16.8	84.2	20.0	15.6	78.1	7.45	40 - 125	20	
2-Chlorotoluene	20.0	21.8	109	20.0	19.1	95.6	13.1	80 - 127	20	
4-Chlorotoluene	20.0	20.6	103	20.0	21.9	109	6.01	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	17.9	89.5	20.0	18.7	93.3	4.13	50 - 130	20	
1,2-Dibromoethane	20.0	21.1	105	20.0	20.4	102	3.27	80 - 129	20	
Dibromomethane	20.0	21.1	105	20.0	20.6	103	2.43	75 - 125	20	
1,2-Dichlorobenzene	20.0	20.9	104	20.0	20.3	101	2.89	80 - 125	20	
1,3-Dichlorobenzene	20.0	21.3	106	20.0	20.7	103	3.04	80 - 120	20	
1,4-Dichlorobenzene	20.0	20.3	101	20.0	20.1	100	1.05	80 - 120	20	
Dichlorodifluoromethane	20.0	12.1	60.5	20.0	11.2	56.0	7.79	40 - 160	20	
1,1-Dichloroethane	20.0	20.2	101	20.0	19.5	97.6	3.31	80 - 125	20	
1,2-Dichloroethane	20.0	20.9	104	20.0	20.1	100	4.10	80 - 129	20	
1,1-Dichloroethene	20.0	19.5	97.4	20.0	18.2	91.1	6.77	80 - 132	20	
cis-1,2-Dichloroethene	20.0	20.5	103	20.0	19.7	98.7	3.74	70 - 125	20	
trans-1,2-Dichloroethene	20.0	20.7	104	20.0	19.3	96.3	7.18	80 - 127	20	
1,2-Dichloropropane	20.0	20.8	104	20.0	19.7	98.7	5.15	80 - 120	20	
1,3-Dichloropropane	20.0	20.1	100	20.0	20.3	101	1.17	80 - 120	20	
2,2-Dichloropropane	20.0	21.5	107	20.0	20.1	100	6.80	80 - 133	20	
cis-1,3-Dichloropropene	20.0	21.5	108	20.0	20.7	103	3.95	70 - 130	20	
trans-1,3-Dichloropropene	20.0	19.3	96.5	20.0	18.9	94.4	2.23	80 - 130	20	
1,1-Dichloropropene	20.0	20.7	103	20.0	19.4	96.9	6.35	75 - 130	20	
Ethylbenzene	20.0	18.7	93.6	20.0	18.3	91.4	2.43	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID:1751450
Report generated: 08/13/2010 14:23

Microbac

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080224 Analyst:MES Prep Method:5030B/5030C/503
Instrument ID:HPMS6 Matrix:Water Method:8260B
Workgroup (AAB#):WG339600 Units:ug/L
QC Key:STD Lot #:STD40816

Sample ID:WG339600-02 LCS File ID:6M93045 Run Date:08/12/2010 11:11
Sample ID:WG339600-03 LCS2 File ID:6M93046 Run Date:08/12/2010 11:42

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	17.3	86.6	20.0	16.9	84.7	2.23	55 - 130	20	
Hexachlorobutadiene	20.0	18.6	92.9	20.0	17.4	86.9	6.76	72 - 132	20	
Isopropylbenzene	20.0	17.6	88.1	20.0	16.9	84.5	4.16	80 - 122	20	
p-Isopropyltoluene	20.0	20.6	103	20.0	19.8	99.1	4.01	80 - 122	20	
4-Methyl-2-pentanone	20.0	20.3	101	20.0	18.5	92.3	9.35	64 - 140	20	
Methylene chloride	20.0	19.6	97.9	20.0	19.1	95.5	2.48	80 - 123	20	
Naphthalene	20.0	19.9	99.7	20.0	20.0	100	0.417	59 - 149	20	
n-Propylbenzene	20.0	21.9	109	20.0	20.9	105	4.39	80 - 129	20	
Styrene	20.0	19.2	96.1	20.0	18.8	93.9	2.24	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	21.6	108	20.0	20.9	105	2.98	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	20.5	103	20.0	20.5	103	0.0455	79 - 125	20	
Tetrachloroethene	20.0	21.3	107	20.0	20.1	101	5.69	80 - 124	20	
Toluene	20.0	21.2	106	20.0	20.2	101	5.19	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	20.8	104	20.0	20.4	102	1.73	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	19.6	98.0	20.0	19.3	96.4	1.70	65 - 135	20	
1,1,1-Trichloroethane	20.0	21.8	109	20.0	20.8	104	4.78	80 - 134	20	
1,1,2-Trichloroethane	20.0	21.2	106	20.0	21.0	105	0.821	80 - 125	20	
Trichloroethene	20.0	20.2	101	20.0	18.9	94.6	6.61	80 - 122	20	
Trichlorofluoromethane	20.0	19.8	99.2	20.0	18.5	92.6	6.98	62 - 151	20	
1,2,3-Trichloropropane	20.0	21.1	105	20.0	21.2	106	0.309	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	22.0	110	20.0	21.3	106	3.34	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	22.1	110	20.0	21.2	106	3.91	80 - 127	20	
Vinyl acetate	20.0	19.1	95.4	20.0	18.2	91.2	4.48	10 - 190	20	
Vinyl chloride	20.0	22.5	112	20.0	20.6	103	8.66	50 - 170	20	
o-Xylene	20.0	19.5	97.3	20.0	18.5	92.6	4.96	80 - 122	20	
m-,p-Xylene	40.0	43.0	107	40.0	40.9	102	5.10	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	98.5	96.3	80 - 120	PASS
Dibromofluoromethane	100	99.6	86 - 118	PASS
4-Bromofluorobenzene	102	101	86 - 115	PASS
Toluene-d8	99.3	99.3	88 - 110	PASS

* EXCEEDS %REC LIMIT

\# EXCEEDS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID:1751450
Report generated: 08/13/2010 14:23

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080224 Analyst:MES Prep Method:5030B/5030C/503
Instrument ID:HPMS11 Matrix:Water Method:8260B
Workgroup (AAB#):WG339493 Units:ug/L
QC Key:STD Lot #:STD40816

Sample ID:WG339493-02 LCS File ID:11M68179 Run Date:08/11/2010 13:34
Sample ID:WG339493-03 LCS2 File ID:11M68180 Run Date:08/11/2010 14:05

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	22.8	114	20.0	21.3	106	7.08	40 - 180	20	
Benzene	20.0	22.3	112	20.0	20.7	104	7.43	80 - 121	20	
Bromobenzene	20.0	22.1	110	20.0	20.3	102	8.26	80 - 120	20	
Bromochloromethane	20.0	23.1	115	20.0	21.8	109	5.92	65 - 130	20	
Bromodichloromethane	20.0	24.3	122	20.0	22.9	115	5.97	80 - 131	20	
Bromoform	20.0	19.9	99.7	20.0	18.5	92.4	7.59	70 - 130	20	
Bromomethane	20.0	21.5	108	20.0	20.1	101	6.69	30 - 145	20	
2-Butanone	20.0	21.3	107	20.0	20.0	100	6.32	10 - 170	20	
n-Butylbenzene	20.0	22.8	114	20.0	20.9	104	8.66	80 - 131	20	
sec-Butylbenzene	20.0	22.6	113	20.0	20.6	103	9.27	80 - 127	20	
tert-Butylbenzene	20.0	22.2	111	20.0	20.5	103	7.79	80 - 126	20	
Carbon disulfide	20.0	14.7	73.7	20.0	13.5	67.4	8.92	58 - 128	20	
Carbon tetrachloride	20.0	24.3	122	20.0	22.8	114	6.39	65 - 140	20	
Chlorobenzene	20.0	22.7	113	20.0	21.0	105	7.57	80 - 120	20	
Chlorodibromomethane	20.0	24.0	120	20.0	21.8	109	9.57	60 - 135	20	
Chloroethane	20.0	23.4	117	20.0	21.6	108	8.05	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	21.6	108	20.0	20.8	104	3.73	45 - 160	20	
Chloroform	20.0	22.5	112	20.0	21.1	106	6.08	80 - 125	20	
Chloromethane	20.0	20.4	102	20.0	18.8	93.9	8.29	40 - 125	20	
2-Chlorotoluene	20.0	22.7	114	20.0	20.5	102	10.3	80 - 127	20	
4-Chlorotoluene	20.0	21.1	105	20.0	19.7	98.3	6.95	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	21.7	109	20.0	19.9	99.6	8.63	50 - 130	20	
1,2-Dibromoethane	20.0	23.0	115	20.0	21.7	108	6.06	80 - 129	20	
Dibromomethane	20.0	23.2	116	20.0	22.3	112	4.03	75 - 125	20	
1,2-Dichlorobenzene	20.0	22.6	113	20.0	20.5	103	9.48	80 - 125	20	
1,3-Dichlorobenzene	20.0	22.2	111	20.0	20.1	100	9.82	80 - 120	20	
1,4-Dichlorobenzene	20.0	21.7	109	20.0	20.0	99.8	8.55	80 - 120	20	
Dichlorodifluoromethane	20.0	17.1	85.7	20.0	16.2	81.0	5.61	40 - 160	20	
1,1-Dichloroethane	20.0	22.9	114	20.0	21.2	106	7.76	80 - 125	20	
1,2-Dichloroethane	20.0	23.0	115	20.0	21.8	109	5.61	80 - 129	20	
1,1-Dichloroethene	20.0	21.9	109	20.0	20.3	101	7.56	80 - 132	20	
cis-1,2-Dichloroethene	20.0	23.0	115	20.0	21.5	108	6.31	70 - 125	20	
trans-1,2-Dichloroethene	20.0	23.2	116	20.0	21.3	107	8.38	80 - 127	20	
1,2-Dichloropropane	20.0	22.5	112	20.0	20.9	105	7.01	80 - 120	20	
1,3-Dichloropropane	20.0	22.1	111	20.0	20.9	104	5.92	80 - 120	20	
2,2-Dichloropropane	20.0	22.8	114	20.0	21.0	105	8.23	80 - 133	20	
cis-1,3-Dichloropropene	20.0	22.7	114	20.0	21.1	106	7.30	70 - 130	20	
trans-1,3-Dichloropropene	20.0	20.6	103	20.0	19.1	95.6	7.52	80 - 130	20	
1,1-Dichloropropene	20.0	22.5	112	20.0	21.1	105	6.56	75 - 130	20	
Ethylbenzene	20.0	23.4	117	20.0	21.6	108	7.83	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1751450
Report generated: 08/13/2010 14:23

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080224 Analyst:MES Prep Method:5030B/5030C/503
Instrument ID:HPMS11 Matrix:Water Method:8260B
Workgroup (AAB#):WG339493 Units:ug/L
QC Key:STD Lot #:STD40816

Sample ID:WG339493-02 LCS File ID:11M68179 Run Date:08/11/2010 13:34
Sample ID:WG339493-03 LCS2 File ID:11M68180 Run Date:08/11/2010 14:05

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	21.4	107	20.0	19.9	99.6	7.36	55 - 130	20	
Hexachlorobutadiene	20.0	21.6	108	20.0	19.8	98.8	9.04	72 - 132	20	
Isopropylbenzene	20.0	20.6	103	20.0	18.9	94.6	8.30	80 - 122	20	
p-Isopropyltoluene	20.0	21.8	109	20.0	20.0	99.8	8.92	80 - 122	20	
4-Methyl-2-pentanone	20.0	20.9	105	20.0	19.9	99.6	4.89	64 - 140	20	
Methylene chloride	20.0	21.9	110	20.0	20.6	103	6.47	80 - 123	20	
Naphthalene	20.0	20.1	101	20.0	18.6	93.1	7.78	59 - 149	20	
n-Propylbenzene	20.0	22.4	112	20.0	20.5	103	8.97	80 - 129	20	
Styrene	20.0	23.2	116	20.0	21.4	107	7.85	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	23.7	119	20.0	22.0	110	7.31	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	22.3	112	20.0	20.3	101	9.65	79 - 125	20	
Tetrachloroethene	20.0	23.2	116	20.0	21.1	106	9.09	80 - 124	20	
Toluene	20.0	23.0	115	20.0	21.2	106	8.23	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	20.6	103	20.0	18.8	94.1	8.92	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	19.6	97.9	20.0	18.0	89.9	8.50	65 - 135	20	
1,1,1-Trichloroethane	20.0	23.5	117	20.0	22.0	110	6.67	80 - 134	20	
1,1,2-Trichloroethane	20.0	23.1	115	20.0	21.3	106	7.98	80 - 125	20	
Trichloroethene	20.0	22.8	114	20.0	21.2	106	7.32	80 - 122	20	
Trichlorofluoromethane	20.0	24.3	122	20.0	22.5	112	7.78	62 - 151	20	
1,2,3-Trichloropropane	20.0	21.0	105	20.0	19.6	98.0	6.69	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	22.7	114	20.0	20.7	104	9.20	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	22.1	111	20.0	20.1	101	9.42	80 - 127	20	
Vinyl acetate	20.0	15.8	79.0	20.0	14.9	74.3	6.19	10 - 190	20	
Vinyl chloride	20.0	21.6	108	20.0	20.1	100	7.22	50 - 170	20	
o-Xylene	20.0	22.8	114	20.0	21.2	106	7.49	80 - 122	20	
m-,p-Xylene	40.0	46.7	117	40.0	43.0	108	8.06	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	103	98.6	80 - 120	PASS
Dibromofluoromethane	107	104	86 - 118	PASS
4-Bromofluorobenzene	99.9	93.4	86 - 115	PASS
Toluene-d8	106	101	88 - 110	PASS

* EXCEEDS %REC LIMIT

\# EXCEEDS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1751450
Report generated: 08/13/2010 14:23

2.2.1 LC/MS Data (6850)

2.2.1.1 Summary Data

LABORATORY REPORT

L10080224

08/30/10 15:52

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
LHSMW54-100806	L10080224-01	6850	1	10-AUG-10
47WW04-100806	L10080224-02	6850	1	10-AUG-10
47WW23-100806	L10080224-04	6850	1	10-AUG-10
67WW06-100806	L10080224-05	6850	1	10-AUG-10
EQUIPMENT RINSE - 100806	L10080224-06	6850	1	10-AUG-10

00104560

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-01
Client ID: LHSMW54-100806
Matrix: Water
Workgroup Number: WG339542
Collect Date: 08/06/2010 09:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/L

Instrument: LCMS1
Prep Date: 08/12/2010 09:19
Cal Date: 08/11/2010 16:22
Run Date: 08/12/2010 15:16
File ID: 1LM.LM04566

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	0.200	0.100

U Not detected at or above adjusted sample detection limit

Microbac

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-02
Client ID: 47WW04-100806
Matrix: Water
Workgroup Number: WG339542
Collect Date: 08/06/2010 10:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/L

Instrument: LCMS1
Prep Date: 08/12/2010 09:19
Cal Date: 08/11/2010 16:22
Run Date: 08/12/2010 15:40
File ID: 1LM.LM04567

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	0.200	0.100

U Not detected at or above adjusted sample detection limit

00104562

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-04
Client ID: 47WW23-100806
Matrix: Water
Workgroup Number: WG339542
Collect Date: 08/06/2010 13:20
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/L

Instrument: LCMS1
Prep Date: 08/12/2010 09:19
Cal Date: 08/11/2010 16:22
Run Date: 08/12/2010 16:03
File ID: 1LM.LM04568

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	0.200	0.100

U Not detected at or above adjusted sample detection limit

Microbac

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-05
Client ID: 67WW06-100806
Matrix: Water
Workgroup Number: WG339542
Collect Date: 08/06/2010 15:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/L

Instrument: LCMS1
Prep Date: 08/12/2010 09:19
Cal Date: 08/11/2010 16:22
Run Date: 08/12/2010 16:26
File ID: 1LM.LM04569

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	0.200	0.100

U Not detected at or above adjusted sample detection limit

8/30/10

Report Number: L10080224
Report Date : August 30, 2010

Sample Number: L10080224-06
Client ID: EQUIPMENT RINSE - 100806
Matrix: Water
Workgroup Number: WG339542
Collect Date: 08/06/2010 15:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/L

Instrument: LCMS1
Prep Date: 08/12/2010 09:19
Cal Date: 08/11/2010 16:22
Run Date: 08/12/2010 16:50
File ID: 1LM.LM04570

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	0.200	0.100

U Not detected at or above adjusted sample detection limit

2.2.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080224
Blank File ID: 1LM.LM04563
Prep Date: 08/12/10 09:19
Analyzed Date: 08/12/10 14:06
Analyst: WTD

Work Group: WG339542
Blank Sample ID: WG339542-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG339542-05	1LM.LM04560	08/12/10 12:55	01
MCT	WG339542-01	1LM.LM04562	08/12/10 13:42	01
LCS	WG339542-03	1LM.LM04564	08/12/10 14:29	01
LCS2	WG339542-04	1LM.LM04565	08/12/10 14:53	01
LHSMW54-100806	L10080224-01	1LM.LM04566	08/12/10 15:16	01
47WW04-100806	L10080224-02	1LM.LM04567	08/12/10 15:40	01
47WW23-100806	L10080224-04	1LM.LM04568	08/12/10 16:03	01
67WW06-100806	L10080224-05	1LM.LM04569	08/12/10 16:26	01
EQUIPMENT RINSE - 100806	L10080224-06	1LM.LM04570	08/12/10 16:50	01
QCMRL	WG339542-06	1LM.LM04573	08/12/10 18:29	01
QCMRL	WG339542-07	1LM.LM04580	08/12/10 21:13	01
QCMRL	WG339542-09	1LM.LM04584	08/13/10 11:37	01
QCMRL	WG339542-10	1LM.LM04594	08/13/10 16:38	01

Report Name: BLANK_SUMMARY
PDF File ID: 1752131
Report generated 08/16/2010 16:56

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080224 Prep Date:08/12/10 09:19 Sample ID:WG339542-02
Instrument ID:LCMS1 Run Date:08/12/10 14:06 Prep Method:6850
File ID:1LM.LM04563 Analyst:WTD Method:6850
Workgroup (AAB#):WG339542 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-11-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.100	0.200	0.100	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1752132
16-AUG-2010 16:56

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080224 Analyst: WTD Prep Method: 6850
Instrument ID: LCMS1 Matrix: Water Method: 6850
Workgroup (AAB#): WG339542 Units: ug/L
QC Key: STD Lot #: STD40370

Sample ID: WG339542-03 LCS File ID: 1LM.LM04564 Run Date: 08/12/2010 14:29
Sample ID: WG339542-04 LCS2 File ID: 1LM.LM04565 Run Date: 08/12/2010 14:53

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	0.200	0.201	101	0.200	0.192	96.0	4.58	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1752133
Report generated: 08/16/2010 16:56

Microbac

Conductivity Probe Calibration Check: 1419 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG339542-01 MCT	10,450	NA
-02 BLK	0.0	
-03 LCS	0.0	
-04 LCSD	0.0	
L1008022401	1503	
-02	5180	
-04	953	
-05	6640	
-06	5.7	
L1008022601	992	
-02	2300	
-03	2280	
-04	1574	
-05	0.4	

Wade T. [signature]
Analyst

8-12-10 / 0952
Date/Time

DCN#84015

158 Starlite Drive, Marietta, OH 45750 • T:740-373-4071 • F:740-373-4835 • http://www.microbac.com

Laboratory Report Number: L10080308

Client: Jennifer Hoang, 1401 Enclave Parkway, Houston, TX, 77077
Contract #: DACA56-94-D-0020

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories.

Review and compilation of your report was completed by Microbac's Sales and Service Team. If you have questions, comments or require further assistance regarding this report, please contact your team member noted in the reviewed box below at 800-373-4071. Team member e-mail addresses also appear here for your convenience.

Kathy Albertson	*Team Chemist/Data Specialist*	Kathy.Albertson@microbac.com
Stephanie Mossburg	*Team Chemist/Data Specialist*	Stephanie.Mossburg@microbac.com
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Annie Brown	*Client Services Specialist*	Annie.Brown@microbac.com

This report was reviewed on August 17, 2010.

Stephanie Mossburg - Team Chemist/Data Specialist

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on August 17, 2010.

David Vandenberg - Managing Director

State of origin: Texas
Accrediting authority: Texas Commission on Environmental Quality ID:T104704252-07-TX
QAPP: Microbac OVD
This report contains a total of 96 pages.

Look closer. Go further. Do more.

Microbac

Microbac Laboratories, Inc.
Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750

Phone: 800.373.4071
Fax: 740.373.4835

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Microbac REPORT L10080308
PREPARED FOR for Shaw E I, Inc.
WORK ID:

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1.0 Introduction

2.1 Volatiles Data

LABORATORY REPORT

L10080308

00104575

08/16/10 09:11

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47DPT04	L10080308-01	8260B	1	13-AUG-10
47DPT02	L10080308-02	8260B	1	13-AUG-10
TRIP BLANK	L10080308-03	8260B	1	13-AUG-10

Report Number: **L10080308**
Report Date : **August 16, 2010**

00104576

Sample Number: **L10080308-01**
Client ID: **47DPT04**
Matrix: **Water**
Workgroup Number: **WG339770**
Collect Date: **08/12/2010 08:30**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS10**
Prep Date: **08/13/2010 23:04**
Cal Date: **08/09/2010 20:24**
Run Date: **08/13/2010 23:04**
File ID: **10M81291**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	21.3		10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3	9.55	J	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3	0.633	J	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2	0.422	J	5.00	0.250
Naphthalene	91-20-3	0.647	J	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3	0.838	J	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L10080308**
Report Date : **August 16, 2010**

00104577

Sample Number: **L10080308-01**
Client ID: **47DPT04**
Matrix: **Water**
Workgroup Number: **WG339770**
Collect Date: **08/12/2010 08:30**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS10**
Prep Date: **08/13/2010 23:04**
Cal Date: **08/09/2010 20:24**
Run Date: **08/13/2010 23:04**
File ID: **10M81291**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6	0.489	J	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6	0.457	J	1.00	0.250
m-,p-Xylene	179601-23-1	0.551	J	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	113	86	118	
1,2-Dichloroethane-d4	121	80	120	*
Toluene-d8	104	88	110	
4-Bromofluorobenzene	108	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL
***** Surrogate or spike compound out of range

Report Number: **L10080308**
Report Date : **August 16, 2010**

00104578

Sample Number: **L10080308-02**
Client ID: **47DPT02**
Matrix: **Water**
Workgroup Number: **WG339770**
Collect Date: **08/12/2010 09:00**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS10**
Prep Date: **08/13/2010 23:35**
Cal Date: **08/09/2010 20:24**
Run Date: **08/13/2010 23:35**
File ID: **10M81292**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	26.0		10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3	10.2		10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2	2.91		1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3	0.313	J	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3	0.662	J	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6	84.1		1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L10080308**
Report Date : **August 16, 2010**

00104579

Sample Number: **L10080308-02**
Client ID: **47DPT02**
Matrix: **Water**
Workgroup Number: **WG339770**
Collect Date: **08/12/2010 09:00**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS10**
Prep Date: **08/13/2010 23:35**
Cal Date: **08/09/2010 20:24**
Run Date: **08/13/2010 23:35**
File ID: **10M81292**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6	0.310	J	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	116	86	118	
1,2-Dichloroethane-d4	123	80	120	*
Toluene-d8	105	88	110	
4-Bromofluorobenzene	108	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL
***** Surrogate or spike compound out of range

Report Number: **L10080308**
Report Date : **August 16, 2010**

00104580

Sample Number: **L10080308-03**
Client ID: **TRIP BLANK**
Matrix: **Water**
Workgroup Number: **WG339770**
Collect Date: **08/12/2010 00:01**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS10**
Prep Date: **08/13/2010 18:19**
Cal Date: **08/09/2010 20:24**
Run Date: **08/13/2010 18:19**
File ID: **10M81282**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	2.64	J	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2	0.305	J	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L10080308**
Report Date : **August 16, 2010**

00104581

Sample Number: **L10080308-03**
Client ID: **TRIP BLANK**
Matrix: **Water**
Workgroup Number: **WG339770**
Collect Date: **08/12/2010 00:01**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS10**
Prep Date: **08/13/2010 18:19**
Cal Date: **08/09/2010 20:24**
Run Date: **08/13/2010 18:19**
File ID: **10M81282**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	112	86	118	
1,2-Dichloroethane-d4	115	80	120	
Toluene-d8	103	88	110	
4-Bromofluorobenzene	110	86	115	

J The analyte was positively identified, but the quantitation was below the RL
U Not detected at or above adjusted sample detection limit

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080308

00104584

08/17/10 13:34

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47DPT04	L10080308-01	8260B	1	13-AUG-10
47DPT02	L10080308-02	8260B	1	13-AUG-10
TRIP BLANK	L10080308-03	8260B	1	13-AUG-10

Report Number: **L10080308**
Report Date : **August 17, 2010**

00104585

Sample Number: **L10080308-01**
Client ID: **47DPT04**
Matrix: **Water**
Workgroup Number: **WG339770**
Collect Date: **08/12/2010 08:30**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS10**
Prep Date: **08/13/2010 23:04**
Cal Date: **08/09/2010 20:24**
Run Date: **08/13/2010 23:04**
File ID: **10M81291**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	21.3		10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3	9.55	J	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3	0.633	J	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2	0.422	J	5.00	0.250
Naphthalene	91-20-3	0.647	J	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3	0.838	J	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L10080308**
Report Date : **August 17, 2010**

00104586

Sample Number: **L10080308-01**
Client ID: **47DPT04**
Matrix: **Water**
Workgroup Number: **WG339770**
Collect Date: **08/12/2010 08:30**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS10**
Prep Date: **08/13/2010 23:04**
Cal Date: **08/09/2010 20:24**
Run Date: **08/13/2010 23:04**
File ID: **10M81291**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6	0.489	J	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6	0.457	J	1.00	0.250
m-,p-Xylene	179601-23-1	0.551	J	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	113	86	118	
1,2-Dichloroethane-d4	121	80	120	*
Toluene-d8	104	88	110	
4-Bromofluorobenzene	108	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL
***** Surrogate or spike compound out of range

Report Number: **L10080308**
Report Date : **August 17, 2010**

00104587

Sample Number: **L10080308-02**
Client ID: **47DPT02**
Matrix: **Water**
Workgroup Number: **WG339770**
Collect Date: **08/12/2010 09:00**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS10**
Prep Date: **08/13/2010 23:35**
Cal Date: **08/09/2010 20:24**
Run Date: **08/13/2010 23:35**
File ID: **10M81292**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	26.0		10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3	10.2		10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2	2.91		1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3	0.313	J	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3	0.662	J	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6	84.1		1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L10080308**
Report Date : **August 17, 2010**

00104588

Sample Number: **L10080308-02**
Client ID: **47DPT02**
Matrix: **Water**
Workgroup Number: **WG339770**
Collect Date: **08/12/2010 09:00**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS10**
Prep Date: **08/13/2010 23:35**
Cal Date: **08/09/2010 20:24**
Run Date: **08/13/2010 23:35**
File ID: **10M81292**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6	0.310	J	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	116	86	118	
1,2-Dichloroethane-d4	123	80	120	*
Toluene-d8	105	88	110	
4-Bromofluorobenzene	108	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL
***** Surrogate or spike compound out of range

Report Number: **L10080308**
Report Date : **August 17, 2010**

00104589

Sample Number: **L10080308-03**
Client ID: **TRIP BLANK**
Matrix: **Water**
Workgroup Number: **WG339770**
Collect Date: **08/12/2010 00:01**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS10**
Prep Date: **08/13/2010 18:19**
Cal Date: **08/09/2010 20:24**
Run Date: **08/13/2010 18:19**
File ID: **10M81282**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	2.64	J	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2	0.305	J	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L10080308**
Report Date : **August 17, 2010**

00104590

Sample Number: **L10080308-03**
Client ID: **TRIP BLANK**
Matrix: **Water**
Workgroup Number: **WG339770**
Collect Date: **08/12/2010 00:01**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **TMB**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS10**
Prep Date: **08/13/2010 18:19**
Cal Date: **08/09/2010 20:24**
Run Date: **08/13/2010 18:19**
File ID: **10M81282**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	112	86	118	
1,2-Dichloroethane-d4	115	80	120	
Toluene-d8	103	88	110	
4-Bromofluorobenzene	110	86	115	

J The analyte was positively identified, but the quantitation was below the RL
U Not detected at or above adjusted sample detection limit

2.1.1.2 QC Summary Data

Example 8260 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:

	Example
Ax = Area of the characteristic ion for the compound being measured:	3399156
Cis = Concentration of the specific internal standard (ug/mL)	25
Ais = Area of the characteristic ion of the specific internal standard	846471
Cx = Concentration of the compound in the standard being measured (ug/mL)	100
RF = Calculated Response Factor	**1.0039**

2.0 Calculating the concentration (C) of a compound in water using the average RF: *

Cx = [(Ax) (Cis) (Vn)(D)] / [(Ais) (RF) (Vs)]

where:

	Example
Ax = Area of the characteristic ion for the compound being measured	**3122498**
Cis = Concentration of the specific internal standard (ug/L)	**25**
D = Dilution factor for sample as a multiplier (10x = 10)	**1**
Ais = Area of the characteristic ion of the specific internal standard	**611048**
RF = Average RF from the ICAL	**1.004**
Vs = Purge volume of sample (mL)	**10**
Vn = Nominal purge volume of sample (mL) (10.0 mL)	**10**
Cx = Concentration of the compound in the sample being measured (ug/L)	**127.2428**

3.0 Calculating the concentration (C) of a compound in soil using the average RF: *

Cx = [(Ax) (Cis) (Wn)(D)] / [(Ais) (RF) (Ws)]

where:

	Example
Ax = Area of the characteristic ion for the compound being measured	**3122498**
Cis = Concentration of the specific internal standard (ug/L)	**25**
D = Dilution factor for sample as a multiplier (10x = 10)	**1**
Ais = Area of the characteristic ion of the specific internal standard	**611048**
RF = Average RF from the ICAL	**1.004**
Ws = Weight of sample purged (g)	**5**
Wn = Nominal purge weight (g) (5.0 g)	**5**
Cx = Concentration of the compound in the sample being measured (ug/L)	**127.2428**

Dry weight correction:

Percent solids (PCT_S)	**50**
Cd = (Cx) (100)/PCT_S	**254.4856**

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve = 0.213

b = intercept from curve = - 0.00642

Step 2: Calculate y from Quantitation Report

y = 86550/593147 = 0.1459

Step 3: Solve for x

x = (y - b)/m = [(0.1459 -(- 0.00642)]/ 0.213 = 0.7152

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.7152) = 17.88

Example Spreadsheet Calculation:

Slope from curve, m:	**0.213**
Intercept from curve, b:	**-0.00642**
Area of analyte, Ax:	**86550**
Area of Internal Standard , Ais:	**593147**
Concentration of IS, Cis	**25.00**
Response Ratio:	**0.145917**
Amount Ratio:	**0.715195**
Concentration:	**17.87988**
Units of Internal Standard:	**ug/L**

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**-0.00629**	
Value of B from plot:	**0.511**	
Value of C from plot:	**-0.0276**	
Area of unknown from quantitation report:	**293821**	
Area of IS from quantiation report:	**784848**	
Response ratio, y:	**0.374367**	
C - y:	**-0.40197**	
Root 1 - Computed amount ratio , X1:	**80.44567**	
Root 2 - Computed amount ratio , X2:	**0.794396**	use this solution
Concentration of IS, Cis:	**25.00**	
Concentration of analyte, Cx:	**19.86**	ug/L

00104594

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS10 Dataset: 050610
Analyst1: TMB Analyst2: MES
Method: 8260B SOP: MSV01 Rev: 14
Method: 624 SOP: MSV10 Rev: 8
Method: 5030C/5035A SOP: PAT01 Rev: 12
Maintenance Log ID: 32862

Internal Standard: STD38564 Surrogate Standard: STD38894
CCV: STD38633 LCS: STD38957 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG330671

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	10M79206	RINSE	NA	1	1		05/06/10 12:05
2	10M79207	RINSE	NA	1	1		05/06/10 16:25
3	10M79208	CCV	NA	1	1		05/06/10 16:58
4	10M79209	WG330671-01 50NG BFB STD 8260	NA	1	1	STD39008	05/06/10 17:22
5	10M79210	WG330671-02 5ug/L APPIX/FOO STD	NA	1	1	STD38633	05/06/10 17:48
6	10M79211	WG330671-03 20ug/L APPIX/FOO STD	NA	1	1	STD38633	05/06/10 18:21
7	10M79212	WG330671-04 50ug/L APPIX/FOO STD	NA	1	1	STD38633	05/06/10 18:54
8	10M79213	WG330671-05 100ug/L APPIX/FOO STD	NA	1	1	STD38633	05/06/10 19:26
9	10M79214	WG330671-06 200ug/L APPIX/FOO STD	NA	1	1	STD38633	05/06/10 19:59
10	10M79215	WG330671-07 300ug/L APPIX/FOO STD	NA	1	1	STD38633	05/06/10 20:32
11	10M79216	WG330671-08 400ug/L APPIX/FOO STD	NA	1	1	STD38633	05/06/10 21:05
12	10M79217	WG330671-09 500ug/L APPIX/FOO STD	NA	1	1	STD38633	05/06/10 21:37
13	10M79218	RINSE	NA	1	1		05/06/10 22:10
14	10M79219	WG330671-10 100ug/L APPIX/FOO ALT SC	NA	1	1	STD38957	05/06/10 22:43
15	10M79220	CCV	NA	1	1		05/06/10 23:16
16	10M79222	CCV	NA	1	1		05/06/10 23:49
17	10M79223	LCS	NA	1	1		05/07/10 00:22
18	10M79224	GRO STD	NA	1	1		05/07/10 00:55
19	10M79225	GRO STD	NA	1	1		05/07/10 01:28
20	10M79226	RINSE	NA	1	1		05/07/10 02:01
21	10M79227	RINSE	NA	1	1		05/07/10 02:34
22	10M79228	RINSE	NA	1	1		05/07/10 03:07
23	10M79229	RINSE	NA	1	1		05/07/10 03:40

Comments

Seq.	Rerun	Dil.	Reason	Analytes
3				
File ID: 10M79208				
			DNR, conditioning the trap.	
15				
File ID: 10M79220				
			Everything ran after this file. DNR, conditioning the trap.	

Approved: May 11, 2010

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00104595

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS10 Dataset: 080910
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 624 SOP: MSV10 Rev: 8
Method: 5030C/5035A SOP: PAT01 Rev: 12
Maintenance Log ID: 34095

Internal Standard: STD40608 Surrogate Standard: STD40607
CCV: NA LCS: STD40337 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG339237

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	10M81143	STD CHECK	NA	1	1		08/09/10 08:54
2	10M81144	rinse	NA	1	1		08/09/10 09:35
3	10M81145	rinse	NA	1	1		08/09/10 10:09
4	10M81146	WG339237-01 50ng BFB STD 8260	NA	1	1	STD40741	08/09/10 11:03
5	10M81147	WG339237-02 50ug/L CCV STD 8260	NA	1	1	STD40537	08/09/10 11:28
6	10M81148	WG339237-02 50ug/L CCV STD 8260	NA	1	1	STD40537	08/09/10 12:11
7	10M81149	WG339237-01 50ng BFB STD 8260	NA	1	1	STD40741	08/09/10 12:40
8	10M81150	WG339237-02 50ug/L CCV STD 8260	NA	1	1	STD40537	08/09/10 13:04
9	10M81151	RINSE	NA	1	1		08/09/10 13:36
10	10M81152	WG339237-01 50ng BFB STD 8260	NA	1	1	STD40741	08/09/10 14:45
11	10M81153	WG339237-02 0.3ug/L STD 8260	NA	1	1	STD40771	08/09/10 15:09
12	10M81154	WG339237-03 0.4ug/L STD 8260	NA	1	1	STD40771	08/09/10 15:40
13	10M81155	WG339237-04 1ug/L STD 8260	NA	1	1	STD40771	08/09/10 16:12
14	10M81156	WG339237-05 2ug/L STD 8260	NA	1	1	STD40771	08/09/10 16:43
15	10M81157	WG339237-04 1ug/L STD 8260	NA	1	1	STD40771	08/09/10 17:15
16	10M81158	WG339237-06 5ug/L STD 8260	NA	1	1	STD40771	08/09/10 17:46
17	10M81159	WG339237-07 20ug/L STD 8260	NA	1	1	STD40771	08/09/10 18:18
18	10M81160	WG339237-08 50ug/L STD 8260	NA	1	1	STD40771	08/09/10 18:49
19	10M81161	WG339237-09 100ug/L STD 8260	NA	1	1	STD40771	08/09/10 19:21
20	10M81162	WG339237-10 200ug/L STD 8260	NA	1	1	STD40771	08/09/10 19:53
21	10M81163	WG339237-11 300ug/L STD 8260	NA	1	1	STD40771	08/09/10 20:24
22	10M81164	RINSE	NA	1	1		08/09/10 20:56
23	10M81165	RINSE	NA	1	1		08/09/10 21:27
24	10M81166	WG339237-12 50ug/L ALT SRC STD 8260	NA	1	1	STD40337	08/09/10 21:59
25	10M81167	RINSE	NA	1	1		08/09/10 22:31
26	10M81168	L10070001-01 LOD 826-SPE	NA	1	1	STD40466	08/09/10 23:02
27	10M81169	L10070003-01 LOQ 826-SPE	NA	1	1	STD40466	08/09/10 23:34

Approved: August 12, 2010

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Microbac Laboratories Inc.

00104596

Instrument Run Log

Instrument: HPMS10 Dataset: 081310
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5030B/5035A SOP: PAT01 Rev: 12

Maintenance Log ID: 34162

Internal Standard: STD40608 Surrogate Standard: STD40607
CCV: STD4855 LCS: STD40816 MS/MSD: STD40816

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG339770

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	10M81269	L10080188-02 100X 826-SPE	NA	10	1	SCREEN	08/13/10 10:10
2	10M81270	L10080188-03 100X 826-SPE	NA	10	1	SCREEN	08/13/10 10:42
3	10M81271	WG339769-01 50ng BFB STD 8260	NA	1	1	STD40741	08/13/10 12:38
4	10M81272	WG339769-02 50ug/L CCV STD 8260	NA	1	1	STD40855	08/13/10 13:02
5	10M81273	WG339769-02 50ug/L CCV STD 8260	NA	1	1	STD40855	08/13/10 13:33
6	10M81274	RINSE	NA	1	1		08/13/10 14:05
7	10M81275	WG339770-01 VBLK0813 BLANK STD 826	NA	1	1		08/13/10 14:37
8	10M81276	WG339770-02 20ug/L LCS STD 8260	NA	1	1	STD40816	08/13/10 15:09
9	10M81277	WG339410-01 FBLK 10X STD 8260	NA	18	10		08/13/10 15:40
10	10M81278	L10080299-01 A 826-SPE	<2	1	1		08/13/10 16:12
11	10M81279	L10080251-08 A 50X 8260	NA	12	50		08/13/10 16:43
12	10M81280	L10080295-01 A 10X 826-TC-SPE	NA	17	10		08/13/10 17:15
13	10M81281	L10080320-01 A 826-SPE	<2	1	1		08/13/10 17:47
14	10M81282	L10080308-03 A 826-LOW	<2	1	1		08/13/10 18:19
15	10M81283	L10080320-07 A 826-SPE	<2	1	1		08/13/10 18:50
16	10M81284	L10080320-02 A 826-SPE	<2	1	1		08/13/10 19:22
20	10M81288	L10080303-05 A 826-SPE	<2	1	1		08/13/10 21:29
21	10M81289	L10080320-06 A 826-SPE	<2	1	1		08/13/10 22:00
22	10M81290	L10080309-01 A 826-SPE	<2	1	1		08/13/10 22:32
23	10M81291	L10080308-01 A 826-LOW	<2	1	1		08/13/10 23:04
24	10M81292	L10080308-02 A 826-LOW	<2	1	1		08/13/10 23:35
25	10M81293	L10080161-01 A 826-SPE	7	1	1		08/14/10 00:07
26	10M81294	L10080294-02 A 10X 826-TC	NA	17	10		08/14/10 00:38
27	10M81295	LCS2 CHECK	NA	1	1		08/14/10 01:10
28	10M81296	RINSE	NA	1	1		08/14/10 01:41
29	10M81297	RINSE	NA	1	1		08/14/10 02:13
30	10M81298	RINSE	NA	1	1		08/14/10 02:45
31	10M81299	RINSE	NA	1	1		08/14/10 03:16
32	10M81300	L10070751-01 A 826-REF-BLK	NA	1	1		08/14/10 03:48
33	10M81301	L10070751-02 A 826-REF-BLK	NA	1	1		08/14/10 04:20
34	10M81302	L10070751-03 A 826-REF-BLK	NA	1	1		08/14/10 04:51
35	10M81303	L10070751-04 B 826-REF-BLK	NA	1	1		08/14/10 05:23
36	10M81304	KETONES CHECK	NA	1	1		08/14/10 05:54
37	10M81305	SYSTEM CHECK	NA	1	1		08/14/10 06:26

Approved: August 16, 2010



Microbac

00104597

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS10 Dataset: 081310
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030C/5030B/5035A SOP: PAT01 Rev: 12

Maintenance Log ID: 34162

Internal Standard: STD40608 Surrogate Standard: STD40607
CCV: STD4855 LCS: STD40816 MS/MSD: STD40816

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG339770

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
38	10M81285	L10080320-03 A 826-SPE	NA	1	1		08/13/10 19:54
39	10M81286	L10080320-04 A MS 826-SPE	NA	1	1	STD40816	08/13/10 20:25
40	10M81287	L10080320-05 A MSD 826-SPE	NA	1	1	STD40816	08/13/10 20:57

Comments

Seq.	Rerun	Dil.	Reason	Analytes
1	X	5	Analyzed too dilute	
File ID: 10M81269				
DNR.				
2	X	5	Analyzed too dilute	
File ID: 10M81270				
DNR.				
4	X			
File ID: 10M81272				
Bromomethane was low, DNR.				
6	X	1	Carry-over contamination	
File ID: 10M81274				
Carry over from ccv, DNR.				
25	X	100	Over Calibration Range	STY
File ID: 10M81293				
32	X	1	Carry-over contamination	
File ID: 10M81300				
sty carry over, DNR.				
33	X	1	Carry-over contamination	
File ID: 10M81301				
sty carry over, DNR				
34	X	1	Carry-over contamination	
File ID: 10M81302				
sty carry over, DNR				
35	X	1	Carry-over contamination	
File ID: 10M81303				
sty carry over, DNR				

Approved: August 16, 2010

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Microbac Laboratories Inc.

Data Checklist

Date: 06-MAY-2010
Analyst: TMB
Analyst: MES
Method: 8260
Instrument: HPMS10
Curve Workgroup: NA
Runlog ID: 33972
Analytical Workgroups: WG330671

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	NA
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
07-MAY-2010

Tiffany Bailey

Secondary Reviewer:
11-MAY-2010

CHECKLIST1 - Modified 03/05/2008
Generated: MAY-11-2010 09:10:39

Microbac Laboratories Inc.

00104599

Data Checklist

Date: 09-AUG-2010
Analyst: TMB
Analyst: NA
Method: 8260B/624
Instrument: HPMS10
Curve Workgroup: NA
Runlog ID: 35748
Analytical Workgroups: WG339237; WG339379

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
10-AUG-2010

Tiffany Bailey

Secondary Reviewer:
12-AUG-2010

CHECKLIST1 - Modified 03/05/2008
Generated: AUG-12-2010 09:03:48

Microbac Laboratories Inc.

00104600

Data Checklist

Date: 13-AUG-2010
Analyst: TMB
Analyst: NA
Method: 8260B
Instrument: HPMS10
Curve Workgroup: NA
Runlog ID: 35836
Analytical Workgroups: WG339770

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
16-AUG-2010
Tiffany Bailey

Secondary Reviewer:
16-AUG-2010

CHECKLIST1 - Modified 03/05/2008
Generated: AUG-16-2010 12:58:34

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

00104601

Analytical Method: 8260B AAB#: WG339770

Login Number: L10080308

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
47DPT04	01	08/12/10							14		08/13/10	1.6	14	
47DPT02	02	08/12/10							14		08/13/10	1.6	14	
TRIP BLANK	03	08/12/10							14		08/13/10	1.8	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1753457
Report generated 08/16/2010 09:11

Login Number: L10080308
Instrument Id: HPMS10
Workgroup (AAB#): WG339770

Method: 8260
CAL ID: HPMS10-09-AUG-10
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L10080308-01	1.00	01	121	113	108	104
L10080308-02	1.00	01	123	116	108	105
L10080308-03	1.00	01	115	112	110	103
WG339770-01	1.00	01	104	108	103	104
WG339770-02	1.00	01	105	110	107	103

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	80	-	120
2 - Dibromofluoromethane	86	-	118
3 - 4-Bromofluorobenzene	86	-	115
4 - Toluene-d8	88	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1753465
Report generated: 08/16/2010 09:11

METHOD BLANK SUMMARY

Login Number: L10080308
Work Group: WG339770
Blank File ID: 10M81275
Blank Sample ID: WG339770-01
Prep Date: 08/13/10 14:37
Instrument ID: HPMS10
Analyzed Date: 08/13/10 14:37
Method: 8260B
Analyst: TMB

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG339770-02	10M81276	08/13/10 15:09	01
TRIP BLANK	L10080308-03	10M81282	08/13/10 18:19	01
47DPT04	L10080308-01	10M81291	08/13/10 23:04	01
47DPT02	L10080308-02	10M81292	08/13/10 23:35	01

Report Name: BLANK_SUMMARY
PDF File ID: 1753458
Report generated 08/16/2010 09:11

Microbac Laboratories Inc.

METHOD BLANK REPORT

00104604

Login Number:L10080308 Prep Date:08/13/10 14:37 Sample ID:WG339770-01
Instrument ID:HPMS10 Run Date:08/13/10 14:37 Prep Method:5030B/5030C/503
File ID:10M81275 Analyst:TMB Method:8260B
Workgroup (AAB#):WG339770 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID:HPMS10-09-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.500	1.00	0.500	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name:BLANK
PDF ID: 1753459
16-AUG-2010 09:11

Login Number:L10080308 Prep Date:08/13/10 14:37 Sample ID:WG339770-01
Instrument ID:HPMS10 Run Date:08/13/10 14:37 Prep Method:5030B/5030C/503
File ID:10M81275 Analyst:TMB Method:8260B
Workgroup (AAB#):WG339770 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID:HPMS10-09-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.200	1.00	0.200	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	108	86 - 118	PASS
1,2-Dichloroethane-d4	104	80 - 120	PASS
Toluene-d8	104	88 - 110	PASS
4-Bromofluorobenzene	103	86 - 115	PASS

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1753459
16-AUG-2010 09:11

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

00104606

Login Number: L10080308 Run Date: 08/13/2010 Sample ID: WG339770-02
Instrument ID: HPMS10 Run Time: 15:09 Prep Method: 5030B/5030C/503
File ID: 10M81276 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG339770 Matrix: Water Units: ug/L
QC Key: STD Lot#: STD40816 Cal ID: HPMS10-09-AUG-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acetone	20.0	20.1	100	40 - 180	
Benzene	20.0	19.7	98.3	80 - 121	
Bromobenzene	20.0	20.7	104	80 - 120	
Bromochloromethane	20.0	21.5	108	65 - 130	
Bromodichloromethane	20.0	23.6	118	80 - 131	
Bromoform	20.0	22.3	111	70 - 130	
Bromomethane	20.0	17.2	86.1	30 - 145	
2-Butanone	20.0	18.1	90.5	10 - 170	
n-Butylbenzene	20.0	21.4	107	80 - 131	
sec-Butylbenzene	20.0	21.1	105	80 - 127	
tert-Butylbenzene	20.0	21.1	106	80 - 126	
Carbon disulfide	20.0	17.0	85.1	58 - 128	
Carbon tetrachloride	20.0	25.0	125	65 - 140	
Chlorobenzene	20.0	20.1	101	80 - 120	
Chlorodibromomethane	20.0	23.1	115	60 - 135	
Chloroethane	20.0	19.4	96.9	60 - 135	
2-Chloroethyl vinyl ether	20.0	19.1	95.3	45 - 160	
Chloroform	20.0	21.8	109	80 - 125	
Chloromethane	20.0	15.2	76.2	40 - 125	
2-Chlorotoluene	20.0	20.7	104	80 - 127	
4-Chlorotoluene	20.0	21.5	108	80 - 126	
1,2-Dibromo-3-chloropropane	20.0	19.8	98.9	50 - 130	
1,2-Dibromoethane	20.0	20.4	102	80 - 129	
Dibromomethane	20.0	21.3	107	75 - 125	
1,2-Dichlorobenzene	20.0	20.4	102	80 - 125	
1,3-Dichlorobenzene	20.0	20.4	102	80 - 120	
1,4-Dichlorobenzene	20.0	19.7	98.4	80 - 120	
Dichlorodifluoromethane	20.0	10.9	54.6	40 - 160	
1,1-Dichloroethane	20.0	21.3	106	80 - 125	
1,2-Dichloroethane	20.0	22.5	112	80 - 129	
1,1-Dichloroethene	20.0	19.8	98.8	80 - 132	
cis-1,2-Dichloroethene	20.0	21.2	106	70 - 125	
trans-1,2-Dichloroethene	20.0	21.0	105	80 - 127	
1,2-Dichloropropane	20.0	20.2	101	80 - 120	
1,3-Dichloropropane	20.0	20.2	101	80 - 120	
2,2-Dichloropropane	20.0	22.3	111	80 - 133	
cis-1,3-Dichloropropene	20.0	21.2	106	70 - 130	
trans-1,3-Dichloropropene	20.0	19.2	96.0	80 - 130	
1,1-Dichloropropene	20.0	20.8	104	75 - 130	
Ethylbenzene	20.0	20.3	101	80 - 122	
2-Hexanone	20.0	17.3	86.4	55 - 130	

LCS - Modified 03/06/2008
PDF File ID: 1753418
Report generated: 08/16/2010 09:11

Login Number: L10080308 Run Date: 08/13/2010 Sample ID: WG339770-02
Instrument ID: HPMS10 Run Time: 15:09 Prep Method: 5030B/5030C/503
File ID: 10M81276 Analyst: TMB Method: 8260B
Workgroup (AAB#): WG339770 Matrix: Water Units: ug/L
QC Key: STD Lot#: STD40816 Cal ID: HPMS10-09-AUG-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Hexachlorobutadiene	20.0	24.7	123	72 - 132	
Isopropylbenzene	20.0	19.2	96.2	80 - 122	
p-Isopropyltoluene	20.0	21.2	106	80 - 122	
4-Methyl-2-pentanone	20.0	19.0	94.9	64 - 140	
Methylene chloride	20.0	19.8	99.1	80 - 123	
Naphthalene	20.0	20.3	102	59 - 149	
n-Propylbenzene	20.0	20.7	104	80 - 129	
Styrene	20.0	20.9	104	80 - 123	
1,1,1,2-Tetrachloroethane	20.0	21.5	108	80 - 130	
1,1,2,2-Tetrachloroethane	20.0	20.0	100	79 - 125	
Tetrachloroethene	20.0	21.1	106	80 - 124	
Toluene	20.0	20.1	101	80 - 124	
1,2,3-Trichlorobenzene	20.0	20.2	101	55 - 140	
1,2,4-Trichlorobenzene	20.0	20.4	102	65 - 135	
1,1,1-Trichloroethane	20.0	24.3	122	80 - 134	
1,1,2-Trichloroethane	20.0	20.3	101	80 - 125	
Trichloroethene	20.0	21.7	109	80 - 122	
Trichlorofluoromethane	20.0	23.1	116	62 - 151	
1,2,3-Trichloropropane	20.0	21.5	108	75 - 125	
1,2,4-Trimethylbenzene	20.0	21.6	108	80 - 125	
1,3,5-Trimethylbenzene	20.0	21.8	109	80 - 127	
Vinyl acetate	20.0	13.2	65.8	10 - 190	
Vinyl chloride	20.0	19.2	95.8	50 - 170	
o-Xylene	20.0	20.1	101	80 - 122	
m-,p-Xylene	40.0	41.2	103	80 - 122	

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	110	86 - 118	PASS
1,2-Dichloroethane-d4	105	80 - 120	PASS
Toluene-d8	103	88 - 110	PASS
4-Bromofluorobenzene	107	86 - 115	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1753418
Report generated: 08/16/2010 09:11

BFB

Login Number: L10080308
Instrument: HPMS10
Analyst: TMB
Workgroup: WG339237

Tune ID: WG339237-01
Run Date: 08/09/2010
Run Time: 14:45
File ID: 10M81152
Cal ID: HPMS10-09-AUG-10

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	28.1	34937	PASS
75.0	95.0	30.0	60.0	49.6	61642	PASS
95.0	95.0	100	100	100	124232	PASS
96.0	95.0	5.00	9.00	6.86	8517	PASS
173	174	0	2.00	0.818	840	PASS
174	95.0	50.0	100	82.6	102658	PASS
175	174	5.00	9.00	7.78	7988	PASS
176	174	95.0	101	98.8	101376	PASS
177	176	5.00	9.00	6.51	6595	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG339237-02	STD	01	08/09/2010 15:09	
WG339237-03	STD	01	08/09/2010 15:40	
WG339237-05	STD	01	08/09/2010 16:43	
WG339237-04	STD	01	08/09/2010 17:15	
WG339237-06	STD	01	08/09/2010 17:46	
WG339237-07	STD	01	08/09/2010 18:18	
WG339237-08	STD-CCV	01	08/09/2010 18:49	
WG339237-09	STD	01	08/09/2010 19:21	
WG339237-10	STD	01	08/09/2010 19:53	
WG339237-11	STD	01	08/09/2010 20:24	
WG339237-12	SSCV	01	08/09/2010 21:59	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1753462
Report generated 08/16/2010 09:11

BFB

Login Number: L10080308
Instrument: HPMS10
Analyst: TMB
Workgroup: WG339769

Tune ID: WG339769-01
Run Date: 08/13/2010
Run Time: 12:38
File ID: 10M81271
Cal ID: HPMS10-09-AUG-10

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	27.8	46240	PASS
75.0	95.0	30.0	60.0	54.7	90776	PASS
95.0	95.0	100	100	100	166066	PASS
96.0	95.0	5.00	9.00	7.12	11826	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	75.0	124626	PASS
175	174	5.00	9.00	8.36	10423	PASS
176	174	95.0	101	96.0	119672	PASS
177	176	5.00	9.00	7.54	9021	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG339769-02	CCV	01	08/13/2010 13:33	
WG339770-01	BLANK	01	08/13/2010 14:37	
WG339770-02	LCS	01	08/13/2010 15:09	
WG339410-01	FBLK	DL01	08/13/2010 15:40	
L10080308-03	TRIP BLANK	01	08/13/2010 18:19	
WG339770-03	REF	01	08/13/2010 19:54	
WG339770-04	MS	01	08/13/2010 20:25	
WG339770-05	MSD	01	08/13/2010 20:57	
L10080308-01	47DPT04	01	08/13/2010 23:04	
L10080308-02	47DPT02	01	08/13/2010 23:35	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 1753462
Report generated 08/16/2010 09:11

Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

00104610

Login Number: L10080308
Analytical Method: 8260B
ICAL Workgroup: WG339237

Instrument ID: HPMS10
Initial Calibration Date: 09-AUG-10 20:24
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD (R^2)
1,1-Dichloroethene	CCC	0.2553	9.22		
1,2-Dichloropropane	CCC	0.4250	4.00		
Chloroform	CCC	0.5879	5.09		
Ethylbenzene	CCC	0.5819	6.10		
Toluene	CCC	1.638	4.43		
Vinyl Chloride	CCC	0.4068	8.65		
1,1,2,2-Tetrachloroethane	SPCC	0.5858	7.02		
1,1-Dichloroethane	SPCC	0.7409	5.32		
Bromoform	SPCC	0.2212	12.7		
Chlorobenzene	SPCC	1.083	4.35		
Chloromethane	SPCC	0.5244	9.39		
1,1,1,2-Tetrachloroethane		0.4170	5.77		
1,1,1-Trichloroethane		0.5091	10.7		
1,1,2-Trichloroethane		0.2736	8.55		
1,1-Dichloropropene		0.4293	5.04		
1,2,3-Trichlorobenzene		1.020	9.49		
1,2,3-Trichloropropane		0.1870	8.03		
1,2,4-Trichlorobenzene		1.177	8.15		
1,2,4-Trimethylbenzene		2.993	5.18		
1,2-Dibromo-3-Chloropropane		0.1249	10.7		
1,2-Dibromoethane		0.2883	6.33		
1,2-Dichlorobenzene		1.551	6.93		
1,2-Dichloroethane		0.5214	6.98		
1,3,5-Trimethylbenzene		2.922	5.33		
1,3-Dichlorobenzene		1.681	3.82		
1,3-Dichloropropane		0.5032	5.01		
1,4-Dichlorobenzene		1.769	9.54		
2,2-Dichloropropane		0.4976	5.32		
2-Butanone		0.1489	7.28		
2-Chloroethyl Vinyl Ether		0.1980	4.92		
2-Chlorotoluene		2.715	3.44		
2-Hexanone		0.2886	7.31		
4-Chlorotoluene		2.581	5.19		
4-Methyl-2-Pentanone		0.1177	3.90		
Acetone		0.09262	10.3		
Benzene		1.190	6.47		
Bromobenzene		0.8851	7.73		
Bromochloromethane		0.1396	5.85		
Bromodichloromethane		0.4146	8.64		
Bromomethane		0.2250	14.6		
Carbon Disulfide		0.8765	6.32		
Carbon Tetrachloride		0.4531	10.9		
Chloroethane		0.2344	5.03		
Dibromochloromethane		0.3621	11.5		
Dibromomethane		0.1602	7.45		

INT_CAL - Modified 03/06/2008
PDF File ID: 1753460
Report generated 08/16/2010 09:11

Microbac Laboratories Inc.
INITIAL CALIBRATION SUMMARY

00104611

Login Number: L10080308
Analytical Method: 8260B
ICAL Workgroup: WG339237

Instrument ID: HPMS10
Initial Calibration Date: 09-AUG-10 20:24
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD (R^2)
Dichlorodifluoromethane		0.4033	6.38		
Hexachlorobutadiene		0.4736	8.84		
Isopropylbenzene		1.778	5.63		
Methylene Chloride		0.3009	4.78		
Naphthalene		2.085	7.66		
Styrene		1.126	6.84		
Tetrachloroethene		0.3223	6.02		
Trichloroethene		0.3139	5.52		
Trichlorofluoromethane		0.5138	10.1		
Vinyl Acetate		0.5153	10.6		
cis-1,2-Dichloroethene		0.3219	5.93		
cis-1,3-Dichloropropene		0.4594	8.64		
m-,p-Xylene		0.6872	5.27		
n-Butylbenzene		2.912	4.50		
n-Propylbenzene		4.143	4.74		
o-Xylene		0.6872	5.37		
p-Isopropyltoluene		3.019	4.94		
sec-Butylbenzene		3.595	3.72		
tert-Butylbenzene		0.5742	6.24		
trans-1,2-Dichloroethene		0.2889	4.70		
trans-1,3-Dichloropropene		0.5504	7.62		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

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Login Number: L10080308 **Instrument ID:** HPMS10
Analytical Method: 8260B **Initial Calibration Date:** 09-AUG-10 20:24
Column ID: F

Analyte	WG339237-02			WG339237-03			WG339237-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	0.400	2600.00000	0.2113	1.00	6758.00000	0.2262
1,2-Dichloropropane	NA	NA	NA	0.400	5135.00000	0.4174	1.00	12062.0000	0.4038
Chloroform	0.300	5693.00000	0.5946	0.400	7520.00000	0.6112	1.00	15453.0000	0.5173
Ethylbenzene	NA	NA	NA	0.400	5915.00000	0.6460	1.00	11665.0000	0.5259
Toluene	NA	NA	NA	0.400	15512.0000	1.694	1.00	35544.0000	1.602
Vinyl Chloride	NA	NA	NA	0.400	5864.00000	0.4766	1.00	11239.0000	0.3762
1,1,2,2-Tetrachloroethane	NA	NA	NA	0.400	2651.00000	0.5590	1.00	5821.00000	0.5119
1,1-Dichloroethane	NA	NA	NA	0.400	8831.00000	0.7178	1.00	20230.0000	0.6772
Bromoform	NA	NA	NA	NA	NA	NA	1.00	4027.00000	0.1815
Chlorobenzene	NA	NA	NA	0.400	10501.0000	1.147	1.00	22947.0000	1.035
Chloromethane	NA	NA	NA	NA	NA	NA	1.00	13438.0000	0.4498
1,1,1,2-Tetrachloroethane	NA	NA	NA	0.400	4072.00000	0.4447	1.00	8240.00000	0.3715
1,1,1-Trichloroethane	NA	NA	NA	0.400	5007.00000	0.4070	1.00	13547.0000	0.4535
1,1,2-Trichloroethane	NA	NA	NA	0.400	2096.00000	0.2289	1.00	5774.00000	0.2603
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	1.00	11607.0000	0.3885
1,2,3-Trichlorobenzene	0.300	4487.00000	1.243	0.400	4964.00000	1.047	1.00	10136.0000	0.8914
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	1.00	1758.00000	0.1546
1,2,4-Trichlorobenzene	NA	NA	NA	0.400	6278.00000	1.324	1.00	11180.0000	0.9832
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	1.00	31169.0000	2.741
1,2-Dibromo-3-Chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	0.400	2637.00000	0.2880	1.00	5621.00000	0.2534
1,2-Dichlorobenzene	0.300	6501.00000	1.801	0.400	7496.00000	1.581	1.00	16302.0000	1.434
1,2-Dichloroethane	NA	NA	NA	0.400	6162.00000	0.5008	1.00	13564.0000	0.4540
1,3,5-Trimethylbenzene	NA	NA	NA	0.400	14123.0000	2.978	1.00	29570.0000	2.601
1,3-Dichlorobenzene	NA	NA	NA	0.400	8482.00000	1.789	1.00	18757.0000	1.650
1,3-Dichloropropane	NA	NA	NA	0.400	4435.00000	0.4844	1.00	10259.0000	0.4625
1,4-Dichlorobenzene	0.300	7732.00000	2.142	0.400	9064.00000	1.911	1.00	18071.0000	1.589
2,2-Dichloropropane	NA	NA	NA	0.400	5973.00000	0.4855	1.00	13337.0000	0.4464
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl Vinyl Ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	0.400	12736.0000	2.685	1.00	29535.0000	2.597
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	NA	NA	NA	0.400	12982.0000	2.737	1.00	27082.0000	2.382
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	0.400	16593.0000	1.349	1.00	33770.0000	1.130
Bromobenzene	0.300	3729.00000	1.033	0.400	4020.00000	0.8476	1.00	8861.00000	0.7793
Bromochloromethane	NA	NA	NA	0.400	1519.00000	0.1235	1.00	4016.00000	0.1344
Bromodichloromethane	NA	NA	NA	0.400	5288.00000	0.4298	1.00	10113.0000	0.3385
Bromomethane	NA	NA	NA	NA	NA	NA	1.00	7168.00000	0.2399
Carbon Disulfide	NA	NA	NA	NA	NA	NA	1.00	22888.0000	0.7661
Carbon Tetrachloride	NA	NA	NA	0.400	4351.00000	0.3536	1.00	12441.0000	0.4164

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Login Number: L10080308 **Instrument ID:** HPMS10
Analytical Method: 8260B **Initial Calibration Date:** 09-AUG-10 20:24
Column ID: F

Analyte	WG339237-05			WG339237-06			WG339237-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	2.00	15584.0000	0.2583	5.00	38864.0000	0.2641	20.0	159306.000	0.2756
1,2-Dichloropropane	2.00	24692.0000	0.4093	5.00	64706.0000	0.4396	20.0	260214.000	0.4502
Chloroform	2.00	34192.0000	0.5668	5.00	89234.0000	0.6063	20.0	352542.000	0.6099
Ethylbenzene	2.00	25500.0000	0.5676	5.00	65639.0000	0.5931	20.0	263712.000	0.5989
Toluene	2.00	74692.0000	1.663	5.00	189413.000	1.711	20.0	749737.000	1.703
Vinyl Chloride	2.00	25681.0000	0.4257	5.00	60772.0000	0.4129	20.0	241237.000	0.4173
1,1,2,2-Tetrachloroethane	2.00	13030.0000	0.5627	5.00	37127.0000	0.6440	20.0	145136.000	0.6183
1,1-Dichloroethane	2.00	42501.0000	0.7045	5.00	112927.000	0.7673	20.0	457944.000	0.7922
Bromoform	2.00	8138.00000	0.1811	5.00	24520.0000	0.2215	20.0	106208.000	0.2412
Chlorobenzene	2.00	48976.0000	1.090	5.00	124444.000	1.124	20.0	490642.000	1.114
Chloromethane	2.00	28976.0000	0.4803	5.00	74667.0000	0.5073	20.0	306847.000	0.5308
1,1,1,2-Tetrachloroethane	2.00	17591.0000	0.3915	5.00	47256.0000	0.4270	20.0	191504.000	0.4349
1,1,1-Trichloroethane	2.00	29297.0000	0.4856	5.00	79859.0000	0.5426	20.0	315296.000	0.5455
1,1,2-Trichloroethane	2.00	12246.0000	0.2726	5.00	33761.0000	0.3050	20.0	129719.000	0.2946
1,1-Dichloropropene	2.00	24866.0000	0.4122	5.00	64099.0000	0.4355	20.0	257178.000	0.4449
1,2,3-Trichlorobenzene	2.00	21693.0000	0.9369	5.00	57711.0000	1.001	20.0	240403.000	1.024
1,2,3-Trichloropropane	2.00	4245.00000	0.1833	5.00	11040.0000	0.1915	20.0	46656.0000	0.1988
1,2,4-Trichlorobenzene	2.00	26327.0000	1.137	5.00	66802.0000	1.159	20.0	286209.000	1.219
1,2,4-Trimethylbenzene	2.00	66475.0000	2.871	5.00	181842.000	3.154	20.0	735802.000	3.135
1,2-Dibromo-3-Chloropropane	2.00	2288.00000	0.09880	5.00	7069.00000	0.1226	20.0	30660.0000	0.1306
1,2-Dibromoethane	2.00	12080.0000	0.2689	5.00	33158.0000	0.2996	20.0	134909.000	0.3064
1,2-Dichlorobenzene	2.00	34373.0000	1.485	5.00	89504.0000	1.552	20.0	371587.000	1.583
1,2-Dichloroethane	2.00	29746.0000	0.4931	5.00	81018.0000	0.5505	20.0	326065.000	0.5641
1,3,5-Trimethylbenzene	2.00	65003.0000	2.807	5.00	172342.000	2.989	20.0	723534.000	3.083
1,3-Dichlorobenzene	2.00	37288.0000	1.610	5.00	99006.0000	1.717	20.0	406488.000	1.732
1,3-Dichloropropane	2.00	22342.0000	0.4973	5.00	59230.0000	0.5352	20.0	234964.000	0.5336
1,4-Dichlorobenzene	2.00	39446.0000	1.704	5.00	102707.000	1.781	20.0	415128.000	1.769
2,2-Dichloropropane	2.00	31239.0000	0.5178	5.00	78816.0000	0.5355	20.0	294585.000	0.5096
2-Butanone	NA	NA	NA	5.00	23039.0000	0.1565	20.0	93065.0000	0.1610
2-Chloroethyl Vinyl Ether	NA	NA	NA	5.00	28418.0000	0.1931	20.0	118752.000	0.2054
2-Chlorotoluene	2.00	61417.0000	2.653	5.00	160710.000	2.788	20.0	648470.000	2.763
2-Hexanone	NA	NA	NA	5.00	33043.0000	0.2986	20.0	138394.000	0.3143
4-Chlorotoluene	2.00	59863.0000	2.585	5.00	155844.000	2.703	20.0	641294.000	2.732
4-Methyl-2-Pentanone	NA	NA	NA	5.00	16377.0000	0.1113	20.0	70680.0000	0.1223
Acetone	NA	NA	NA	5.00	14363.0000	0.09760	20.0	57484.0000	0.09940
Benzene	2.00	68925.0000	1.143	5.00	180287.000	1.225	20.0	705239.000	1.220
Bromobenzene	2.00	19740.0000	0.8525	5.00	50973.0000	0.8841	20.0	215086.000	0.9163
Bromochloromethane	2.00	8234.00000	0.1365	5.00	20493.0000	0.1392	20.0	86204.0000	0.1491
Bromodichloromethane	2.00	23089.0000	0.3827	5.00	61943.0000	0.4209	20.0	252920.000	0.4375
Bromomethane	2.00	16536.0000	0.2741	5.00	38120.0000	0.2590	20.0	123413.000	0.2135
Carbon Disulfide	2.00	54860.0000	0.9093	5.00	131375.000	0.8926	20.0	537002.000	0.9290
Carbon Tetrachloride	2.00	26025.0000	0.4314	5.00	69425.0000	0.4717	20.0	280668.000	0.4855

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Analytical Method: 8260B
Instrument ID: HPMS10
Initial Calibration Date: 09-AUG-10 20:24
Column ID: F

Analyte	WG339237-08			WG339237-09			WG339237-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	50.0	405724.000	0.2738	100	746649.000	0.2644	200	1542061.00	0.2684
1,2-Dichloropropane	50.0	656368.000	0.4430	100	1185276.00	0.4197	200	2396596.00	0.4171
Chloroform	50.0	896089.000	0.6047	100	1672131.00	0.5921	200	3380592.00	0.5883
Ethylbenzene	50.0	681946.000	0.5974	100	1237523.00	0.5616	200	2499074.00	0.5643
Toluene	50.0	1893613.00	1.659	100	3417573.00	1.551	200	6726434.00	1.519
Vinyl Chloride	50.0	585097.000	0.3949	100	1091196.00	0.3864	200	2094335.00	0.3645
1,1,2,2-Tetrachloroethane	50.0	365634.000	0.6117	100	661091.000	0.5900	200	1342143.00	0.5888
1,1-Dichloroethane	50.0	1157269.00	0.7810	100	2098444.00	0.7431	200	4276033.00	0.7441
Bromoform	50.0	276320.000	0.2421	100	527512.000	0.2394	200	1068999.00	0.2414
Chlorobenzene	50.0	1255108.00	1.100	100	2280845.00	1.035	200	4522704.00	1.021
Chloromethane	50.0	800845.000	0.5405	100	1651778.00	0.5849	200	3316756.00	0.5772
1,1,1,2-Tetrachloroethane	50.0	488824.000	0.4282	100	918119.000	0.4167	200	1867838.00	0.4217
1,1,1-Trichloroethane	50.0	815205.000	0.5502	100	1521944.00	0.5389	200	3157752.00	0.5495
1,1,2-Trichloroethane	50.0	328263.000	0.2876	100	596948.000	0.2709	200	1191115.00	0.2689
1,1-Dichloropropene	50.0	667001.000	0.4501	100	1223636.00	0.4333	200	2530888.00	0.4404
1,2,3-Trichlorobenzene	50.0	608817.000	1.019	100	1144765.00	1.022	200	2263170.00	0.9929
1,2,3-Trichloropropane	50.0	116498.000	0.1949	100	215493.000	0.1923	200	440574.000	0.1933
1,2,4-Trichlorobenzene	50.0	711210.000	1.190	100	1359103.00	1.213	200	2709476.00	1.189
1,2,4-Trimethylbenzene	50.0	1845070.00	3.087	100	3424554.00	3.056	200	6631824.00	2.909
1,2-Dibromo-3-Chloropropane	50.0	79292.0000	0.1326	100	148624.000	0.1326	200	301217.000	0.1321
1,2-Dibromoethane	50.0	346257.000	0.3033	100	646116.000	0.2932	200	1301646.00	0.2939
1,2-Dichlorobenzene	50.0	922105.000	1.543	100	1707948.00	1.524	200	3315453.00	1.455
1,2-Dichloroethane	50.0	809030.000	0.5460	100	1511858.00	0.5354	200	3030591.00	0.5274
1,3,5-Trimethylbenzene	50.0	1811288.00	3.030	100	3364298.00	3.003	200	6576228.00	2.885
1,3-Dichlorobenzene	50.0	1010540.00	1.691	100	1858521.00	1.659	200	3642958.00	1.598
1,3-Dichloropropane	50.0	594710.000	0.5210	100	1099793.00	0.4991	200	2179852.00	0.4922
1,4-Dichlorobenzene	50.0	1025665.00	1.716	100	1897909.00	1.694	200	3681713.00	1.615
2,2-Dichloropropane	50.0	730771.000	0.4932	100	1378826.00	0.4883	200	2900549.00	0.5048
2-Butanone	50.0	231332.000	0.1561	100	415242.000	0.1470	200	798301.000	0.1389
2-Chloroethyl Vinyl Ether	50.0	311897.000	0.2105	100	544802.000	0.1929	200	1057233.00	0.1840
2-Chlorotoluene	50.0	1717088.00	2.873	100	3075212.00	2.745	200	5968729.00	2.619
2-Hexanone	50.0	348733.000	0.3055	100	622569.000	0.2825	200	1199922.00	0.2709
4-Chlorotoluene	50.0	1487817.00	2.489	100	2866004.00	2.558	200	5609040.00	2.461
4-Methyl-2-Pentanone	50.0	182442.000	0.1231	100	336054.000	0.1190	200	664633.000	0.1157
Acetone	50.0	150245.000	0.1014	100	260483.000	0.09220	200	515294.000	0.08970
Benzene	50.0	1774501.00	1.198	100	3229004.00	1.143	200	6386738.00	1.111
Bromobenzene	50.0	541184.000	0.9054	100	993314.000	0.8865	200	1962623.00	0.8610
Bromochloromethane	50.0	215792.000	0.1456	100	405925.000	0.1437	200	831334.000	0.1447
Bromodichloromethane	50.0	651786.000	0.4399	100	1226552.00	0.4343	200	2489311.00	0.4332
Bromomethane	50.0	292019.000	0.1971	100	555789.000	0.1968	200	1116762.00	0.1943
Carbon Disulfide	50.0	1353192.00	0.9132	100	2475619.00	0.8766	200	4876314.00	0.8486
Carbon Tetrachloride	50.0	723084.000	0.4880	100	1359390.00	0.4814	200	2854307.00	0.4967

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Login Number: L10080308 **Instrument ID:** HPMS10
Analytical Method: 8260B **Initial Calibration Date:** 09-AUG-10 20:24
Column ID: F

Analyte	WG339237-11		
	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA
Chloroform	NA	NA	NA
Ethylbenzene	NA	NA	NA
Toluene	NA	NA	NA
Vinyl Chloride	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA
Bromoform	NA	NA	NA
Chlorobenzene	NA	NA	NA
Chloromethane	NA	NA	NA
1,1,1,2-Tetrachloroethane	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA
1,2-Dibromo-3-Chloropropane	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA
2-Butanone	300	1166603.00	0.1338
2-Chloroethyl Vinyl Ether	300	1761920.00	0.2021
2-Chlorotoluene	NA	NA	NA
2-Hexanone	300	1731107.00	0.2597
4-Chlorotoluene	NA	NA	NA
4-Methyl-2-Pentanone	300	1001629.00	0.1149
Acetone	300	657392.000	0.07540
Benzene	NA	NA	NA
Bromobenzene	NA	NA	NA
Bromochloromethane	NA	NA	NA
Bromodichloromethane	NA	NA	NA
Bromomethane	NA	NA	NA
Carbon Disulfide	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA

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Login Number: L10080308 **Instrument ID:** HPMS10
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Column ID: F

Analyte	WG339237-02			WG339237-03			WG339237-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloroethane	NA	NA	NA	NA	NA	NA	1.00	7164.00000	0.2398
Dibromochloromethane	NA	NA	NA	0.400	3132.00000	0.3421	1.00	6120.00000	0.2759
Dibromomethane	NA	NA	NA	0.400	1826.00000	0.1484	1.00	4206.00000	0.1408
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	1.00	10728.0000	0.3591
Hexachlorobutadiene	NA	NA	NA	0.400	2045.00000	0.4312	1.00	4624.00000	0.4067
Isopropylbenzene	NA	NA	NA	0.400	16463.0000	1.798	1.00	35419.0000	1.597
Methylene Chloride	NA	NA	NA	NA	NA	NA	1.00	9156.00000	0.3065
Naphthalene	NA	NA	NA	0.400	11070.0000	2.334	1.00	21303.0000	1.874
Styrene	NA	NA	NA	0.400	9791.00000	1.069	1.00	21733.0000	0.9798
Tetrachloroethene	NA	NA	NA	0.400	2675.00000	0.2921	1.00	6589.00000	0.2971
Trichloroethene	NA	NA	NA	0.400	3654.00000	0.2970	1.00	8389.00000	0.2808
Trichlorofluoromethane	NA	NA	NA	0.400	4912.00000	0.3992	1.00	14431.0000	0.4830
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	0.400	3649.00000	0.2966	1.00	8676.00000	0.2904
cis-1,3-Dichloropropene	NA	NA	NA	0.400	5254.00000	0.4270	1.00	11426.0000	0.3825
m-,p-Xylene	NA	NA	NA	0.800	12424.0000	0.6784	2.00	28090.0000	0.6332
n-Butylbenzene	NA	NA	NA	NA	NA	NA	1.00	30470.0000	2.680
n-Propylbenzene	NA	NA	NA	0.400	19438.0000	4.099	1.00	44378.0000	3.903
o-Xylene	NA	NA	NA	NA	NA	NA	1.00	14106.0000	0.6359
p-Isopropyltoluene	NA	NA	NA	NA	NA	NA	1.00	31781.0000	2.795
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	1.00	40119.0000	3.528
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	1.00	5790.00000	0.5092
trans-1,2-Dichloroethene	NA	NA	NA	0.400	3579.00000	0.2909	1.00	8350.00000	0.2795
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	1.00	10534.0000	0.4749

INT_CAL - Modified 03/06/2008
PDF File ID: 1753460
Report generated 08/16/2010 09:11

Login Number: L10080308 **Instrument ID:** HPMS10
Analytical Method: 8260B **Initial Calibration Date:** 09-AUG-10 20:24
Column ID: F

Analyte	WG339237-05			WG339237-06			WG339237-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloroethane	2.00	14458.0000	0.2397	5.00	36176.0000	0.2458	20.0	142690.000	0.2468
Dibromochloromethane	2.00	15326.0000	0.3411	5.00	41052.0000	0.3709	20.0	176111.000	0.4000
Dibromomethane	2.00	9085.00000	0.1506	5.00	24281.0000	0.1650	20.0	100910.000	0.1746
Dichlorodifluoromethane	2.00	24686.0000	0.4092	5.00	61953.0000	0.4209	20.0	251638.000	0.4353
Hexachlorobutadiene	2.00	10346.0000	0.4468	5.00	27348.0000	0.4743	20.0	115274.000	0.4911
Isopropylbenzene	2.00	80761.0000	1.798	5.00	202499.000	1.830	20.0	847165.000	1.924
Methylene Chloride	2.00	19686.0000	0.3263	5.00	43977.0000	0.2988	20.0	176267.000	0.3049
Naphthalene	2.00	43488.0000	1.878	5.00	116834.000	2.027	20.0	515345.000	2.196
Styrene	2.00	49692.0000	1.106	5.00	127982.000	1.156	20.0	537858.000	1.222
Tetrachloroethene	2.00	15337.0000	0.3414	5.00	37035.0000	0.3346	20.0	150452.000	0.3417
Trichloroethene	2.00	18884.0000	0.3130	5.00	46855.0000	0.3184	20.0	193787.000	0.3352
Trichlorofluoromethane	2.00	30849.0000	0.5113	5.00	77852.0000	0.5290	20.0	321955.000	0.5570
Vinyl Acetate	NA	NA	NA	5.00	84280.0000	0.5726	20.0	335268.000	0.5800
cis-1,2-Dichloroethene	2.00	19268.0000	0.3194	5.00	48452.0000	0.3292	20.0	196895.000	0.3406
cis-1,3-Dichloropropene	2.00	26690.0000	0.4424	5.00	72440.0000	0.4922	20.0	285908.000	0.4946
m-,p-Xylene	4.00	61995.0000	0.6899	10.0	160672.000	0.7259	40.0	648347.000	0.7362
n-Butylbenzene	2.00	66128.0000	2.856	5.00	169324.000	2.937	20.0	720194.000	3.068
n-Propylbenzene	2.00	96886.0000	4.184	5.00	243761.000	4.228	20.0	1041788.00	4.438
o-Xylene	2.00	30267.0000	0.6737	5.00	80021.0000	0.7230	20.0	325063.000	0.7382
p-Isopropyltoluene	2.00	66602.0000	2.876	5.00	180640.000	3.133	20.0	750305.000	3.197
sec-Butylbenzene	2.00	81440.0000	3.517	5.00	214143.000	3.714	20.0	883559.000	3.764
tert-Butylbenzene	2.00	12503.0000	0.5400	5.00	34566.0000	0.5995	20.0	141579.000	0.6032
trans-1,2-Dichloroethene	2.00	15730.0000	0.2607	5.00	42523.0000	0.2889	20.0	174312.000	0.3016
trans-1,3-Dichloropropene	2.00	22981.0000	0.5115	5.00	64209.0000	0.5802	20.0	257585.000	0.5850

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Login Number: L10080308 **Instrument ID:** HPMS10
Analytical Method: 8260B **Initial Calibration Date:** 09-AUG-10 20:24
Column ID: F

Analyte	WG339237-08			WG339237-09			WG339237-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloroethane	50.0	339108.000	0.2289	100	633751.000	0.2244	200	1237871.00	0.2154
Dibromochloromethane	50.0	451987.000	0.3960	100	842481.000	0.3823	200	1721270.00	0.3886
Dibromomethane	50.0	250695.000	0.1692	100	472677.000	0.1674	200	950991.000	0.1655
Dichlorodifluoromethane	50.0	609564.000	0.4114	100	1151709.00	0.4078	200	2180903.00	0.3795
Hexachlorobutadiene	50.0	300231.000	0.5023	100	570264.000	0.5089	200	1202307.00	0.5275
Isopropylbenzene	50.0	2097384.00	1.837	100	3861130.00	1.752	200	7469226.00	1.687
Methylene Chloride	50.0	444915.000	0.3003	100	813652.000	0.2881	200	1617221.00	0.2814
Naphthalene	50.0	1291544.00	2.161	100	2425496.00	2.165	200	4671625.00	2.050
Styrene	50.0	1371367.00	1.201	100	2540903.00	1.153	200	4955226.00	1.119
Tetrachloroethene	50.0	381912.000	0.3346	100	696587.000	0.3161	200	1419662.00	0.3205
Trichloroethene	50.0	484700.000	0.3271	100	905453.000	0.3206	200	1832934.00	0.3190
Trichlorofluoromethane	50.0	798966.000	0.5392	100	1541300.00	0.5458	200	3138283.00	0.5461
Vinyl Acetate	50.0	789554.000	0.5328	100	1275834.00	0.4518	200	2791770.00	0.4858
cis-1,2-Dichloroethene	50.0	507601.000	0.3426	100	925910.000	0.3279	200	1887552.00	0.3285
cis-1,3-Dichloropropene	50.0	731210.000	0.4935	100	1336340.00	0.4732	200	2698470.00	0.4696
m-,p-Xylene	100	1629611.00	0.7138	200	2944263.00	0.6681	400	5778941.00	0.6524
n-Butylbenzene	50.0	1816054.00	3.038	100	3305654.00	2.950	200	6502980.00	2.853
n-Propylbenzene	50.0	2569440.00	4.299	100	4649688.00	4.150	200	8758532.00	3.842
o-Xylene	50.0	808264.000	0.7081	100	1484243.00	0.6736	200	2914730.00	0.6581
p-Isopropyltoluene	50.0	1860301.00	3.112	100	3449388.00	3.079	200	6704966.00	2.942
sec-Butylbenzene	50.0	2200946.00	3.682	100	4004783.00	3.574	200	7707187.00	3.381
tert-Butylbenzene	50.0	356475.000	0.5964	100	663111.000	0.5918	200	1320936.00	0.5795
trans-1,2-Dichloroethene	50.0	449765.000	0.3035	100	825677.000	0.2924	200	1686252.00	0.2934
trans-1,3-Dichloropropene	50.0	666421.000	0.5838	100	1228792.00	0.5577	200	2477847.00	0.5595

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Login Number: L10080308
Analytical Method: 8260B
Instrument ID: HPMS10
Initial Calibration Date: 09-AUG-10 20:24
Column ID: F

Analyte	WG339237-11		
	CONC	RESP	RF
Chloroethane	NA	NA	NA
Dibromochloromethane	NA	NA	NA
Dibromomethane	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA
Isopropylbenzene	NA	NA	NA
Methylene Chloride	NA	NA	NA
Naphthalene	NA	NA	NA
Styrene	NA	NA	NA
Tetrachloroethene	NA	NA	NA
Trichloroethene	NA	NA	NA
Trichlorofluoromethane	NA	NA	NA
Vinyl Acetate	300	4086308.00	0.4688
cis-1,2-Dichloroethene	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA
m-,p-Xylene	NA	NA	NA
n-Butylbenzene	NA	NA	NA
n-Propylbenzene	NA	NA	NA
o-Xylene	NA	NA	NA
p-Isopropyltoluene	NA	NA	NA
sec-Butylbenzene	NA	NA	NA
tert-Butylbenzene	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA

INT_CAL - Modified 03/06/2008
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Report generated 08/16/2010 09:11

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

00104620

Login Number: L10080308 Run Date: 08/09/2010 Sample ID: WG339237-12
Instrument ID: HPMS10 Run Time: 21:59 Method: 8260B
File ID: 10M81166 Analyst: TMB QC Key: STD
ICal Workgroup: WG339237 Cal ID: HPMS10 - 09-AUG-10

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Chloroform	CCC	50.0	50.0	ug/L	0.588	0.100	30	
1,1-Dichloroethene	CCC	50.0	50.2	ug/L	0.256	0.400	30	
1,2-Dichloropropane	CCC	50.0	50.2	ug/L	0.427	0.400	30	
Ethylbenzene	CCC	50.0	49.5	ug/L	0.576	1.00	30	
Toluene	CCC	50.0	49.1	ug/L	1.61	1.70	30	
Vinyl Chloride	CCC	50.0	42.7	ug/L	0.348	14.5	30	
Bromoform	SPCC	50.0	54.9	ug/L	0.243	9.70	30	
Chlorobenzene	SPCC	50.0	49.9	ug/L	1.08	0.200	30	
Chloromethane	SPCC	50.0	44.7	ug/L	0.469	10.6	30	
1,1-Dichloroethane	SPCC	50.0	51.1	ug/L	0.757	2.10	30	
1,1,2,2-Tetrachloroethane	SPCC	50.0	54.4	ug/L	0.637	8.80	30	
Acetone		50.0	52.6	ug/L	0.0974	5.20	30	
Benzene		50.0	48.3	ug/L	1.15	3.40	30	
Bromobenzene		50.0	51.8	ug/L	0.917	3.60	30	
Bromochloromethane		50.0	52.7	ug/L	0.147	5.50	30	
Bromodichloromethane		50.0	54.6	ug/L	0.453	9.20	30	
Bromomethane		50.0	42.0	ug/L	0.189	16.0	30	
2-Butanone		50.0	49.1	ug/L	0.146	1.80	30	
n-Butylbenzene		50.0	50.6	ug/L	2.94	1.10	30	
sec-Butylbenzene		50.0	50.4	ug/L	3.62	0.800	30	
tert-Butylbenzene		50.0	52.2	ug/L	0.600	4.40	30	
Carbon Disulfide		50.0	42.6	ug/L	0.747	14.7	30	
Carbon Tetrachloride		50.0	52.4	ug/L	0.475	4.80	30	
Dibromochloromethane		50.0	55.8	ug/L	0.405	11.7	30	
Chloroethane		50.0	48.7	ug/L	0.228	2.60	30	
2-Chloroethyl Vinyl Ether		50.0	49.7	ug/L	0.197	0.700	30	
2-Chlorotoluene		50.0	50.6	ug/L	2.75	1.20	30	
4-Chlorotoluene		50.0	51.0	ug/L	2.63	2.00	30	
1,2-Dibromo-3-Chloropropane		50.0	51.8	ug/L	0.129	3.60	30	
1,2-Dibromoethane		50.0	52.5	ug/L	0.303	5.10	30	
Dibromomethane		50.0	52.9	ug/L	0.170	5.90	30	
1,2-Dichlorobenzene		50.0	51.2	ug/L	1.59	2.30	30	
1,3-Dichlorobenzene		50.0	50.6	ug/L	1.70	1.10	30	
1,4-Dichlorobenzene		50.0	48.2	ug/L	1.71	3.50	30	
Dichlorodifluoromethane		50.0	33.3	ug/L	0.269	33.4	30	*
1,2-Dichloroethane		50.0	51.0	ug/L	0.532	2.00	30	
cis-1,2-Dichloroethene		50.0	51.3	ug/L	0.330	2.50	30	
trans-1,2-Dichloroethene		50.0	50.9	ug/L	0.294	1.70	30	
1,3-Dichloropropane		50.0	51.5	ug/L	0.518	2.90	30	
2,2-Dichloropropane		50.0	43.2	ug/L	0.430	13.7	30	
cis-1,3-Dichloropropene		50.0	50.7	ug/L	0.466	1.50	30	
trans-1,3-Dichloropropene		50.0	46.5	ug/L	0.511	7.10	30	

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1753461
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Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

00104621

Login Number: L10080308 Run Date: 08/09/2010 Sample ID: WG339237-12
Instrument ID: HPMS10 Run Time: 21:59 Method: 8260B
File ID: 10M81166 Analyst: TMB QC Key: STD
ICal Workgroup: WG339237 Cal ID: HPMS10 - 09-AUG-10

Analyte		Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloropropene		50.0	47.9	ug/L	0.411	4.20	30	
2-Hexanone		50.0	48.6	ug/L	0.280	2.90	30	
Hexachlorobutadiene		50.0	50.8	ug/L	0.481	1.50	30	
Isopropylbenzene		50.0	45.1	ug/L	1.60	9.80	30	
p-Isopropyltoluene		50.0	49.5	ug/L	2.99	1.00	30	
4-Methyl-2-Pentanone		50.0	51.0	ug/L	0.120	2.00	30	
Methylene Chloride		50.0	49.9	ug/L	0.301	0.100	30	
Naphthalene		50.0	53.6	ug/L	2.23	7.10	30	
n-Propylbenzene		50.0	50.7	ug/L	4.20	1.30	30	
Styrene		50.0	52.4	ug/L	1.18	4.70	30	
1,1,1,2-Tetrachloroethane		50.0	51.5	ug/L	0.430	3.10	30	
Tetrachloroethene		50.0	49.8	ug/L	0.321	0.500	30	
1,2,3-Trichlorobenzene		50.0	51.0	ug/L	1.04	2.00	30	
1,2,4-Trichlorobenzene		50.0	50.1	ug/L	1.18	0.300	30	
1,1,1-Trichloroethane		50.0	52.7	ug/L	0.536	5.40	30	
1,1,2-Trichloroethane		50.0	52.1	ug/L	0.285	4.30	30	
Trichloroethene		50.0	49.8	ug/L	0.313	0.300	30	
Trichlorofluoromethane		50.0	51.0	ug/L	0.524	1.90	30	
1,2,3-Trichloropropane		50.0	53.0	ug/L	0.198	6.00	30	
1,2,4-Trimethylbenzene		50.0	52.8	ug/L	3.16	5.70	30	
1,3,5-Trimethylbenzene		50.0	52.2	ug/L	3.05	4.40	30	
Vinyl Acetate		50.0	44.5	ug/L	0.458	11.1	40	
o-Xylene		50.0	49.9	ug/L	0.686	0.200	30	
m-,p-Xylene		100	102	ug/L	0.698	1.50	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1753461
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

00104622

Login Number: L10080308 Run Date: 08/13/2010 Sample ID: WG339769-02
Instrument ID: HPMS10 Run Time: 13:33 Method: 8260B
File ID: 10M81273 Analyst: TMB QC Key: STD
Workgroup (AAB#): WG339770 Cal ID: HPMS10 - 09-AUG-10
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloroform	CCC	50.0	55.1	ug/L	0.648	10.3	20	
1,1-Dichloroethene	CCC	50.0	52.8	ug/L	0.270	5.56	20	
1,2-Dichloropropane	CCC	50.0	49.4	ug/L	0.420	1.26	20	
Ethylbenzene	CCC	50.0	51.1	ug/L	0.595	2.18	20	
Toluene	CCC	50.0	50.9	ug/L	1.67	1.89	20	
Vinyl Chloride	CCC	50.0	55.6	ug/L	0.453	11.2	20	
Bromoform	SPCC	50.0	57.9	ug/L	0.256	15.8	40	
Chlorobenzene	SPCC	50.0	51.1	ug/L	1.11	2.20	40	
Chloromethane	SPCC	50.0	51.5	ug/L	0.540	2.96	40	
1,1-Dichloroethane	SPCC	50.0	53.0	ug/L	0.785	5.98	40	
1,1,2,2-Tetrachloroethane	SPCC	50.0	48.5	ug/L	0.568	3.08	40	
Acetone		50.0	48.3	ug/L	0.0894	3.50	40	
Benzene		50.0	48.3	ug/L	1.15	3.34	40	
Bromobenzene		50.0	51.1	ug/L	0.905	2.26	40	
Bromochloromethane		50.0	53.4	ug/L	0.149	6.89	40	
Bromodichloromethane		50.0	56.5	ug/L	0.468	13.0	40	
Bromomethane		50.0	46.2	ug/L	0.208	7.59	40	
2-Butanone		50.0	43.6	ug/L	0.130	12.7	40	
n-Butylbenzene		50.0	53.3	ug/L	3.10	6.53	40	
sec-Butylbenzene		50.0	52.0	ug/L	3.74	3.91	40	
tert-Butylbenzene		50.0	53.1	ug/L	0.609	6.12	40	
Carbon Disulfide		50.0	50.6	ug/L	0.887	1.18	40	
Carbon Tetrachloride		50.0	62.4	ug/L	0.565	24.7	40	
Dibromochloromethane		50.0	57.7	ug/L	0.418	15.5	40	
Chloroethane		50.0	50.5	ug/L	0.237	1.04	40	
2-Chloroethyl Vinyl Ether		50.0	51.0	ug/L	0.202	1.96	40	
2-Chlorotoluene		50.0	51.7	ug/L	2.81	3.48	40	
4-Chlorotoluene		50.0	52.7	ug/L	2.72	5.47	40	
1,2-Dibromo-3-Chloropropane		50.0	49.6	ug/L	0.124	0.745	40	
1,2-Dibromoethane		50.0	53.3	ug/L	0.307	6.52	40	
Dibromomethane		50.0	53.8	ug/L	0.172	7.55	40	
1,2-Dichlorobenzene		50.0	49.6	ug/L	1.54	0.800	40	
1,3-Dichlorobenzene		50.0	50.5	ug/L	1.70	0.917	40	
1,4-Dichlorobenzene		50.0	48.6	ug/L	1.72	2.85	40	
Dichlorodifluoromethane		50.0	58.0	ug/L	0.468	16.0	40	
1,2-Dichloroethane		50.0	55.5	ug/L	0.579	11.1	40	
cis-1,2-Dichloroethene		50.0	52.4	ug/L	0.337	4.71	40	
trans-1,2-Dichloroethene		50.0	53.0	ug/L	0.306	5.97	40	
1,3-Dichloropropane		50.0	50.5	ug/L	0.508	0.979	40	
2,2-Dichloropropane		50.0	58.7	ug/L	0.585	17.5	40	
cis-1,3-Dichloropropene		50.0	53.9	ug/L	0.496	7.85	40	
trans-1,3-Dichloropropene		50.0	55.0	ug/L	0.606	10.0	40	

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

00104623

Login Number: L10080308 Run Date: 08/13/2010 Sample ID: WG339769-02
Instrument ID: HPMS10 Run Time: 13:33 Method: 8260B
File ID: 10M81273 Analyst: TMB QC Key: STD
Workgroup (AAB#): WG339770 Cal ID: HPMS10 - 09-AUG-10
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloropropene		50.0	54.2	ug/L	0.466	8.49	40	
2-Hexanone		50.0	43.8	ug/L	0.253	12.5	40	
Hexachlorobutadiene		50.0	62.9	ug/L	0.595	25.7	40	
Isopropylbenzene		50.0	54.5	ug/L	1.94	9.09	40	
p-Isopropyltoluene		50.0	54.5	ug/L	3.29	9.07	40	
4-Methyl-2-Pentanone		50.0	47.2	ug/L	0.111	5.70	40	
Methylene Chloride		50.0	49.2	ug/L	0.296	1.60	40	
Naphthalene		50.0	49.4	ug/L	2.06	1.10	40	
n-Propylbenzene		50.0	51.7	ug/L	4.28	3.37	40	
Styrene		50.0	53.9	ug/L	1.21	7.87	40	
1,1,1,2-Tetrachloroethane		50.0	55.9	ug/L	0.466	11.8	40	
Tetrachloroethene		50.0	53.6	ug/L	0.345	7.14	40	
1,2,3-Trichlorobenzene		50.0	49.8	ug/L	1.02	0.451	40	
1,2,4-Trichlorobenzene		50.0	51.8	ug/L	1.22	3.58	40	
1,1,1-Trichloroethane		50.0	60.7	ug/L	0.618	21.3	40	
1,1,2-Trichloroethane		50.0	50.0	ug/L	0.274	0.0790	40	
Trichloroethene		50.0	53.2	ug/L	0.334	6.42	40	
Trichlorofluoromethane		50.0	61.3	ug/L	0.630	22.5	40	
1,2,3-Trichloropropane		50.0	51.8	ug/L	0.194	3.60	40	
1,2,4-Trimethylbenzene		50.0	54.1	ug/L	3.24	8.16	40	
1,3,5-Trimethylbenzene		50.0	54.4	ug/L	3.18	8.88	40	
Vinyl Acetate		50.0	47.6	ug/L	0.491	4.73	40	
o-Xylene		50.0	51.5	ug/L	0.708	2.96	40	
m-,p-Xylene		100	105	ug/L	0.721	4.87	40	
1,2-Dichloroethene		100	105	ug/L	0.322	5.34	40	
Xylenes		150	156	ug/L	0.714	4.23	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1753463
Report generated 08/16/2010 09:11

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY

(COMPARED TO CCV)

Login Number: L10080308 **CCV Number:** WG339769-02

Instrument ID: HPMS10 **CAL ID:** HPMS10-09-AUG-10

Workgroup (AAB#): WG339770 **Matrix:** WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG339769-02	NA	NA	319671	600357	789084
Upper Limit	NA	NA	639342	1200714	1578168
Lower Limit	NA	NA	159836	300179	394542
L10080308-01	1.00	01	239769	451967	583967
L10080308-02	1.00	01	233912	441390	568721
L10080308-03	1.00	01	262624	514518	665640
WG339770-01	1.00	01	314844	593720	778543
WG339770-02	1.00	01	311245	594269	762648
WG339770-03	1.00	01	246202	474652	606648
WG339770-04	1.00	01	256053	473981	603824
WG339770-05	1.00	01	258608	485264	620005

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD - Modified 03/06/2008
PDF File ID: 1753464
Report generated 08/16/2010 09:11

Login Number:L10080308
Instrument ID:HPMS10
Workgroup (AAB#):WG339770

CCV Number:WG339769-02
CAL ID: HPMS10-09-AUG-10
Matrix:WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG339769-02	NA	NA	16.63	13.84	10.22
Upper Limit	NA	NA	17.13	14.34	10.72
Lower Limit	NA	NA	16.13	13.34	9.72
L10080308-01	1.00	01	16.63	13.84	10.23
L10080308-02	1.00	01	16.63	13.84	10.23
L10080308-03	1.00	01	16.63	13.84	10.23
WG339770-01	1.00	01	16.63	13.84	10.24
WG339770-02	1.00	01	16.63	13.84	10.23
WG339770-03	1.00	01	16.63	13.84	10.23
WG339770-04	1.00	01	16.63	13.84	10.23
WG339770-05	1.00	01	16.63	13.84	10.23

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT - Modified 03/06/2008
PDF File ID: 1753466
Report generated 08/16/2010 09:11

2.2 General Chromatography Data

LABORATORY REPORT

00104627

L10080308

08/16/10 09:11

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47DPT04	L10080308-01	6850	1	13-AUG-10

Report Number: **L10080308**
Report Date : **August 16, 2010**

00104628

Sample Number:	L10080308-01	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47DPT04	Prep Method:	6850	Prep Date:	08/13/2010 10:50
Matrix:	Water	Analytical Method:	6850	Cal Date:	08/11/2010 16:22
Workgroup Number:	WG339760	Analyst:	WTD	Run Date:	08/13/2010 15:51
Collect Date:	08/12/2010 08:30	Dilution:	1	File ID:	1LM.LM04592
Sample Tag:	01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	1.11		0.200	0.100

2.2.1 LC/MS Data (6850)

2.2.1.1 Summary Data

LABORATORY REPORT

L10080308

00104631

08/17/10 13:34

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47DPT04	L10080308-01	6850	1	13-AUG-10

Report Number: **L10080308**
Report Date : **August 17, 2010**

00104632

Sample Number:	L10080308-01	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47DPT04	Prep Method:	6850	Prep Date:	08/13/2010 10:50
Matrix:	Water	Analytical Method:	6850	Cal Date:	08/11/2010 16:22
Workgroup Number:	WG339760	Analyst:	WTD	Run Date:	08/13/2010 15:51
Collect Date:	08/12/2010 08:30	Dilution:	1	File ID:	1LM.LM04592
Sample Tag:	01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	1.11		0.200	0.100

2.2.1.2 QC Summary Data

Example Calculation 6850 - Perchlorate

Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of internal standard (IS) = Rx/Ristd

x = amount ratio = concentration analyte/concentration internal standard (IS) = Cx / Cistd

m = slope from curve (1.45)

b = intercept from curve (-0.00242)

y = 1.45x + -0.00242

Step 2: Substitute the value for y

where y = 12600/226000 = 0.055752

Step 3: Solve for x

x = (y - b)/m = 0.0040119

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(x) = (5 ug/L)(0.040119) = 0.200594 ug/L

Example Calculation - Water:

Slope from curve, m:	1.45
Intercept from curve, b:	-0.00242
Response of analyte, Rx:	12600
Response of Internal Standard , Ristd:	226000
Concentration of IS, Cistd (ug/L):	5.00
Response Ratio:	0.05575
Amount Ratio:	0.04012
Analyte Concentration, Cx (ug/L) :	0.200594

Example Calculation - Soil:

Analyte Concentration, Cx (ug/L):	0.20059
Amount of soil extracted (g):	5.00
Final volume of extract (mL):	50.00
Percent solids (Pct wt.)	100
Concentration in soil (ug/kg):	2.005938

Microbac Laboratories Inc.

00104635

Instrument Run Log

Instrument: LCMS1 Dataset: 081110_WTD.TXT

Analyst1: WTD Analyst2: NA

Method: 6850 SOP: HPLC06 Rev: 1

Maintenance Log ID: Syringe Filter Lot#: T0404102301

Column 1 ID: KP-RPPX250 Column 2 ID: NA

Workgroups: 339497

CCV Std: STD40370 LCS STD: STD40370

Internal STD: COA14539 Surrogate STD: NA Calibration STD STD40370

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	1LM.LM04520	WG339490-01 CCB	1	1		08/11/10 13:38
2	1LM.LM04521	WG339490-02 0.1ug/L STD	1	1	STD40370	08/11/10 14:02
3	1LM.LM04522	WG339490-03 0.2ug/L STD	1	1	STD40370	08/11/10 14:25
4	1LM.LM04523	WG339490-04 0.5ug/L STD	1	1	STD40370	08/11/10 14:49
5	1LM.LM04524	WG339490-05 1.0ug/L STD	1	1	STD40370	08/11/10 15:12
6	1LM.LM04525	WG339490-06 2.0ug/L STD	1	1	STD40370	08/11/10 15:36
7	1LM.LM04526	WG339490-07 5.0ug/L STD	1	1	STD40370	08/11/10 15:59
8	1LM.LM04527	WG339490-08 10ug/L STD	1	1	STD40370	08/11/10 16:22
9	1LM.LM04528	WG339490-09 1.0ug/L ALT SRC	1	1	STD40359	08/11/10 16:46
10	1LM.LM04529	WG339491-01 CCB	1	1		08/11/10 17:09
11	1LM.LM04530	WG339491-02 1.0ug/L CCV	1	1	STD40370	08/11/10 17:33
12	1LM.LM04531	WG339497-06 2.0ug/kg QCMRL	7	1	STD40370	08/11/10 17:56
13	1LM.LM04532	WG339497-01 2.0ug/kg MCT	7	1	STD40370	08/11/10 18:20
26	1LM.LM04533	WG339497-02 BLANK	7	1		08/11/10 18:43
15	1LM.LM04534	L10080003-29 BLANK2	7	1		08/11/10 19:06
27	1LM.LM04535	L10080003-23 DOC1	7	1	STD40370	08/11/10 19:30
28	1LM.LM04536	L10080003-24 DOC2	7	1	STD40370	08/11/10 19:53
29	1LM.LM04537	L10080003-25 DOC3	7	1	STD40370	08/11/10 20:17
30	1LM.LM04538	L10080003-26 DOC4	7	1	STD40370	08/11/10 20:40
20	1LM.LM04539	L10080003-20 MDL5	7	1	STD40370	08/11/10 21:03
21	1LM.LM04540	L10080003-21 MDL6	7	1	STD40370	08/11/10 21:27
22	1LM.LM04541	L10080003-22 MDL7	7	1	STD40370	08/11/10 21:50
23	1LM.LM04542	WG339491-03 1.0ug/L CCV	1	1	STD40370	08/11/10 22:14
24	1LM.LM04543	WG339497-07 2.0ug/kg QCMRL	7	1	STD40370	08/11/10 22:37
25	1LM.LM04544	WG339491-04 CCB	1	1		08/11/10 23:00

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Page: 1 Approved: 16-AUG-10



Microbac Laboratories Inc.

00104636

Instrument Run Log

Instrument: LCMS1 Dataset: 081310_WTD.TXT

Analyst1: WTD Analyst2: NA

Method: 6850 SOP: HPLC06 Rev: 1

Maintenance Log ID: Syringe Filter Lot#: T0404102301

Column 1 ID: KP-RPPX250 Column 2 ID: NA

Workgroups: 339542,339760

CCV Std: STD40370 LCS STD: STD40370

Internal STD: COA14539 Surrogate STD: NA Calibration STD STD40370

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	1LM.LM04582	WG339751-01 CCB	1	1		08/13/10 10:50
2	1LM.LM04583	WG339751-02 1.0ug/L CCV	1	1	STD40370	08/13/10 11:13
15	1LM.LM04584	WG339760-05 0.2ug/L QCMRL	1	1	STD40370	08/13/10 11:37
4	1LM.LM04585	L10080226-02 100X	1	100		08/13/10 12:00
5	1LM.LM04586	L10080226-03 100X	1	100		08/13/10 13:31
6	1LM.LM04587	WG339760-01 0.2ug/L MCT	1	1		08/13/10 13:55
7	1LM.LM04588	WG339760-02 MET BLANK	1	1	STD40370	08/13/10 14:18
8	1LM.LM04589	WG339760-03 0.2ug/L LCS	1	1	STD40370	08/13/10 14:41
9	1LM.LM04590	WG339760-04 0.2ug/L LCSD	1	100		08/13/10 15:05
10	1LM.LM04591	L10080282-02	1	100		08/13/10 15:28
11	1LM.LM04592	L10080308-01	1	1	STD40370	08/13/10 15:51
12	1LM.LM04593	WG339751-03 1.0ug/L CCV	1	1	STD40370	08/13/10 16:15
16	1LM.LM04594	WG339760-06 0.2ug/L QCMRL	1	1	STD40370	08/13/10 16:38
14	1LM.LM04595	WG339751-04 CCB	1	1		08/13/10 17:02

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Page: 1 Approved: 16-AUG-10



Microbac Laboratories Inc.

00104637

Data Checklist

Date: 11-AUG-2010
Analyst: WTD
Analyst: NA
Method: 6850
Instrument: LCMS1
Curve Workgroup: NA
Runlog ID: 35793
Analytical Workgroups: 339497

ANALYTICAL	
System Performance Check	NA
DFTPP (GCMS)	NA
Endrin/DDT breakdown (8081/GCMS)	NA
Pentachlorophenol/benzidine tailing (GCMS)	NA
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	NA
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (GCMS)	X
Continuing calibration blank (CCB) (IC/LCMS)	X
Limit of quantitation verification (LOQV) (LCMS)	X
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	NA
Recoveries	NA
Surrogate recoveries	NA
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Interference check sample (ICS) (LCMS)	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	X
Library searches (GCMS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	WTD
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
12-AUG-2010

Secondary Reviewer:
16-AUG-2010

CHECKLIST1 - Modified 03/05/2008
Generated: AUG-16-2010 11:53:46

Microbac Laboratories Inc.

00104638

Data Checklist

Date: 13-AUG-2010
Analyst: WTD
Analyst: NA
Method: 6850
Instrument: LCMS1
Curve Workgroup: NA
Runlog ID: 35835
Analytical Workgroups: 339542, 339760

ANALYTICAL	
System Performance Check	NA
DFTPP (GCMS)	NA
Endrin/DDT breakdown (8081/GCMS)	NA
Pentachlorophenol/benzidine tailing (GCMS)	NA
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (GCMS)	X
Continuing calibration blank (CCB) (IC/LCMS)	X
Limit of quantitation verification (LOQV) (LCMS)	X
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	NA
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Interference check sample (ICS) (LCMS)	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	X
Library searches (GCMS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	WTD
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
16-AUG-2010

Secondary Reviewer:
16-AUG-2010

CHECKLIST1 - Modified 03/05/2008
Generated: AUG-16-2010 13:12:14

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

00104639

Analytical Method: 6850 AAB#: WG339760

Login Number: L10080308

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
47DPT04	01	08/12/10					08/13/10	1.1	28		08/13/10	.2	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 1754334
Report generated 08/16/2010 16:46

00104640

METHOD BLANK SUMMARY

Login Number: L10080308
Work Group: WG339760
Blank File ID: 1LM.LM04588
Blank Sample ID: WG339760-02
Prep Date: 08/13/10 10:50
Instrument ID: LCMS1
Analyzed Date: 08/13/10 14:18
Method: 6850
Analyst: WTD

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG339760-05	1LM.LM04584	08/13/10 11:37	01
MCT	WG339760-01	1LM.LM04587	08/13/10 13:55	01
LCS	WG339760-03	1LM.LM04589	08/13/10 14:41	01
LCS2	WG339760-04	1LM.LM04590	08/13/10 15:05	01
47DPT04	L10080308-01	1LM.LM04592	08/13/10 15:51	01
QCMRL	WG339760-06	1LM.LM04594	08/13/10 16:38	01

Report Name: BLANK_SUMMARY
PDF File ID: 1753441
Report generated 08/16/2010 16:46

Microbac Laboratories Inc.

METHOD BLANK REPORT

00104641

Login Number:L10080308 Prep Date:08/13/10 10:50 Sample ID:WG339760-02
Instrument ID:LCMS1 Run Date:08/13/10 14:18 Prep Method:6850
File ID:1LM.LM04588 Analyst:WTD Method:6850
Workgroup (AAB#):WG339760 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-11-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.100	0.200	0.100	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1753442
16-AUG-2010 16:46

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

00104642

Login Number: L10080308 Analyst: WTD Prep Method: 6850
Instrument ID: LCMS1 Matrix: Water Method: 6850
Workgroup (AAB#): WG339760 Units: ug/L
QC Key: STD Lot #: STD40370

Sample ID: WG339760-03 LCS File ID: 1LM.LM04589 Run Date: 08/13/2010 14:41
Sample ID: WG339760-04 LCS2 File ID: 1LM.LM04590 Run Date: 08/13/2010 15:05

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	0.200	0.199	99.5	0.200	0.184	92.0	7.83	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1753443
Report generated: 08/16/2010 16:46

Conductivity Probe Calibration Check:
1422 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level:
10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG339760-01MCT	10,540	NA
-02BLK	0.0	↓
-03LCS	0.0	
-04LCSD	0.0	
L10080282-02	2640	
L10080308-01	3180	

Wade T. DeLong
Analyst

8-13-10 / 14:22
Date/Time

DCN#84034

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

00104644

Login Number: L10080308
Analytical Method: 6850
ICAL Workgroup: WG339490

Instrument ID: LCMS1
Initial Calibration Date: 11-AUG-10 16:22
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD (R^2)
Perchlorate		1.669	6.88	1.00000	

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

INT_CAL - Modified 03/06/2008
PDF File ID: 1754337
Report generated 08/16/2010 16:46

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

00104645

Login Number: L10080308
Analytical Method: 6850

Instrument ID: LCMS1
Initial Calibration Date: 11-AUG-10 16:22
Column ID: F

Analyte	WG339490-02			WG339490-03			WG339490-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Perchlorate	0.100	5210.00000	1.913	0.200	9720.00000	1.762	0.500	22600.0000	1.613

INT_CAL - Modified 03/06/2008
PDF File ID: 1754337
Report generated 08/16/2010 16:46

Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

00104646

Login Number: L10080308
Analytical Method: 6850
Instrument ID: LCMS1
Initial Calibration Date: 11-AUG-10 16:22
Column ID: F

Analyte	WG339490-05			WG339490-06			WG339490-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Perchlorate	1.00	47800.0000	1.681	2.00	89200.0000	1.585	5.00	220000.000	1.571

INT_CAL - Modified 03/06/2008
PDF File ID: 1754337
Report generated 08/16/2010 16:46

Microbac Laboratories Inc.
INITIAL CALIBRATION DATA

00104647

Login Number: L10080308
Analytical Method: 6850
Instrument ID: LCMS1
Initial Calibration Date: 11-AUG-10 16:22
Column ID: F

Analyte	WG339490-08		
	CONC	RESP	RF
Perchlorate	10.0	430000.000	1.561

INT_CAL - Modified 03/06/2008
PDF File ID: 1754337
Report generated 08/16/2010 16:46

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

00104648

Login Number: L10080308 Run Date: 08/11/2010 Sample ID: WG339490-09
Instrument ID: LCMS1 Run Time: 16:46 Method: 6850
File ID: 1LM.LM04528 Analyst: WTD QC Key: STD
ICal Workgroup: WG339490 Cal ID: LCMS1 - 11-AUG-10

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Perchlorate		1.00	1.07	ug/L	1.71	7.00	15	

* Exceeds %D Limit

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1754340
Report generated 08/16/2010 16:47

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

00104649

Login Number: L10080308 Run Date: 08/13/2010 Sample ID: WG339751-01
Instrument ID: LCMS1 Run Time: 10:50 Method: 6850
File ID: 1LM.LM04582 Analyst: WTD Units: ug/L
Workgroup (AAB#): WG339760 Cal ID: LCMS1 - 11-AUG-10
Matrix: WATER QAPP: STD

Analytes	MDL	RDL	Concentration	Qualifier
Perchlorate	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 1753446
Report generated 08/16/2010 16:47

Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

00104650

Login Number: L10080308 Run Date: 08/13/2010 Sample ID: WG339751-04
Instrument ID: LCMS1 Run Time: 17:02 Method: 6850
File ID: 1LM.LM04595 Analyst: WTD Units: ug/L
Workgroup (AAB#): WG339760 Cal ID: LCMS1 - 11-AUG-10
Matrix: WATER QAPP: STD

Analytes	MDL	RDL	Concentration	Qualifier
Perchlorate	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 1753446
Report generated 08/16/2010 16:47

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

00104651

Login Number: L10080308 Run Date: 08/13/2010 Sample ID: WG339751-02
Instrument ID: LCMS1 Run Time: 11:13 Method: 6850
File ID: 1LM.LM04583 Analyst: WTD QC Key: STD
Workgroup (AAB#): WG339760 Cal ID: LCMS1 - 11-AUG-10
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Perchlorate		1.00	0.986	ug/L	1.58	1.40	15	

* Exceeds %D Criteria

CCV - Modified 03/05/2008
PDF File ID: 1753445
Report generated 08/16/2010 16:47

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

00104652

Login Number: L10080308 Run Date: 08/13/2010 Sample ID: WG339751-03
Instrument ID: LCMS1 Run Time: 16:15 Method: 6850
File ID: 1LM.LM04593 Analyst: WTD QC Key: STD
Workgroup (AAB#): WG339760 Cal ID: LCMS1 - 11-AUG-10
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Perchlorate		1.00	1.05	ug/L	1.68	5.00	15	

* Exceeds %D Criteria

CCV - Modified 03/05/2008
PDF File ID: 1753445
Report generated 08/16/2010 16:47

Microbac Laboratories Inc.

QCMRL SAMPLE

00104653

Login Number: L10080308 Run Date: 08/13/2010 Sample ID: WG339760-05

Instrument ID: LCMS1 Run Time: 11:37 Prep Method: 6850

File ID: 1LM.LM04584 Analyst: WTD Method: 6850

Workgroup (AAB#): WG339760 Matrix: Water Units: ug/L

Contract #: DACA56-94-D-0020 Cal ID: LCMS1-11-AUG-10

Analytes	Expected	Found	% Rec	Limits	Q
Perchlorate	0.200	0.201	101	70 - 130	

QCMRL - Modified 03/06/2007

PDF File ID: 1753444

Report generated 08/16/2010 09:09

Microbac Laboratories Inc.

QCMRL SAMPLE

00104654

Login Number: L10080308 Run Date: 08/13/2010 Sample ID: WG339760-06

Instrument ID: LCMS1 Run Time: 16:38 Prep Method: 6850

File ID: 1LM.LM04594 Analyst: WTD Method: 6850

Workgroup (AAB#): WG339760 Matrix: Water Units: ug/L

Contract #: DACA56-94-D-0020 Cal ID: LCMS1-11-AUG-10

Analytes	Expected	Found	% Rec	Limits	Q
Perchlorate	0.200	0.178	89.0	70 - 130	

QCMRL - Modified 03/06/2007

PDF File ID: 1753444

Report generated 08/16/2010 09:09

Login Number:L10080308
Instrument ID:LCMS1
Workgroup (AAB#):WG339760

ICAL CCV Number:WG339490-05
CAL ID: LCMS1-11-AUG-10
Matrix:WATER

Sample Number	Dilution	Tag	IS-1
WG339490	NA	NA	139000
Upper Limit	NA	NA	208500
Lower Limit	NA	NA	69500
L10080308-01	1.00	01	151000
WG339760-02	1.00	01	152000
WG339760-03	1.00	01	150000
WG339760-04	1.00	01	153000

IS-1 - O18LP

Underline = Response outside limits

3.0 Attachments

Microbac Laboratories Inc.
Analyst Listing
August 17, 2010

ADC – ANTHONY D. CANTER
AJF – AMANDA J. FICKIESEN
ALB – ANNIE L. BROWN
ALV – AMY L. VALENTINE
AML – TONY M. LONG
AZH – AFTER HOURS
BLG – BRENDA L. GREENWALT
BRG – BRENDA R. GREGORY
CAA – CASSIE A. AUGENSTEIN
CAF – CHERYL A. FLOWERS
CEB – CHAD E. BARNES
CLC – CHRYS L. CRAWFORD
CLW – CHARISSA L. WINTERS
CPD – CHAD P. DAVIS
CSH – CHRIS S. HILL
DDE – DEBRA D. ELLIOTT
DEL – DON E. LIGHTFRITZ
DEV – DAVID E. VANDENBERG
DGB – DOUGLAS G. BUTCHER
DIH – DEANNA I. HESSON
DLB – DAVID L. BUMGARNER
DLP – DOROTHY L. PAYNE
DLR – DIANNA L. RAUCH
ECL – ERIC C. LAWSON
EDA – ERIN D. AGEE
ERP – ERIN R. PORTER
FJB – FRANCES J. BOLDEN
HAV – HEMA VILASAGAR
HJR – HOLLY J. REED
JBK – JEREMY B. KINNEY
JDH – JUSTIN D. HESSON
JKT – JANE K. THOMPSON
JWR – JOHN W. RICHARDS
JWS – JACK W. SHEAVES
JYH – JI Y. HU
KEB – KATIE E. BARNES
KHR – KIM H. RHODES
KRA – KATHY R. ALBERTSON
LKN – LINDA K. NEDEFF
LMK – LOURAY M. KERN
LSB – LESLIE S. BUCINA
MDA – MIKE D. ALBERTSON
MDC – MIKE D. COCHRAN
MES – MARY E. SCHILLING
MMB – MAREN M. BEERY
MRT – MICHELLE R. TAYLOR
MSW – MATT S. WILSON
PDM – PIERCE D. MORRIS
PWD – PAUL W. DENT
RAH – ROY A. HALSTEAD
RB – BOB BUCHANAN
REK – BOB E. KYER
RLK – ROBIN L. KLINGER
RWC – RODNEY W. CAMPBELL
SLM – STEPHANIE L. MOSSBURG
SLP – SHERI L. PFALZGRAF
TIP – TAE I. PARRISH
TMB – TIFFANY M. BAILEY
TMM – TAMMY M. MORRIS
VC – VICKI COLLIER
WTD – WADE T. DELONG

Microbac Laboratories Inc.
List of Valid Qualifiers
August 17, 2010

00104658

Qualkey: STD_ND=U

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	Analyte present in method blank
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
C	Confirmed by GC/MS
CG	Confluent growth
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to sample matrix interference
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
FL	Free Liquid
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	The analyte was positively identified, but the quantitation was below the RL
J,B	Analyte detected in both the method blank and sample above the MDL.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Tentatively identified compound(TIC)
NA	Not applicable
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria fail. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Not detected at or above adjusted sample detection limit
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

*****Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound an are matrix dependent.

00104659

NO. 5897

Chain of Custody

Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

Laboratory Name: Environmental Waste Solutions C/O Microbac Address: 158 Starlite Dr. Marietta, OH. Contact: Stephanie Mossburg

Project Name: LHAAP Project Location: Karnack, Tx.

Project No.: 117591.0009A130 Project Contact: Jenn Hoang Project Telephone No.: 281-531-3108

Point of Contact: Susan Oller Telephone No.: 281-989-3544

Project Manager/Supervisor: Praveen Srinastav

Analysis and Method Desired (Indicate separate containers)

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	VOC	Perchlorate method 6850	Remarks
1	47DPT04	8/12/10	8:30		✓	W	Site 47	4	3	1	
2	47DPT02	8/12/10	9:00		✓	W	Site 47	3	3		
3	Trip Blank	8/12/10					Site 47				
4											
5											
6											
7											
8											
9											
10											

Transfers Relinquished By (signature)	Date/Time	Transfers Accepted By (signature)	Date/Time	Special Instructions
Susan Oller	08/12/2010 3:00	Scott Beesinger	8/12/10 3:05	24 HR. TAT
Scott Beesinger	8/12/10 3:15			

Microbac OVD 221000008175
Received: 08/13/2010 09:52
By: BRENDA GREENWALT
Brenda Greenwalt

FedEx Airbill No.:

Sampler's Signature: Susan Oller

TAT: _____ Standard _____ Rush Date _____

d Condition _____ Y ___✓___ N _____ Cold

ile Copy

Form Number: 433_2
Rev. 10-19-07

COOLER INSPECTION

Received: 08/13/2010 09:52
Delivery Method: UPS
Opened By: Brenda Greenwalt
Comments:

Login(s): L10080308|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0014252	H	1.0	1Z66V7250190322950	5897	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	Yes	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	Yes	Were VOA samples free of headspace (<6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Login: L10080308
Account: 2773
Project: 2773.025
Samples: 3
Due Date: 16-AUG-2010

Samplenum	Container ID	Products
L10080308-01	724672	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	13-AUG-2010 10:26	JKT	
2	ANALYZ	V1	ORG4	13-AUG-2010 10:32	MRT	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	13-AUG-2010 10:26	JKT	
2	ANALYZ	V1	ORG4	13-AUG-2010 10:32	MRT	RLK

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	13-AUG-2010 10:26	JKT	
2	ANALYZ	V1	ORG4	13-AUG-2010 10:32	MRT	RLK

Samplenum	Container ID	Products
L10080308-01	724673	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	13-AUG-2010 10:26	JKT	
2	ANALYZ	W1	SEM	13-AUG-2010 10:43	WTD	RLK
3	STORE	SEM	A1	16-AUG-2010 09:30	RLK	WTD

Samplenum	Container ID	Products
L10080308-02	724674	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	13-AUG-2010 10:26	JKT	
2	ANALYZ	V1	ORG4	13-AUG-2010 10:32	MRT	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	13-AUG-2010 10:26	JKT	
2	ANALYZ	V1	ORG4	13-AUG-2010 10:32	MRT	RLK

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	13-AUG-2010 10:26	JKT	
2	ANALYZ	V1	ORG4	13-AUG-2010 10:32	MRT	RLK

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

00104662

Internal Chain of Custody Report

Login: L10080308
Account: 2773
Project: 2773.025
Samples: 3
Due Date: 16-AUG-2010

Samplenum	Container ID	Products
L10080308-03	724675	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	13-AUG-2010 10:26	JKT	
2	ANALYZ	V1	ORG4	13-AUG-2010 10:32	MRT	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	13-AUG-2010 10:26	JKT	
2	ANALYZ	V1	ORG4	13-AUG-2010 10:32	MRT	RLK

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
lsoprene
lsopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOl/GC-FID**

lsobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
lsoprene
lsopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

00104666

Validation Qualifier Data Entry Verification

Run Date: September 15, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47-SB-25D-02(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	81.6	Percent		Y	Y								L10080329-01	08:24
	SW6850	NONE	N	0	1	PERCHLORATE	22.5	ug/kg		Y	Y								L10080329-01	20:03

LHAAP-47
OK
ok
09/15/10

1100.80329 00104667

Chain of Custody

LHAAP-47 NO. 5899

Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

Laboratory Name: Environmental Waste Solutions C/O Microbac Address: 158 Starlite Dr. Marietta, OH. Contact: Stephanie Mossburg

Project Name: LHAAP Project Location: Karnack, Tx.

Project No.: 117591.0009A130 Project Contact: Jen Hoang Project Telephone No.: 281-531-3108

Point of Contact: Susan Oller Telephone No.: 281-989-3574 Project Manager/Supervisor: Praveen Srivastav

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	Perchlorate	Analysis and Method Desired (Indicate separate containers)	Remarks
1	47-SB-25D-02 (GW/V2)	8/13/10	13:35		✓	S	Site 47	1	1		
2											
3											
4											
5											
6											
7											
8											
9											
10											

Transfers Relinquished By (signature)	Date/Time	Transfers Accepted By (signature)	Date/Time
Scott Beesley	8/13/10 2:30	Microbac OVD Received: 08/14/2010 10:15 By: DON LIGHTFRITZ 221000008211 Don E Lightfritz	

Special Instructions: 24 HR. TAT

FedEx Airbill No.:

Sampler's Signature: Scott Beesley

Good Condition ____ Y ____ N ____ Cold

TAT: ____ Standard ____ Rush Date ____

White - Lab Copy Canary - Field Copy Pink - File Copy

Form Number: 433_2 Rev. 10-19-07



COOLER INSPECTION

Microbac

Received: 08/14/2010 10:15
Delivery Method: UPS
Opened By: Don Lightfritz
Comments:

Login(s): L10080329|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0014006	H	4.0	1Z66V7254491074002	5899	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (<6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080329
Account: 2773
Project: 2773.025
Samples: 1
Due Date: 17-AUG-2010

Samplenum	Container ID	Products
L10080329-01	724869	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	16-AUG-2010 09:30	JKT	
2	ANALYZ	W1	SEM	16-AUG-2010 09:33	WTD	RLK
3	STORE	SEM	W1	16-AUG-2010 10:36	RLK	WTD
4	STORE	WET	A1	17-AUG-2010 09:01	RLK	JDH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080329

08/27/10 10:26

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47-SB-25D-02(GW/VZ)	L10080329-01	6850	1	14-AUG-10

Microbac Laboratories Inc.

Report Number: L10080329
Report Date : August 27, 2010

(20-22')

Sample Number: L10080329-01
Client ID: 47-SB-25D-02(GW/VZ)
Matrix: Soil
Workgroup Number: WG339873
Collect Date: 08/13/2010 13:35
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/16/2010 12:38
Cal Date: 08/17/2010 16:32
Run Date: 08/17/2010 20:03
File ID: 1LM.LM04650
Percent Solid: 81.6

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	22.5		2.38	1.19

08/27/10

1 of 1

Microbac

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080329
Blank File ID: 1LM.LM04647
Prep Date: 08/16/10 12:38
Analyzed Date: 08/17/10 18:53
Analyst: WTD

Work Group: WG339873
Blank Sample ID: WG339873-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG339873-05	1LM.LM04645	08/17/10 18:06	02
MCT	WG339873-01	1LM.LM04646	08/17/10 18:30	02
LCS	WG339873-03	1LM.LM04648	08/17/10 19:16	02
LCS2	WG339873-04	1LM.LM04649	08/17/10 19:40	02
47-SB-25D-02(GW/VZ)	L10080329-01	1LM.LM04650	08/17/10 20:03	01
QCMRL	WG339873-06	1LM.LM04652	08/17/10 20:50	02

Report Name: BLANK_SUMMARY
PDF File ID: 1755278
Report generated 08/18/2010 10:48

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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080329 Prep Date:08/16/10 12:38 Sample ID:WG339873-02
Instrument ID:LCMS1 Run Date:08/17/10 18:53 Prep Method:6850
File ID:1LM.LM04647 Analyst:WTD Method:6850
Workgroup (AAB#):WG339873 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-17-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	1.00	2.00	1.00	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1755279
18-AUG-2010 10:49

Microbac Laboratories Inc.

LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080329 Analyst:WTD Prep Method:6850

Instrument ID:LCMS1 Matrix:Soil Method:6850

Workgroup (AAB#):WG339873 Units:ug/kg

QC Key:STD Lot #:STD40906

Sample ID:WG339873-03 LCS File ID:1LM.LM04648 Run Date:08/17/2010 19:16

Sample ID:WG339873-04 LCS2 File ID:1LM.LM04649 Run Date:08/17/2010 19:40

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	2.00	1.93	96.5	1.99	1.94	97.5	0.712	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008

PDF File ID:1755280

Report generated: 08/18/2010 10:49

Conductivity Probe Calibration Check: 1422/1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG339873-01 MCT	10,290	
-02 BLK	4.9	
-03 LCS	4.3	
-04 LCSD	4.5	
L10080329-01	10.3	

Wanda Doty
Analyst

8-16-10/ 1350
Date/Time

DCN#84058

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080329

08/27/10 10:26

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47-SB-25D-02(GW/VZ)	L10080329-01	D2216-90	1	14-AUG-10

Microbac Laboratories Inc.

Report Number: L10080329
Report Date : August 27, 2010

Sample Number: L10080329-01
Client ID: 47-SB-25D-02(GW/VZ)
Matrix: Soil
Workgroup Number: WG339910
Collect Date: 08/13/2010 13:35
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/17/2010 08:24
Cal Date:
Run Date: 08/17/2010 08:24
File ID: B1.339910-0101

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	81.6		1.00	1.00

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Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47DPT01-100813	SW6850	NONE	N	0	1	PERCHLORATE	0.300	ug/L		Y	Y					L10080330-04	16:56
47DPT03-100813	SW6850	NONE	N	0	1	PERCHLORATE	0.191	ug/L	J	Y	Y		J			L10080330-01	15:22
	SW8260B	SW5030	N	0	1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N	Y		U			L10080330-01	19:34
						1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U			L10080330-01	19:34
						1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N	Y		U			L10080330-01	19:34
						1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U			L10080330-01	19:34
						1,1-DICHLOROETHANE	0.125	ug/L	U	N	Y		U			L10080330-01	19:34
						1,1-DICHLOROETHENE	0.500	ug/L	U	N	Y		U			L10080330-01	19:34
						1,1-DICHLOROPROPENE	0.250	ug/L	U	N	Y		U			L10080330-01	19:34
						1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N	Y		U			L10080330-01	19:34
						1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N	Y		U			L10080330-01	19:34
						1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N	Y		U			L10080330-01	19:34
						1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N	Y		U			L10080330-01	19:34
						1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N	Y		U			L10080330-01	19:34
						1,2-DIBROMOETHANE	0.250	ug/L	U	N	Y		U			L10080330-01	19:34
						1,2-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U			L10080330-01	19:34
						1,2-DICHLOROETHANE	0.250	ug/L	U	N	Y		U			L10080330-01	19:34
						1,2-DICHLOROPROPANE	0.200	ug/L	U	N	Y		U			L10080330-01	19:34
						1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N	Y		U			L10080330-01	19:34
						1,3-DICHLOROBENZENE	0.250	ug/L	U	N	Y		U			L10080330-01	19:34
						1,3-DICHLOROPROPANE	0.200	ug/L	U	N	Y		U			L10080330-01	19:34
						1,4-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U			L10080330-01	19:34
						2,2-DICHLOROPROPANE	0.250	ug/L	U	N	Y		U			L10080330-01	19:34
						2-BUTANONE	3.33	ug/L	J	Y	Y		J			L10080330-01	19:34
						2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N	Y		U			L10080330-01	19:34
						2-CHLOROTOLUENE	0.125	ug/L	U	N	Y		U			L10080330-01	19:34
						2-HEXANONE	2.50	ug/L	U	N	Y		U			L10080330-01	19:34
						4-CHLOROTOLUENE	0.250	ug/L	U	N	Y		U			L10080330-01	19:34
						4-METHYL-2-PENTANONE	2.50	ug/L	U	N	Y		U			L10080330-01	19:34
						ACETONE	19.9	ug/L		Y	Y					L10080330-01	19:34
						BENZENE	0.125	ug/L	U	N	Y		U			L10080330-01	19:34
						BROMOBENZENE	0.125	ug/L	U	N	Y		U			L10080330-01	19:34
						BROMOCHLOROMETHANE	0.200	ug/L	U	N	Y		U			L10080330-01	19:34
						BROMODICHLOROMETHANE	0.250	ug/L	U	N	Y		U			L10080330-01	19:34
						BROMOFORM	0.500	ug/L	U	N	Y		U			L10080330-01	19:34
						BROMOMETHANE	0.500	ug/L	U	N	Y		U			L10080330-01	19:34
						CARBON DISULFIDE	0.500	ug/L	U	N	Y		U			L10080330-01	19:34
						CARBON TETRACHLORIDE	0.250	ug/L	U	N	Y		U			L10080330-01	19:34
						CHLOROBENZENE	0.125	ug/L	U	N	Y		U			L10080330-01	19:34
						CHLORODIBROMOMETHANE	0.250	ug/L	U	N	Y		U			L10080330-01	19:34
						CHLOROETHANE	0.500	ug/L	U	N	Y		U			L10080330-01	19:34
						CHLOROFORM	0.125	ug/L	U	N	Y		U			L10080330-01	19:34
						CHLOROMETHANE	0.500	ug/L	U	N	Y		U			L10080330-01	19:34

Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47DPT03-100813	SW8260B	SW5030	N 0 1	CIS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				DIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				ETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				HEXACHLOROBUTADIENE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				ISOPROPYLBENZENE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				M-,P-XYLENE	0.500	ug/L	U	N Y	U			L10080330-01	19:34
				METHYLENE CHLORIDE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				N-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				N-PROPYLBENZENE	0.125	ug/L	U	N Y	U			L10080330-01	19:34
				NAPHTHALENE	0.200	ug/L	U	N Y	U			L10080330-01	19:34
				O-XYLENE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				P-ISOPROPYLTOLUENE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				SEC-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				STYRENE	0.125	ug/L	U	N Y	U			L10080330-01	19:34
				TERT-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				TETRACHLOROETHENE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				TOLUENE	0.279	ug/L	J	Y Y	J			L10080330-01	19:34
				TRANS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N Y	U			L10080330-01	19:34
				TRICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
				VINYL ACETATE	2.50	ug/L	U	N Y	U			L10080330-01	19:34
				VINYL CHLORIDE	0.250	ug/L	U	N Y	U			L10080330-01	19:34
47DPT05-100813	SW6850	NONE	N 0 1	PERCHLORATE	0.100	ug/L	U	N Y	U			L10080330-02	15:45
	SW8260B	SW5030	N 0 1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N Y	U			L10080330-02	20:06
				1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				1,1-DICHLOROETHANE	0.125	ug/L	U	N Y	U			L10080330-02	20:06
				1,1-DICHLOROETHENE	0.500	ug/L	U	N Y	U			L10080330-02	20:06
				1,1-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N Y	U			L10080330-02	20:06
				1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N Y	U			L10080330-02	20:06
				1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N Y	U			L10080330-02	20:06
				1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N Y	U			L10080330-02	20:06
				1,2-DIBROMOETHANE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				1,2-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080330-02	20:06
				1,2-DICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				1,2-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080330-02	20:06
				1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06

Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47DPT05-100813	SW8260B	SW5030	N 0 1	1,3-DICHLOROBENZENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				1,3-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080330-02	20:06
				1,4-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080330-02	20:06
				2,2-DICHLOROPROPANE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				2-BUTANONE	2.50	ug/L	U	N Y	U			L10080330-02	20:06
				2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N Y	U			L10080330-02	20:06
				2-CHLOROTOLUENE	0.125	ug/L	U	N Y	U			L10080330-02	20:06
				2-HEXANONE	2.50	ug/L	U	N Y	U			L10080330-02	20:06
				4-CHLOROTOLUENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				4-METHYL-2-PENTANONE	2.50	ug/L	U	N Y	U			L10080330-02	20:06
				ACETONE	6.12	ug/L	J	Y Y	J			L10080330-02	20:06
				BENZENE	0.125	ug/L	U	N Y	U			L10080330-02	20:06
				BROMOBENZENE	0.125	ug/L	U	N Y	U			L10080330-02	20:06
				BROMOCHLOROMETHANE	0.200	ug/L	U	N Y	U			L10080330-02	20:06
				BROMODICHLOROMETHANE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				BROMOFORM	0.500	ug/L	U	N Y	U			L10080330-02	20:06
				BROMOMETHANE	0.500	ug/L	U	N Y	U			L10080330-02	20:06
				CARBON DISULFIDE	0.500	ug/L	U	N Y	U			L10080330-02	20:06
				CARBON TETRACHLORIDE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				CHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080330-02	20:06
				CHLORODIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				CHLOROETHANE	0.500	ug/L	U	N Y	U			L10080330-02	20:06
				CHLOROFORM	0.125	ug/L	U	N Y	U			L10080330-02	20:06
				CHLOROMETHANE	0.523	ug/L	J	Y Y	J			L10080330-02	20:06
				CIS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				DIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				ETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				HEXACHLOROBUTADIENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				ISOPROPYLBENZENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				M-,P-XYLENE	0.500	ug/L	U	N Y	U			L10080330-02	20:06
				METHYLENE CHLORIDE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				N-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				N-PROPYLBENZENE	0.125	ug/L	U	N Y	U			L10080330-02	20:06
				NAPHTHALENE	0.200	ug/L	U	N Y	U			L10080330-02	20:06
				O-XYLENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				P-ISOPROPYLTOLUENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				SEC-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				STYRENE	0.125	ug/L	U	N Y	U			L10080330-02	20:06
				TERT-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				TETRACHLOROETHENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				TOLUENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06
				TRANS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080330-02	20:06

Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47DPT05-100813	SW8260B	SW5030	N	0	1	TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N	Y		U						L10080330-02	20:06
						TRICHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080330-02	20:06
						TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N	Y		U						L10080330-02	20:06
						VINYL ACETATE	2.50	ug/L	U	N	Y		U						L10080330-02	20:06
						VINYL CHLORIDE	0.250	ug/L	U	N	Y		U						L10080330-02	20:06
47DPT06-100813	SW6850	NONE	N	0	1	PERCHLORATE	0.100	ug/L	U	N	Y		U						L10080330-03	16:09
	SW8260B	SW5030	N	0	2.5	1,1,1,2-TETRACHLOROETHANE	0.625	ug/L	U	N	Y		U						L10080330-03	20:38
						1,1,1-TRICHLOROETHANE	0.625	ug/L	U	N	Y		U						L10080330-03	20:38
						1,1,2,2-TETRACHLOROETHANE	0.500	ug/L	U	N	Y		U						L10080330-03	20:38
						1,1,2-TRICHLOROETHANE	0.625	ug/L	U	N	Y		U						L10080330-03	20:38
						1,1-DICHLOROETHANE	11.2	ug/L		Y	Y								L10080330-03	20:38
						1,1-DICHLOROETHENE	20.7	ug/L		Y	Y								L10080330-03	20:38
						1,1-DICHLOROPROPENE	0.625	ug/L	U	N	Y		U						L10080330-03	20:38
						1,2,3-TRICHLOROBENZENE	0.375	ug/L	U	N	Y		U						L10080330-03	20:38
						1,2,3-TRICHLOROPROPANE	1.25	ug/L	U	N	Y		U						L10080330-03	20:38
						1,2,4-TRICHLOROBENZENE	0.500	ug/L	U	N	Y		U						L10080330-03	20:38
						1,2,4-TRIMETHYLBENZENE	0.625	ug/L	U	N	Y		U						L10080330-03	20:38
						1,2-DIBROMO-3-CHLOROPROPANE	2.50	ug/L	U	N	Y		U						L10080330-03	20:38
						1,2-DIBROMOETHANE	0.625	ug/L	U	N	Y		U						L10080330-03	20:38
						1,2-DICHLOROBENZENE	0.313	ug/L	U	N	Y		U						L10080330-03	20:38
						1,2-DICHLOROETHANE	0.625	ug/L	U	N	Y		U						L10080330-03	20:38
						1,2-DICHLOROPROPANE	0.500	ug/L	U	N	Y		U						L10080330-03	20:38
						1,3,5-TRIMETHYLBENZENE	0.625	ug/L	U	N	Y		U						L10080330-03	20:38
						1,3-DICHLOROBENZENE	0.625	ug/L	U	N	Y		U						L10080330-03	20:38
						1,3-DICHLOROPROPANE	0.500	ug/L	U	N	Y		U						L10080330-03	20:38
						1,4-DICHLOROBENZENE	0.313	ug/L	U	N	Y		U						L10080330-03	20:38
						2,2-DICHLOROPROPANE	0.625	ug/L	U	N	Y		U						L10080330-03	20:38
						2-BUTANONE	6.25	ug/L	U	N	Y		U						L10080330-03	20:38
						2-CHLOROETHYL VINYL ETHER	5.00	ug/L	U	N	Y		U						L10080330-03	20:38
						2-CHLOROTOLUENE	0.313	ug/L	U	N	Y		U						L10080330-03	20:38
						2-HEXANONE	6.25	ug/L	U	N	Y		U						L10080330-03	20:38
						4-CHLOROTOLUENE	0.625	ug/L	U	N	Y		U						L10080330-03	20:38
						4-METHYL-2-PENTANONE	6.25	ug/L	U	N	Y		U						L10080330-03	20:38
						ACETONE	6.25	ug/L	U	N	Y		U						L10080330-03	20:38
						BENZENE	0.313	ug/L	U	N	Y		U						L10080330-03	20:38
						BROMOBENZENE	0.313	ug/L	U	N	Y		U						L10080330-03	20:38
						BROMOCHLOROMETHANE	0.500	ug/L	U	N	Y		U						L10080330-03	20:38
						BROMODICHLOROMETHANE	0.625	ug/L	U	N	Y		U						L10080330-03	20:38
						BROMOFORM	1.25	ug/L	U	N	Y		U						L10080330-03	20:38
						BROMOMETHANE	1.25	ug/L	U	N	Y		U						L10080330-03	20:38
						CARBON DISULFIDE	1.25	ug/L	U	N	Y		U						L10080330-03	20:38
						CARBON TETRACHLORIDE	0.625	ug/L	U	N	Y		U						L10080330-03	20:38
						CHLOROBENZENE	0.313	ug/L	U	N	Y		U						L10080330-03	20:38

Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47DPT06-100813	SW8260B	SW5030	N 0 2.5	CHLORODIBROMOMETHANE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				CHLOROETHANE	1.25	ug/L	U	N Y	U			L10080330-03	20:38
				CHLOROFORM	0.313	ug/L	U	N Y	U			L10080330-03	20:38
				CHLOROMETHANE	1.25	ug/L	U	N Y	U			L10080330-03	20:38
				CIS-1,2-DICHLOROETHENE	20.7	ug/L		Y Y				L10080330-03	20:38
				CIS-1,3-DICHLOROPROPENE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				DIBROMOMETHANE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				DICHLORODIFLUOROMETHANE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				ETHYLBENZENE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				HEXACHLOROBUTADIENE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				ISOPROPYLBENZENE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				M-,P-XYLENE	1.25	ug/L	U	N Y	U			L10080330-03	20:38
				METHYLENE CHLORIDE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				N-BUTYLBENZENE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				N-PROPYLBENZENE	0.313	ug/L	U	N Y	U			L10080330-03	20:38
				NAPHTHALENE	0.500	ug/L	U	N Y	U			L10080330-03	20:38
				O-XYLENE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				P-ISOPROPYLTOLUENE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				SEC-BUTYLBENZENE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				STYRENE	0.313	ug/L	U	N Y	U			L10080330-03	20:38
				TERT-BUTYLBENZENE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				TETRACHLOROETHENE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				TOLUENE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				TRANS-1,2-DICHLOROETHENE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				TRANS-1,3-DICHLOROPROPENE	1.25	ug/L	U	N Y	U			L10080330-03	20:38
				TRICHLOROETHENE	625	ug/L	E	Y N	R			L10080330-03	20:38
				TRICHLOROFLUOROMETHANE	0.625	ug/L	U	N Y	U			L10080330-03	20:38
				VINYL ACETATE	6.25	ug/L	U	N Y	U			L10080330-03	20:38
				VINYL CHLORIDE	4.47	ug/L		Y Y				L10080330-03	20:38
	SW8260B	SW5030	N 1 10	1,1,1,2-TETRACHLOROETHANE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				1,1,1-TRICHLOROETHANE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				1,1,2,2-TETRACHLOROETHANE	2.00	ug/L	U	N N	R			L10080330-03	10:35
				1,1,2-TRICHLOROETHANE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				1,1-DICHLOROETHANE	8.47	ug/L	J	Y N	R			L10080330-03	10:35
				1,1-DICHLOROETHENE	17.4	ug/L		Y N	R			L10080330-03	10:35
				1,1-DICHLOROPROPENE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				1,2,3-TRICHLOROBENZENE	1.50	ug/L	U	N N	R			L10080330-03	10:35
				1,2,3-TRICHLOROPROPANE	5.00	ug/L	U	N N	R			L10080330-03	10:35
				1,2,4-TRICHLOROBENZENE	2.00	ug/L	U	N N	R			L10080330-03	10:35
				1,2,4-TRIMETHYLBENZENE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				1,2-DIBROMO-3-CHLOROPROPANE	10.0	ug/L	U	N N	R			L10080330-03	10:35
				1,2-DIBROMOETHANE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				1,2-DICHLOROBENZENE	1.25	ug/L	U	N N	R			L10080330-03	10:35

Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47DPT06-100813	SW8260B	SW5030	N 1 10	1,2-DICHLOROETHANE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				1,2-DICHLOROPROPANE	2.00	ug/L	U	N N	R			L10080330-03	10:35
				1,3,5-TRIMETHYLBENZENE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				1,3-DICHLOROBENZENE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				1,3-DICHLOROPROPANE	2.00	ug/L	U	N N	R			L10080330-03	10:35
				1,4-DICHLOROBENZENE	1.25	ug/L	U	N N	R			L10080330-03	10:35
				2,2-DICHLOROPROPANE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				2-BUTANONE	25.0	ug/L	U	N N	R			L10080330-03	10:35
				2-CHLOROETHYL VINYL ETHER	20.0	ug/L	U	N N	R			L10080330-03	10:35
				2-CHLOROTOLUENE	1.25	ug/L	U	N N	R			L10080330-03	10:35
				2-HEXANONE	25.0	ug/L	U	N N	R			L10080330-03	10:35
				4-CHLOROTOLUENE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				4-METHYL-2-PENTANONE	25.0	ug/L	U	N N	R			L10080330-03	10:35
				ACETONE	25.0	ug/L	U	N N	R			L10080330-03	10:35
				BENZENE	1.25	ug/L	U	N N	R			L10080330-03	10:35
				BROMOBENZENE	1.25	ug/L	U	N N	R			L10080330-03	10:35
				BROMOCHLOROMETHANE	2.00	ug/L	U	N N	R			L10080330-03	10:35
				BROMODICHLOROMETHANE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				BROMOFORM	5.00	ug/L	U	N N	R			L10080330-03	10:35
				BROMOMETHANE	5.00	ug/L	U	N N	R			L10080330-03	10:35
				CARBON DISULFIDE	5.00	ug/L	U	N N	R			L10080330-03	10:35
				CARBON TETRACHLORIDE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				CHLOROBENZENE	1.25	ug/L	U	N N	R			L10080330-03	10:35
				CHLORODIBROMOMETHANE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				CHLOROETHANE	5.00	ug/L	U	N N	R			L10080330-03	10:35
				CHLOROFORM	1.25	ug/L	U	N N	R			L10080330-03	10:35
				CHLOROMETHANE	5.00	ug/L	U	N N	R			L10080330-03	10:35
				CIS-1,2-DICHLOROETHENE	15.1	ug/L		Y N	R			L10080330-03	10:35
				CIS-1,3-DICHLOROPROPENE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				DIBROMOMETHANE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				DICHLORODIFLUOROMETHANE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				ETHYLBENZENE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				HEXACHLOROBUTADIENE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				ISOPROPYLBENZENE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				M-,P-XYLENE	5.00	ug/L	U	N N	R			L10080330-03	10:35
				METHYLENE CHLORIDE	6.33	ug/L	J	Y N	R			L10080330-03	10:35
				N-BUTYLBENZENE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				N-PROPYLBENZENE	1.25	ug/L	U	N N	R			L10080330-03	10:35
				NAPHTHALENE	2.00	ug/L	U	N N	R			L10080330-03	10:35
				O-XYLENE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				P-ISOPROPYLTOLUENE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				SEC-BUTYLBENZENE	2.50	ug/L	U	N N	R			L10080330-03	10:35
				STYRENE	1.25	ug/L	U	N N	R			L10080330-03	10:35
				TERT-BUTYLBENZENE	2.50	ug/L	U	N N	R			L10080330-03	10:35

Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47DPT06-100813	SW8260B	SW5030	N	1	10	TETRACHLOROETHENE	2.50	ug/L	U	N	N		R						L10080330-03	10:35
						TOLUENE	2.50	ug/L	U	N	N		R						L10080330-03	10:35
						TRANS-1,2-DICHLOROETHENE	2.50	ug/L	U	N	N		R						L10080330-03	10:35
						TRANS-1,3-DICHLOROPROPENE	5.00	ug/L	U	N	N		R						L10080330-03	10:35
						TRICHLOROETHENE	526	ug/L		Y	Y								L10080330-03	10:35
						TRICHLOROFLUOROMETHANE	2.50	ug/L	U	N	N		R						L10080330-03	10:35
						VINYL ACETATE	25.0	ug/L	U	N	N		R						L10080330-03	10:35
						VINYL CHLORIDE	4.19	ug/L	J	Y	N		R						L10080330-03	10:35

L1008033O 00104693

Chain of Custody

NO. 5898

Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

Laboratory Name: ENVIRONMENTAL WASTE SOLUTIONS C/O MICROBAC Address: 158 STARLITE DR. MARIETTA, OH. Contact: STEPHANIE MOSSBURG

Project Name: LHAAP Project Location: KARNACK, TX.

Project No.: 117591.0009A130 Project Contact: JEN HOANG Project Telephone No.: 281-531-3108

Point of Contact: SUSAN OLLER Telephone No.: 281-989-3544

Project Manager/Supervisor: PRAVEEN SRIVASTAV

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	VOC	PERCHLORATE METHOD 6850						Remarks
1	47DPT03	8/13/10	8:10		✓	W	SITE 47	4	3	1						
2	47DPT05	8/13/10	9:50		✓	W	SITE 47	4	3	1						
3	47DPT06	8/13/10	10:30		✓	W	SITE 47	4	3	1						
4	47DPT01	8/13/10	11:30		✓	W	SITE 47	1		1						
5	TRIP BLANK	8/13/10			✓	W	SITE 47	2	2							
6																
7																
8																
9																
10																

Transfers Relinquished By (signature): Scott Beesley — Date/Time: 8/13/10 2:30

Transfers Accepted By (signature): — Date/Time:

Special Instructions: 24 HR. TAT

Microbac OVD 221000008201
Received: 08/14/2010 10:15
By: DON LIGHTFRITZ
Don E Lightfritz

FedEx Airbill No.:

Sampler's Signature: Scott Beesley

TAT: ____ Standard ____ Rush Date ____

Condition ____ Y ____ N ____ Cold

White - Lab Copy Canary - Field Copy Pink - File Copy

Form Number: 433_2
Rev. 10-19-07

Page 1/1

COOLER INSPECTION

Microbac®

Received: 08/14/2010 10:15
Delivery Method: UPS
Opened By: Don Lightfritz
Comments:

Login(s): L10080330|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0014006	H	4.0	1Z66V7254491074002	5898	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	Yes	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	Yes	Were VOA samples free of headspace (<6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080330
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 17-AUG-2010

Samplenum	Container ID	Products
L10080330-01	724870	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	16-AUG-2010 09:30	JKT	
2	ANALYZ	V1	ORG4	16-AUG-2010 09:40	MRT	JKT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	16-AUG-2010 09:30	JKT	
2	ANALYZ	V1	ORG4	16-AUG-2010 09:40	MRT	JKT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	16-AUG-2010 09:30	JKT	
2	ANALYZ	V1	ORG4	16-AUG-2010 09:40	MRT	JKT

Samplenum	Container ID	Products
L10080330-01	724871	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	16-AUG-2010 09:30	JKT	
2	ANALYZ	W1	SEM	16-AUG-2010 09:33	WTD	RLK
3	STORE	SEM	A1	17-AUG-2010 14:22	RLK	WTD

Samplenum	Container ID	Products
L10080330-02	724872	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	16-AUG-2010 09:30	JKT	
2	ANALYZ	V1	ORG4	16-AUG-2010 09:40	MRT	JKT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	16-AUG-2010 09:30	JKT	
2	ANALYZ	V1	ORG4	16-AUG-2010 09:40	MRT	JKT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	16-AUG-2010 09:30	JKT	
2	ANALYZ	V1	ORG4	16-AUG-2010 09:40	MRT	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080330
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 17-AUG-2010

Samplenum	Container ID	Products
L10080330-02	724873	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	16-AUG-2010 09:30	JKT	
2	ANALYZ	W1	SEM	16-AUG-2010 09:33	WTD	RLK
3	STORE	SEM	A1	17-AUG-2010 14:22	RLK	WTD

Samplenum	Container ID	Products
L10080330-03	724874	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	16-AUG-2010 09:30	JKT	
2	ANALYZ	V1	ORG4	16-AUG-2010 09:40	MRT	JKT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	16-AUG-2010 09:30	JKT	
2	ANALYZ	V1	ORG4	16-AUG-2010 09:40	MRT	JKT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	16-AUG-2010 09:30	JKT	
2	ANALYZ	V1	ORG4	16-AUG-2010 09:40	MRT	JKT

Samplenum	Container ID	Products
L10080330-03	724875	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	16-AUG-2010 09:30	JKT	
2	ANALYZ	W1	SEM	16-AUG-2010 09:33	WTD	RLK
3	STORE	SEM	A1	17-AUG-2010 14:22	RLK	WTD

Samplenum	Container ID	Products
L10080330-04	724876	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	16-AUG-2010 09:30	JKT	
2	ANALYZ	W1	SEM	16-AUG-2010 09:33	WTD	RLK
3	STORE	SEM	A1	17-AUG-2010 14:22	RLK	WTD

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080330
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 17-AUG-2010

Samplenum	Container ID	Products
L10080330-05	724877	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	16-AUG-2010 09:30	JKT	
2	ANALYZ	V1	ORG4	16-AUG-2010 09:40	MRT	JKT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	16-AUG-2010 09:30	JKT	
2	ANALYZ	V1	ORG4	16-AUG-2010 09:40	MRT	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080330

08/23/10 10:25

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

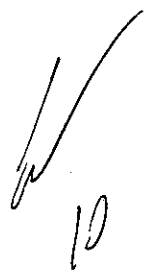
Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47DPT03	L10080330-01	8260B	1	14-AUG-10
47DPT05	L10080330-02	8260B	1	14-AUG-10
47DPT06	L10080330-03	8260B	10	14-AUG-10
47DPT06	L10080330-03	8260B	2.5	14-AUG-10
TRIP BLANK	L10080330-05	8260B	1	14-AUG-10



Report Number: L10080330
Report Date : August 23, 2010

Sample Number: L10080330-01
Client ID: 47DPT03
Matrix: Water
Workgroup Number: WG340009
Collect Date: 08/13/2010 08:10
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS8
Prep Date: 08/17/2010 19:34
Cal Date: 08/05/2010 19:10
Run Date: 08/17/2010 19:34
File ID: 8M363386

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	19.9		10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3	3.33	J	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3	0.279	J	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

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100610

Report Number: L10080330
Report Date : August 23, 2010

Sample Number: L10080330-01
Client ID: 47DPT03
Matrix: Water
Workgroup Number: WG340009
Collect Date: 08/13/2010 08:10
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS8
Prep Date: 08/17/2010 19:34
Cal Date: 08/05/2010 19:10
Run Date: 08/17/2010 19:34
File ID: 8M363386

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	101	86	118	
1,2-Dichloroethane-d4	98.6	80	120	
Toluene-d8	98.3	88	110	
4-Bromofluorobenzene	95.5	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

100610

Microbac

00104706

Report Number: L10080330
Report Date : August 23, 2010

Sample Number: L10080330-02
Client ID: 47DPT05
Matrix: Water
Workgroup Number: WG340009
Collect Date: 08/13/2010 09:50
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS8
Prep Date: 08/17/2010 20:06
Cal Date: 08/05/2010 19:10
Run Date: 08/17/2010 20:06
File ID: 8M363387

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	6.12	J	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3	0.523	J	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

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100460

Microbac Laboratories Inc.

Report Number: L10080330
Report Date : August 23, 2010

Sample Number: L10080330-02
Client ID: 47DPT05
Matrix: Water
Workgroup Number: WG340009
Collect Date: 08/13/2010 09:50
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS8
Prep Date: 08/17/2010 20:06
Cal Date: 08/05/2010 19:10
Run Date: 08/17/2010 20:06
File ID: 8M363387

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	101	86	118	
1,2-Dichloroethane-d4	98.8	80	120	
Toluene-d8	99.3	88	110	
4-Bromofluorobenzene	95.2	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL



Microbac

00104708

Report Number: L10080330
Report Date : August 23, 2010

Sample Number: L10080330-03
Client ID: 47DPT06
Matrix: Water
Workgroup Number: WG340090
Collect Date: 08/13/2010 10:30
Sample Tag: DL03

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 10
Units: ug/L

Instrument: HPMS8
Prep Date: 08/18/2010 10:35
Cal Date: 08/05/2010 19:10
Run Date: 08/18/2010 10:35
File ID: 8M363407

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	100	25.0
Benzene	71-43-2		U	10.0	1.25
Bromobenzene	108-86-1		U	10.0	1.25
Bromochloromethane	74-97-5		U	10.0	2.00
Bromodichloromethane	75-27-4		U	10.0	2.50
Bromoform	75-25-2		U	10.0	5.00
Bromomethane	74-83-9		U	10.0	5.00
2-Butanone	78-93-3		U	100	25.0
n-Butylbenzene	104-51-8		U	10.0	2.50
sec-Butylbenzene	135-98-8		U	10.0	2.50
tert-Butylbenzene	98-06-6		U	10.0	2.50
Carbon disulfide	75-15-0		U	10.0	5.00
Carbon tetrachloride	56-23-5		U	10.0	2.50
Chlorobenzene	108-90-7		U	10.0	1.25
Chlorodibromomethane	124-48-1		U	10.0	2.50
Chloroethane	75-00-3		U	10.0	5.00
2-Chloroethyl vinyl ether	110-75-8		U	100	20.0
Chloroform	67-66-3		U	10.0	1.25
Chloromethane	74-87-3		U	10.0	5.00
2-Chlorotoluene	95-49-8		U	10.0	1.25
4-Chlorotoluene	106-43-4		U	10.0	2.50
1,2-Dibromo-3-chloropropane	96-12-8		U	50.0	10.0
1,2-Dibromoethane	106-93-4		U	10.0	2.50
Dibromomethane	74-95-3		U	10.0	2.50
1,2-Dichlorobenzene	95-50-1		U	10.0	1.25
1,3-Dichlorobenzene	541-73-1		U	10.0	2.50
1,4-Dichlorobenzene	106-46-7		U	10.0	1.25
Dichlorodifluoromethane	75-71-8		U	10.0	2.50
1,1-Dichloroethane	75-34-3	8.47	J	10.0	1.25
1,2-Dichloroethane	107-06-2		U	10.0	2.50
1,1-Dichloroethene	75-35-4	17.4		10.0	5.00
cis-1,2-Dichloroethene	156-59-2	15.1		10.0	2.50
trans-1,2-Dichloroethene	156-60-5		U	10.0	2.50
1,2-Dichloropropane	78-87-5		U	10.0	2.00
1,3-Dichloropropane	142-28-9		U	10.0	2.00
2,2-Dichloropropane	594-20-7		U	10.0	2.50
cis-1,3-Dichloropropene	10061-01-5		U	10.0	2.50
trans-1,3-Dichloropropene	10061-02-6		U	10.0	5.00
1,1-Dichloropropene	563-58-6		U	10.0	2.50
Ethylbenzene	100-41-4		U	10.0	2.50
2-Hexanone	591-78-6		U	100	25.0
Hexachlorobutadiene	87-68-3		U	10.0	2.50
Isopropylbenzene	98-82-8		U	10.0	2.50
p-Isopropyltoluene	99-87-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	100	25.0
Methylene chloride	75-09-2	6.33	J	50.0	2.50
Naphthalene	91-20-3		U	10.0	2.00
n-Propylbenzene	103-65-1		U	10.0	1.25
Styrene	100-42-5		U	10.0	1.25
1,1,1,2-Tetrachloroethane	630-20-6		U	10.0	2.50
1,1,2,2-Tetrachloroethane	79-34-5		U	10.0	2.00
Tetrachloroethene	127-18-4		U	10.0	2.50
Toluene	108-88-3		U	10.0	2.50
1,2,3-Trichlorobenzene	87-61-6		U	10.0	1.50
1,2,4-Trichlorobenzene	120-82-1		U	10.0	2.00
1,1,1-Trichloroethane	71-55-6		U	10.0	2.50
1,1,2-Trichloroethane	79-00-5		U	10.0	2.50
Trichloroethene	79-01-6	526		10.0	2.50
Trichlorofluoromethane	75-69-4		U	10.0	2.50

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Microbac

100413

Report Number: L10080330
Report Date : August 23, 2010

Sample Number: L10080330-03
Client ID: 47DPT06
Matrix: Water
Workgroup Number: WG340090
Collect Date: 08/13/2010 10:30
Sample Tag: DL03

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 10
Units: ug/L

Instrument: HPMS8
Prep Date: 08/18/2010 10:35
Cal Date: 08/05/2010 19:10
Run Date: 08/18/2010 10:35
File ID: 8M363407

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	10.0	5.00
1,2,4-Trimethylbenzene	95-63-6		U	10.0	2.50
1,3,5-Trimethylbenzene	108-67-8		U	10.0	2.50
Vinyl acetate	108-05-4		U	100	25.0
Vinyl chloride	75-01-4	4.19	J	10.0	2.50
o-Xylene	95-47-6		U	10.0	2.50
m-,p-Xylene	179601-23-1		U	10.0	5.00

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	99.2	86	118	
1,2-Dichloroethane-d4	99.4	80	120	
Toluene-d8	99.1	88	110	
4-Bromofluorobenzene	93.9	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

Report Number: L10080330
Report Date : August 23, 2010

Sample Number: L10080330-03
Client ID: 47DPT06
Matrix: Water
Workgroup Number: WG340009
Collect Date: 08/13/2010 10:30
Sample Tag: DL02

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 2.5
Units: ug/L

Instrument: HPMS8
Prep Date: 08/17/2010 20:38
Cal Date: 08/05/2010 19:10
Run Date: 08/17/2010 20:38
File ID: 8M363388

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	25.0	6.25
Benzene	71-43-2		U	2.50	0.313
Bromobenzene	108-86-1		U	2.50	0.313
Bromochloromethane	74-97-5		U	2.50	0.500
Bromodichloromethane	75-27-4		U	2.50	0.625
Bromoform	75-25-2		U	2.50	1.25
Bromomethane	74-83-9		U	2.50	1.25
2-Butanone	78-93-3		U	25.0	6.25
n-Butylbenzene	104-51-8		U	2.50	0.625
sec-Butylbenzene	135-98-8		U	2.50	0.625
tert-Butylbenzene	98-06-6		U	2.50	0.625
Carbon disulfide	75-15-0		U	2.50	1.25
Carbon tetrachloride	56-23-5		U	2.50	0.625
Chlorobenzene	108-90-7		U	2.50	0.313
Chlorodibromomethane	124-48-1		U	2.50	0.625
Chloroethane	75-00-3		U	2.50	1.25
2-Chloroethyl vinyl ether	110-75-8		U	25.0	5.00
Chloroform	67-66-3		U	2.50	0.313
Chloromethane	74-87-3		U	2.50	1.25
2-Chlorotoluene	95-49-8		U	2.50	0.313
4-Chlorotoluene	106-43-4		U	2.50	0.625
1,2-Dibromo-3-chloropropane	96-12-8		U	12.5	2.50
1,2-Dibromoethane	106-93-4		U	2.50	0.625
Dibromomethane	74-95-3		U	2.50	0.625
1,2-Dichlorobenzene	95-50-1		U	2.50	0.313
1,3-Dichlorobenzene	541-73-1		U	2.50	0.625
1,4-Dichlorobenzene	106-46-7		U	2.50	0.313
Dichlorodifluoromethane	75-71-8		U	2.50	0.625
1,1-Dichloroethane	75-34-3	11.2		2.50	0.313
1,2-Dichloroethane	107-06-2		U	2.50	0.625
1,1-Dichloroethene	75-35-4	20.7		2.50	1.25
cis-1,2-Dichloroethene	156-59-2	20.7		2.50	0.625
trans-1,2-Dichloroethene	156-60-5		U	2.50	0.625
1,2-Dichloropropane	78-87-5		U	2.50	0.500
1,3-Dichloropropane	142-28-9		U	2.50	0.500
2,2-Dichloropropane	594-20-7		U	2.50	0.625
cis-1,3-Dichloropropene	10061-01-5		U	2.50	0.625
trans-1,3-Dichloropropene	10061-02-6		U	2.50	1.25
1,1-Dichloropropene	563-58-6		U	2.50	0.625
Ethylbenzene	100-41-4		U	2.50	0.625
2-Hexanone	591-78-6		U	25.0	6.25
Hexachlorobutadiene	87-68-3		U	2.50	0.625
Isopropylbenzene	98-82-8		U	2.50	0.625
p-Isopropyltoluene	99-87-6		U	2.50	0.625
4-Methyl-2-pentanone	108-10-1		U	25.0	6.25
Methylene chloride	75-09-2		U	12.5	0.625
Naphthalene	91-20-3		U	2.50	0.500
n-Propylbenzene	103-65-1		U	2.50	0.313
Styrene	100-42-5		U	2.50	0.313
1,1,1,2-Tetrachloroethane	630-20-6		U	2.50	0.625
1,1,2,2-Tetrachloroethane	79-34-5		U	2.50	0.500
Tetrachloroethene	127-18-4		U	2.50	0.625
Toluene	108-88-3		U	2.50	0.625
1,2,3-Trichlorobenzene	87-61-6		U	2.50	0.375
1,2,4-Trichlorobenzene	120-82-1		U	2.50	0.500
1,1,1-Trichloroethane	71-55-6		U	2.50	0.625
1,1,2-Trichloroethane	79-00-5		U	2.50	0.625
Trichloroethene	79-01-6	625	I	2.50	0.625
Trichlorofluoromethane	75-69-4		U	2.50	0.625

Microbac

Report Number: L10080330
Report Date : August 23, 2010

Sample Number: L10080330-03
Client ID: 47DPT06
Matrix: Water
Workgroup Number: WG340009
Collect Date: 08/13/2010 10:30
Sample Tag: DL02

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 2.5
Units: ug/L

Instrument: HPMS8
Prep Date: 08/17/2010 20:38
Cal Date: 08/05/2010 19:10
Run Date: 08/17/2010 20:38
File ID: 8M363388

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	2.50	1.25
1,2,4-Trimethylbenzene	95-63-6		U	2.50	0.625
1,3,5-Trimethylbenzene	108-67-8		U	2.50	0.625
Vinyl acetate	108-05-4		U	25.0	6.25
Vinyl chloride	75-01-4	4.47		2.50	0.625
o-Xylene	95-47-6		U	2.50	0.625
m-,p-Xylene	179601-23-1		U	2.50	1.25

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	102	86	118	
1,2-Dichloroethane-d4	99.9	80	120	
Toluene-d8	98.1	88	110	
4-Bromofluorobenzene	95.6	86	115	

U Not detected at or above adjusted sample detection limit
I Semiquantitative result (out of instrument calibration range)

00104712

Report Number: L10080330
Report Date : August 23, 2010

Sample Number: L10080330-05
Client ID: TRIP BLANK
Matrix: Water
Workgroup Number: WG340009
Collect Date: 08/13/2010 00:01
Sample Tag: 02

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS8
Prep Date: 08/17/2010 17:57
Cal Date: 08/05/2010 19:10
Run Date: 08/17/2010 17:57
File ID: 8M363383

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2	0.279	J	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

2x = 0.50

ok
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Microbac

Report Number: L10080330
Report Date : August 23, 2010

Sample Number: L10080330-05
Client ID: TRIP BLANK
Matrix: Water
Workgroup Number: WG340009
Collect Date: 08/13/2010 00:01
Sample Tag: 02

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS8
Prep Date: 08/17/2010 17:57
Cal Date: 08/05/2010 19:10
Run Date: 08/17/2010 17:57
File ID: 8M363383

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	99.0	86	118	
1,2-Dichloroethane-d4	96.2	80	120	
Toluene-d8	97.9	88	110	
4-Bromofluorobenzene	94.7	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080330
Blank File ID: 8M363379
Prep Date: 08/17/10 15:48
Analyzed Date: 08/17/10 15:48
Analyst: MES

Work Group: WG340009
Blank Sample ID: WG340009-01
Instrument ID: HPMS8
Method: 8260B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG340009-02	8M363380	08/17/10 16:20	01
LCS2	WG340009-03	8M363381	08/17/10 16:53	01
TRIP BLANK	L10080330-05	8M363383	08/17/10 17:57	02
47DPT03	L10080330-01	8M363386	08/17/10 19:34	01
47DPT05	L10080330-02	8M363387	08/17/10 20:06	01
47DPT06	L10080330-03	8M363388	08/17/10 20:38	DL02

Report Name: BLANK_SUMMARY
PDF File ID: 1758297
Report generated 08/20/2010 16:00

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080330
Blank File ID: 8M363405
Prep Date: 08/18/10 09:30
Analyzed Date: 08/18/10 09:30
Analyst: MES

Work Group: WG340090
Blank Sample ID: WG340090-01
Instrument ID: HPMS8
Method: 8260B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG340090-02	8M363406	08/18/10 10:02	01
47DPT06	L10080330-03	8M363407	08/18/10 10:35	DL03

Report Name: BLANK_SUMMARY
PDF File ID: 1758297
Report generated 08/20/2010 16:00

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080330 Prep Date:08/17/10 15:48 Sample ID:WG340009-01
Instrument ID:HPMS8 Run Date:08/17/10 15:48 Prep Method:5030B/5030C/503
File ID:8M363379 Analyst:MES Method:8260B
Workgroup (AAB#):WG340009 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: HPMS8-05-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.500	1.00	0.500	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name:BLANK
PDF ID: 1758299
20-AUG-2010 16:00

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080330 Prep Date:08/17/10 15:48 Sample ID:WG340009-01
Instrument ID:HPMS8 Run Date:08/17/10 15:48 Prep Method:5030B/5030C/503
File ID:8M363379 Analyst:MES Method:8260B
Workgroup (AAB#):WG340009 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: HPMS8-05-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.200	1.00	0.200	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
Dibromofluoromethane	99.4	86	-	118	PASS
1,2-Dichloroethane-d4	95.1	80	-	120	PASS
Toluene-d8	96.6	88	-	110	PASS
4-Bromofluorobenzene	93.7	86	-	115	PASS

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1758299
20-AUG-2010 16:00

Microbac

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080330 Prep Date:08/18/10 09:30 Sample ID:WG340090-01
Instrument ID:HPMS8 Run Date:08/18/10 09:30 Prep Method:5030B/5030C/503
File ID:8M363405 Analyst:MES Method:8260B
Workgroup (AAB#):WG340090 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: HPMS8-05-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.500	1.00	0.500	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name:BLANK
PDF ID: 1758299
20-AUG-2010 16:00

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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080330 Prep Date:08/18/10 09:30 Sample ID:WG340090-01
Instrument ID:HPMS8 Run Date:08/18/10 09:30 Prep Method:5030B/5030C/503
File ID:8M363405 Analyst:MES Method:8260B
Workgroup (AAB#):WG340090 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: HPMS8-05-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.200	1.00	0.200	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
Dibromofluoromethane	101	86	-	118	PASS
1,2-Dichloroethane-d4	100	80	-	120	PASS
Toluene-d8	98.8	88	-	110	PASS
4-Bromofluorobenzene	94.1	86	-	115	PASS

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1758399
20-AUG-2010 16:00

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080330 Run Date:08/18/2010 Sample ID:WG340090-02
Instrument ID:HPMS8 Run Time:10:02 Prep Method:5030B/5030C/503
File ID:8M363406 Analyst:MES Method:8260B
Workgroup (AAB#):WG340090 Matrix:Water Units:ug/L
QC Key:STD Lot#:STD40901 Cal ID: HPMS8-05-AUG-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acetone	20.0	23.2	116	40 - 180	
Benzene	20.0	21.0	105	80 - 121	
Bromobenzene	20.0	21.3	106	80 - 120	
Bromochloromethane	20.0	22.6	113	65 - 130	
Bromodichloromethane	20.0	22.7	114	80 - 131	
Bromoform	20.0	21.8	109	70 - 130	
Bromomethane	20.0	22.5	112	30 - 145	
2-Butanone	20.0	24.2	121	10 - 170	
n-Butylbenzene	20.0	21.1	105	80 - 131	
sec-Butylbenzene	20.0	21.3	106	80 - 127	
tert-Butylbenzene	20.0	21.2	106	80 - 126	
Carbon disulfide	20.0	22.2	111	58 - 128	
Carbon tetrachloride	20.0	22.5	113	65 - 140	
Chlorobenzene	20.0	20.9	105	80 - 120	
Chlorodibromomethane	20.0	21.7	108	60 - 135	
Chloroethane	20.0	23.9	120	60 - 135	
2-Chloroethyl vinyl ether	20.0	21.5	107	45 - 160	
Chloroform	20.0	20.6	103	80 - 125	
Chloromethane	20.0	23.9	120	40 - 125	
2-Chlorotoluene	20.0	21.4	107	80 - 127	
4-Chlorotoluene	20.0	19.7	98.3	80 - 126	
1,2-Dibromo-3-chloropropane	20.0	20.5	102	50 - 130	
1,2-Dibromoethane	20.0	22.4	112	80 - 129	
Dibromomethane	20.0	22.9	114	75 - 125	
1,2-Dichlorobenzene	20.0	21.3	106	80 - 125	
1,3-Dichlorobenzene	20.0	21.0	105	80 - 120	
1,4-Dichlorobenzene	20.0	20.8	104	80 - 120	
Dichlorodifluoromethane	20.0	26.6	133	40 - 160	
1,1-Dichloroethane	20.0	21.9	110	80 - 125	
1,2-Dichloroethane	20.0	21.7	109	80 - 129	
1,1-Dichloroethene	20.0	22.1	111	80 - 132	
cis-1,2-Dichloroethene	20.0	22.0	110	70 - 125	
trans-1,2-Dichloroethene	20.0	22.3	111	80 - 127	
1,2-Dichloropropane	20.0	22.1	110	80 - 120	
1,3-Dichloropropane	20.0	21.8	109	80 - 120	
2,2-Dichloropropane	20.0	21.3	106	80 - 133	
cis-1,3-Dichloropropene	20.0	21.3	106	70 - 130	
trans-1,3-Dichloropropene	20.0	19.4	97.0	80 - 130	
1,1-Dichloropropene	20.0	21.7	108	75 - 130	
Ethylbenzene	20.0	21.1	106	80 - 122	
2-Hexanone	20.0	22.7	113	55 - 130	

LCS - Modified 03/06/2008
PDF File ID: 1756889
Report generated: 08/19/2010 12:06

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080330 Run Date:08/18/2010 Sample ID:WG340090-02
Instrument ID:HPMS8 Run Time:10:02 Prep Method:5030B/5030C/503
File ID:8M363406 Analyst:MES Method:8260B
Workgroup (AAB#):WG340090 Matrix:Water Units:ug/L
QC Key:STD Lot#:STD40901 Cal ID: HPMS8-05-AUG-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Hexachlorobutadiene	20.0	20.1	100	72 - 132	
Isopropylbenzene	20.0	18.6	92.8	80 - 122	
p-Isopropyltoluene	20.0	20.4	102	80 - 122	
4-Methyl-2-pentanone	20.0	23.4	117	64 - 140	
Methylene chloride	20.0	20.0	99.8	80 - 123	
Naphthalene	20.0	22.1	111	59 - 149	
n-Propylbenzene	20.0	21.1	105	80 - 129	
Styrene	20.0	20.1	100	80 - 123	
1,1,1,2-Tetrachloroethane	20.0	21.5	108	80 - 130	
1,1,2,2-Tetrachloroethane	20.0	23.2	116	79 - 125	
Tetrachloroethene	20.0	22.1	110	80 - 124	
Toluene	20.0	20.9	104	80 - 124	
1,2,3-Trichlorobenzene	20.0	20.4	102	55 - 140	
1,2,4-Trichlorobenzene	20.0	20.4	102	65 - 135	
1,1,1-Trichloroethane	20.0	22.2	111	80 - 134	
1,1,2-Trichloroethane	20.0	22.2	111	80 - 125	
Trichloroethene	20.0	21.9	110	80 - 122	
Trichlorofluoromethane	20.0	22.7	113	62 - 151	
1,2,3-Trichloropropane	20.0	21.7	109	75 - 125	
1,2,4-Trimethylbenzene	20.0	20.9	104	80 - 125	
1,3,5-Trimethylbenzene	20.0	20.6	103	80 - 127	
Vinyl acetate	20.0	11.4	57.2	10 - 190	
Vinyl chloride	20.0	23.9	120	50 - 170	
o-Xylene	20.0	20.7	103	80 - 122	
m-,p-Xylene	40.0	41.8	105	80 - 122	

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	99.4	86 - 118	PASS
1,2-Dichloroethane-d4	98.7	80 - 120	PASS
Toluene-d8	97.0	88 - 110	PASS
4-Bromofluorobenzene	94.9	86 - 115	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1756889
Report generated: 08/19/2010 12:06

Microbac Laboratories Inc.

LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080330 Analyst:MES Prep Method:5030B/5030C/503

Instrument ID:HPMS8 Matrix:Water Method:8260B

Workgroup (AAB#):WG340009 Units:ug/L

QC Key:STD Lot #:STD40901

Sample ID:WG340009-02 LCS File ID:8M363380 Run Date:08/17/2010 16:20

Sample ID:WG340009-03 LCS2 File ID:8M363381 Run Date:08/17/2010 16:53

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	14.6	72.9	20.0	15.1	75.4	3.44	40 - 180	20	
Benzene	20.0	20.9	104	20.0	20.2	101	3.20	80 - 121	20	
Bromobenzene	20.0	21.4	107	20.0	20.3	101	5.29	80 - 120	20	
Bromochloromethane	20.0	22.4	112	20.0	21.9	109	2.28	65 - 130	20	
Bromodichloromethane	20.0	22.2	111	20.0	21.4	107	3.73	80 - 131	20	
Bromoform	20.0	20.1	101	20.0	19.8	99.2	1.56	70 - 130	20	
Bromomethane	20.0	23.9	120	20.0	22.9	115	4.22	30 - 145	20	
2-Butanone	20.0	17.3	86.4	20.0	16.4	82.0	5.15	10 - 170	20	
n-Butylbenzene	20.0	21.2	106	20.0	20.2	101	4.99	80 - 131	20	
sec-Butylbenzene	20.0	21.3	107	20.0	20.4	102	4.38	80 - 127	20	
tert-Butylbenzene	20.0	21.7	108	20.0	20.7	103	4.81	80 - 126	20	
Carbon disulfide	20.0	21.3	107	20.0	20.6	103	3.50	58 - 128	20	
Carbon tetrachloride	20.0	22.3	111	20.0	21.1	106	5.27	65 - 140	20	
Chlorobenzene	20.0	20.8	104	20.0	20.4	102	2.01	80 - 120	20	
Chlorodibromomethane	20.0	21.0	105	20.0	20.8	104	0.939	60 - 135	20	
Chloroethane	20.0	24.0	120	20.0	22.9	114	4.78	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	19.6	98.0	20.0	19.5	97.3	0.675	45 - 160	20	
Chloroform	20.0	20.4	102	20.0	19.4	97.1	4.74	80 - 125	20	
Chloromethane	20.0	23.9	119	20.0	23.0	115	3.92	40 - 125	20	
2-Chlorotoluene	20.0	21.6	108	20.0	18.0	90.0	18.3	80 - 127	20	
4-Chlorotoluene	20.0	19.6	98.0	20.0	21.8	109	10.5	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	16.9	84.7	20.0	16.2	81.2	4.30	50 - 130	20	
1,2-Dibromoethane	20.0	21.0	105	20.0	20.8	104	0.635	80 - 129	20	
Dibromomethane	20.0	21.5	107	20.0	21.5	108	0.329	75 - 125	20	
1,2-Dichlorobenzene	20.0	21.0	105	20.0	20.2	101	3.67	80 - 125	20	
1,3-Dichlorobenzene	20.0	20.9	105	20.0	20.2	101	3.36	80 - 120	20	
1,4-Dichlorobenzene	20.0	20.9	105	20.0	20.2	101	3.54	80 - 120	20	
Dichlorodifluoromethane	20.0	25.9	130	20.0	24.7	124	4.80	40 - 160	20	
1,1-Dichloroethane	20.0	21.6	108	20.0	20.6	103	4.56	80 - 125	20	
1,2-Dichloroethane	20.0	20.6	103	20.0	19.8	99.0	3.76	80 - 129	20	
1,1-Dichloroethene	20.0	21.6	108	20.0	20.6	103	4.67	80 - 132	20	
cis-1,2-Dichloroethene	20.0	21.7	108	20.0	20.9	105	3.61	70 - 125	20	
trans-1,2-Dichloroethene	20.0	22.0	110	20.0	20.7	103	5.99	80 - 127	20	
1,2-Dichloropropane	20.0	21.6	108	20.0	21.3	106	1.54	80 - 120	20	
1,3-Dichloropropane	20.0	20.7	103	20.0	20.4	102	1.26	80 - 120	20	
2,2-Dichloropropane	20.0	20.6	103	20.0	19.5	97.3	5.58	80 - 133	20	
cis-1,3-Dichloropropene	20.0	20.5	103	20.0	20.1	101	1.85	70 - 130	20	
trans-1,3-Dichloropropene	20.0	18.3	91.3	20.0	18.1	90.7	0.629	80 - 130	20	
1,1-Dichloropropene	20.0	21.2	106	20.0	20.2	101	4.89	75 - 130	20	
Ethylbenzene	20.0	21.3	107	20.0	20.5	102	4.09	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008

PDF File ID:1754876

Report generated: 08/20/2010 16:00

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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080330 Analyst:MES Prep Method:5030B/5030C/503
Instrument ID:HPMS8 Matrix:Water Method:8260B
Workgroup (AAB#):WG340009 Units:ug/L
QC Key:STD Lot #:STD40901

Sample ID:WG340009-02 LCS File ID:8M363380 Run Date:08/17/2010 16:20
Sample ID:WG340009-03 LCS2 File ID:8M363381 Run Date:08/17/2010 16:53

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	18.0	90.1	20.0	17.5	87.4	3.06	55 - 130	20	
Hexachlorobutadiene	20.0	19.8	98.8	20.0	19.1	95.6	3.35	72 - 132	20	
Isopropylbenzene	20.0	18.7	93.5	20.0	18.1	90.4	3.40	80 - 122	20	
p-Isopropyltoluene	20.0	20.7	103	20.0	19.7	98.3	4.98	80 - 122	20	
4-Methyl-2-pentanone	20.0	19.5	97.7	20.0	18.2	91.0	7.13	64 - 140	20	
Methylene chloride	20.0	19.9	99.7	20.0	19.0	95.1	4.75	80 - 123	20	
Naphthalene	20.0	19.1	95.5	20.0	18.7	93.7	1.92	59 - 149	20	
n-Propylbenzene	20.0	21.2	106	20.0	20.2	101	5.02	80 - 129	20	
Styrene	20.0	20.1	100	20.0	19.8	98.8	1.70	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	21.6	108	20.0	20.8	104	3.89	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	20.8	104	20.0	20.1	100	3.73	79 - 125	20	
Tetrachloroethene	20.0	22.3	111	20.0	21.3	107	4.37	80 - 124	20	
Toluene	20.0	20.7	104	20.0	19.9	99.7	3.96	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	18.4	91.9	20.0	17.8	89.1	3.07	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	19.8	99.2	20.0	18.7	93.3	6.07	65 - 135	20	
1,1,1-Trichloroethane	20.0	22.0	110	20.0	20.6	103	6.52	80 - 134	20	
1,1,2-Trichloroethane	20.0	20.9	104	20.0	20.5	103	1.73	80 - 125	20	
Trichloroethene	20.0	21.8	109	20.0	21.0	105	3.78	80 - 122	20	
Trichlorofluoromethane	20.0	22.8	114	20.0	21.6	108	5.57	62 - 151	20	
1,2,3-Trichloropropane	20.0	19.8	99.2	20.0	19.9	99.3	0.120	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	21.0	105	20.0	20.3	102	3.56	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	20.9	105	20.0	20.0	99.8	4.82	80 - 127	20	
Vinyl acetate	20.0	10.2	50.9	20.0	9.82	49.1	3.73	10 - 190	20	
Vinyl chloride	20.0	24.2	121	20.0	23.1	115	4.52	50 - 170	20	
o-Xylene	20.0	20.7	103	20.0	20.2	101	2.25	80 - 122	20	
m-,p-Xylene	40.0	41.9	105	40.0	40.6	102	3.13	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	93.4	93.6	80 - 120	PASS
Dibromofluoromethane	98.2	98.4	86 - 118	PASS
4-Bromofluorobenzene	95.9	94.0	86 - 115	PASS
Toluene-d8	98.0	97.5	88 - 110	PASS

* EXCEEDS %REC LIMIT

\# EXCEEDS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID:1754876
Report generated: 08/20/2010 16:00

2.2.1 LC/MS Data (6850)

2.2.1.1 Summary Data

LABORATORY REPORT

L10080330

08/23/10 10:25

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47DPT03	L10080330-01	6850	1	14-AUG-10
47DPT05	L10080330-02	6850	1	14-AUG-10
47DPT06	L10080330-03	6850	1	14-AUG-10
47DPT01	L10080330-04	6850	1	14-AUG-10

00104728

Report Number: L10080330
Report Date : August 23, 2010

Sample Number: L10080330-01
Client ID: 47DPT03
Matrix: Water
Workgroup Number: WG339871
Collect Date: 08/13/2010 08:10
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/L

Instrument: LCMS1
Prep Date: 08/16/2010 12:38
Cal Date: 08/11/2010 16:22
Run Date: 08/16/2010 15:22
File ID: 1LM.LM04603

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	0.191	J	0.200	0.100

J

J The analyte was positively identified, but the quantitation was below the RL

Microbac

Report Number: L10080330
Report Date : August 23, 2010

Sample Number: L10080330-02
Client ID: 47DPT05
Matrix: Water
Workgroup Number: WG339871
Collect Date: 08/13/2010 09:50
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/L

Instrument: LCMS1
Prep Date: 08/16/2010 12:38
Cal Date: 08/11/2010 16:22
Run Date: 08/16/2010 15:45
File ID: 1LM.LM04604

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	0.200	0.100

U Not detected at or above adjusted sample detection limit

Microbac

Report Number: L10080330
Report Date : August 23, 2010

Sample Number: L10080330-03
Client ID: 47DPT06
Matrix: Water
Workgroup Number: WG339871
Collect Date: 08/13/2010 10:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/L

Instrument: LCMS1
Prep Date: 08/16/2010 12:38
Cal Date: 08/11/2010 16:22
Run Date: 08/16/2010 16:09
File ID: 1LM.LM04605

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	0.200	0.100

U Not detected at or above adjusted sample detection limit

Report Number: L10080330
Report Date : August 23, 2010

Sample Number: L10080330-04
Client ID: 47DPT01
Matrix: Water
Workgroup Number: WG339871
Collect Date: 08/13/2010 11:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/L

Instrument: LCMS1
Prep Date: 08/16/2010 12:38
Cal Date: 08/11/2010 16:22
Run Date: 08/16/2010 16:56
File ID: 1LM.LM04607

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	0.300		0.200	0.100

Microbac

2.2.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080330
Blank File ID: 1LM.LM04600
Prep Date: 08/16/10 12:38
Analyzed Date: 08/16/10 14:12
Analyst: WTD

Work Group: WG339871
Blank Sample ID: WG339871-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG339871-05	1LM.LM04598	08/16/10 13:25	01
MCT	WG339871-01	1LM.LM04599	08/16/10 13:48	01
LCS	WG339871-03	1LM.LM04601	08/16/10 14:35	01
LCS2	WG339871-04	1LM.LM04602	08/16/10 14:59	01
47DPT03	L10080330-01	1LM.LM04603	08/16/10 15:22	01
47DPT05	L10080330-02	1LM.LM04604	08/16/10 15:45	01
47DPT06	L10080330-03	1LM.LM04605	08/16/10 16:09	01
47DPT01	L10080330-04	1LM.LM04607	08/16/10 16:56	01
QCMRL	WG339871-06	1LM.LM04610	08/16/10 18:06	01
QCMRL	WG339871-07	1LM.LM04619	08/16/10 21:37	01

Report Name: BLANK_SUMMARY
PDF File ID: 1754605
Report generated 08/17/2010 15:41

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080330 Prep Date:08/16/10 12:38 Sample ID:WG339871-02
Instrument ID:LCMS1 Run Date:08/16/10 14:12 Prep Method:6850
File ID:1LM.LM04600 Analyst:WTD Method:6850
Workgroup (AAB#):WG339871 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-11-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.100	0.200	0.100	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1754606
17-AUG-2010 15:41

Microbac Laboratories Inc.

LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080330 Analyst:WTD Prep Method:6850

Instrument ID:LCMS1 Matrix:Water Method:6850

Workgroup (AAB#):WG339871 Units:ug/L

QC Key:STD Lot #:STD40906

Sample ID:WG339871-03 LCS File ID:1LM.LM04601 Run Date:08/16/2010 14:35

Sample ID:WG339871-04 LCS2 File ID:1LM.LM04602 Run Date:08/16/2010 14:59

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	0.200	0.189	94.5	0.200	0.182	91.0	3.77	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008

PDF File ID:1754607

Report generated: 08/17/2010 15:41

Conductivity Probe Calibration Check: 1422/1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
LWG33987-01 MCT	10,650	NA
-02 Blk	0.0	↓
-03 LCS	0.0	
-04 LCSD	0.0	
L10080330-01	9,670	
-02	1918	
-03	1415	
-04	703	

Walter Dietz
Analyst

8-16-10 / 1345
Date/Time

DCN#84057

00104737

Validation Qualifier Data Entry Verification

Run Date: September 20, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47SB-25D-01(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	80.8	Percent		Y	Y								L10080385-01	08:30
	SW6850	NONE	N	0	100	PERCHLORATE	2760	ug/kg		Y	Y								L10080385-01	10:07
47SB-25D-03(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	85.4	Percent		Y	Y								L10080385-02	08:30
	SW6850	NONE	N	0	1	PERCHLORATE	1.15	ug/kg	U	N	Y		U						L10080385-02	23:34
47SB-25D-04(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	81.8	Percent		Y	Y								L10080385-03	08:30
	SW6850	NONE	N	0	100	PERCHLORATE	2570	ug/kg		Y	Y								L10080385-03	10:31
47SB-25D-05(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	83.8	Percent		Y	Y								L10080385-04	08:30
	SW6850	NONE	N	0	100	PERCHLORATE	4610	ug/kg		Y	Y								L10080385-04	10:54

ok

dr

092010

2100803S5

00104738

Chain of Custody

NO. 6003

(INTERVAL GW/VZ)

Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

Laboratory Name: Environmental Waste Solutions C/O MICROBAC Address: 158 STARLITE DR. MARIETTA, OH. 45750 Contact: Stephanie MOSSBURG

Project Name LHAAP | Project Location KARNACK, TX.

Project No. 117591.0009A130 | Project Contact JEN HOANG | Project Telephone No. 281-531-3108

Point of Contact: SUSAN OLLER | Telephone No. 281-989-3544

Project Manager/Supervisor: PRAVEEN SRIVASTAV

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	Perchlorate method 6850	Remarks
1	475B-25D-01(GW/VZ)	8/16/10	8:10		✓	S	SITE 47	1	✓	
2	475B-25D-03(GW/VZ)	8/16/10	10:30		✓	S	SITE 47	1	✓	
3	475B-25D-04(GW/VZ)	8/16/10	13:00		✓	S	SITE 47	1	✓	
4	475B-25D-05(GW/VZ)	8/16/10	13:20		✓	S	SITE 47	1	✓	
5										
6										
7										
8										
9										
10										

Analysis and Method Desired (Indicate separate containers)

Transfers Relinquished By (signature)	Date/Time	Transfers Accepted By (signature)	Date/Time
Scott Beesley	8/16/10 4:30		

Special Instructions: 24 HR. TAT

Microbac OVD
Received: 08/17/2010 09:56
By: ROBIN KLINGER
Robin L. Klinger

221000008240

dEx Airbill No.:

Sampler's Signature: Scott Beesley

TAT: ____ Standard ____ Rush Date ____

____Y ____N ____Cold

Form Number: 433_2
Rev. 10-19-07

Page 60

00104739

1000008240

COOLER INSPECTION

Microbac®

Received: 08/17/2010 09:56
Delivery Method: UPS
Opened By: Robin Klinger
Comments:

Login(s): L10080385|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0011384	H	5.0	1Z66V7250192732629	6003	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (<6mm)?

Discrepancies:

Look closer. Go further. Do more.

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080385
Account: 2773
Project: 2773.025
Samples: 4
Due Date: 18-AUG-2010

Samplenum	Container ID	Products
L10080385-01	726041	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	17-AUG-2010 11:19	JKT	
2	ANALYZ	W1	WET	17-AUG-2010 11:38	JDH	RLK
3	STORE	WET	W1	17-AUG-2010 11:48	RLK	JDH
4	ANALYZ	W1	SEM	17-AUG-2010 12:42	WTD	RLK
5	STORE	SEM	A2	18-AUG-2010 09:09	RLK	WTD

Samplenum	Container ID	Products
L10080385-02	726042	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	17-AUG-2010 11:19	JKT	
2	ANALYZ	W1	WET	17-AUG-2010 11:38	JDH	RLK
3	STORE	WET	W1	17-AUG-2010 11:48	RLK	JDH
4	ANALYZ	W1	SEM	17-AUG-2010 12:42	WTD	RLK
5	STORE	SEM	A2	18-AUG-2010 09:09	RLK	WTD

Samplenum	Container ID	Products
L10080385-03	726043	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	17-AUG-2010 11:19	JKT	
2	ANALYZ	W1	WET	17-AUG-2010 11:38	JDH	RLK
3	STORE	WET	W1	17-AUG-2010 11:48	RLK	JDH
4	ANALYZ	W1	SEM	17-AUG-2010 12:42	WTD	RLK
5	STORE	SEM	A2	18-AUG-2010 09:09	RLK	WTD

Samplenum	Container ID	Products
L10080385-04	726044	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	17-AUG-2010 11:19	JKT	
2	ANALYZ	W1	WET	17-AUG-2010 11:38	JDH	RLK
3	STORE	WET	W1	17-AUG-2010 11:48	RLK	JDH
4	ANALYZ	W1	SEM	17-AUG-2010 12:42	WTD	RLK
5	STORE	SEM	A2	18-AUG-2010 09:09	RLK	WTD

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0l/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080385

08/27/10 10:06

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-25D-01(GW/VZ)	L10080385-01	6850	100	17-AUG-10
47SB-25D-03(GW/VZ)	L10080385-02	6850	1	17-AUG-10
47SB-25D-04(GW/VZ)	L10080385-03	6850	100	17-AUG-10
47SB-25D-05(GW/VZ)	L10080385-04	6850	100	17-AUG-10

Report Number: L10080385
Report Date : August 27, 2010

Sample Number: L10080385-01
Client ID: 47SB-25D-01(GW/VZ)
Matrix: Soil
Workgroup Number: WG340029
Collect Date: 08/16/2010 08:10
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 100
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/17/2010 13:41
Cal Date: 08/17/2010 16:32
Run Date: 08/18/2010 10:07
File ID: 1LM.LM04669
Percent Solid: 80.8

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	2760		247	124

09 07/10

Report Number: L10080385
Report Date : August 27, 2010

Sample Number: L10080385-02
Client ID: 47SB-25D-03(GW/VZ)
Matrix: Soil
Workgroup Number: WG340029
Collect Date: 08/16/2010 10:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/17/2010 13:41
Cal Date: 08/17/2010 16:32
Run Date: 08/17/2010 23:34
File ID: 1LM.LM04659
Percent Solid: 85.4

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.30	1.15

U Not detected at or above adjusted sample detection limit

Microbac

00104749

Report Number: L10080385
Report Date : August 27, 2010

Sample Number: L10080385-03
Client ID: 47SB-25D-04(GW/VZ)
Matrix: Soil
Workgroup Number: WG340029
Collect Date: 08/16/2010 13:00
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 100
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/17/2010 13:41
Cal Date: 08/17/2010 16:32
Run Date: 08/18/2010 10:31
File ID: 1LM.LM04670
Percent Solid: 81.8

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	2570		241	120

Microbac

Report Number: L10080385
Report Date : August 27, 2010

Sample Number: L10080385-04
Client ID: 47SB-25D-05(GW/VZ)
Matrix: Soil
Workgroup Number: WG340029
Collect Date: 08/16/2010 13:20
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 100
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/17/2010 13:41
Cal Date: 08/17/2010 16:32
Run Date: 08/18/2010 10:54
File ID: 1LM.LM04671
Percent Solid: 83.8

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	4610		232	116

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080385
Blank File ID: 1LM.LM04655
Prep Date: 08/17/10 13:41
Analyzed Date: 08/17/10 22:00
Analyst: WTD

Work Group: WG340029
Blank Sample ID: WG340029-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG340029-05	1LM.LM04652	08/17/10 20:50	01
MCT	WG340029-01	1LM.LM04654	08/17/10 21:37	01
LCS	WG340029-03	1LM.LM04656	08/17/10 22:24	01
LCS2	WG340029-04	1LM.LM04657	08/17/10 22:47	01
47SB-25D-03(GW/VZ)	L10080385-02	1LM.LM04659	08/17/10 23:34	01
QCMRL	WG340029-06	1LM.LM04664	08/18/10 01:31	01
QCMRL	WG340029-07	1LM.LM04668	08/18/10 09:44	01
47SB-25D-01(GW/VZ)	L10080385-01	1LM.LM04669	08/18/10 10:07	DL01
47SB-25D-04(GW/VZ)	L10080385-03	1LM.LM04670	08/18/10 10:31	DL01
47SB-25D-05(GW/VZ)	L10080385-04	1LM.LM04671	08/18/10 10:54	DL01
QCMRL	WG340029-08	1LM.LM04673	08/18/10 11:41	01

Report Name: BLANK_SUMMARY
PDF File ID: 1755303
Report generated 08/19/2010 11:01

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080385 Prep Date:08/17/10 13:41 Sample ID:WG340029-02
Instrument ID:LCMS1 Run Date:08/17/10 22:00 Prep Method:6850
File ID:1LM.LM04655 Analyst:WTD Method:6850
Workgroup (AAB#):WG340029 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-17-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.997	1.99	0.997	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1755304
19-AUG-2010 11:01

Microbac Laboratories Inc.

LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080385 Analyst: WTD Prep Method: 6850

Instrument ID: LCMS1 Matrix: Soil Method: 6850

Workgroup (AAB#): WG340029 Units: ug/kg

QC Key: STD Lot #: STD40906

Sample ID: WG340029-03 LCS File ID: 1LM.LM04656 Run Date: 08/17/2010 22:24

Sample ID: WG340029-04 LCS2 File ID: 1LM.LM04657 Run Date: 08/17/2010 22:47

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	1.98	2.08	105	2.00	1.89	94.5	9.69	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008

PDF File ID: 1755305

Report generated: 08/19/2010 11:01

Conductivity Probe Calibration Check: iM21 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG-340029-01 MCT	10,410	NA
-02 BLK	4.2	↓
-03 LCS	5.5	
-04 LCSD	3.9	
L10080385-01	15.2	
-02	8.8	
-03	11.3	
-04	5.4	
L10080389-02	3.9	

Waade T. Dr
Analyst

8-17-10 / 16:55
Date/Time

DCN#84070

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080385

08/27/10 10:06

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-25D-01(GW/VZ)	L10080385-01	D2216-90	1	17-AUG-10
47SB-25D-03(GW/VZ)	L10080385-02	D2216-90	1	17-AUG-10
47SB-25D-04(GW/VZ)	L10080385-03	D2216-90	1	17-AUG-10
47SB-25D-05(GW/VZ)	L10080385-04	D2216-90	1	17-AUG-10

Report Number: L10080385
Report Date : August 27, 2010

Sample Number: L10080385-01
Client ID: 47SB-25D-01(GW/VZ)
Matrix: Soil
Workgroup Number: WG339994
Collect Date: 08/16/2010 08:10
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/18/2010 08:30
Cal Date:
Run Date: 08/18/2010 08:30
File ID: B1.339994-0101

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	80.8		1.00	1.00

Report Number: L10080385
Report Date : August 27, 2010

Sample Number: L10080385-02
Client ID: 47SB-25D-03(GW/VZ)
Matrix: Soil
Workgroup Number: WG339994
Collect Date: 08/16/2010 10:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/18/2010 08:30
Cal Date:
Run Date: 08/18/2010 08:30
File ID: B1.339994-0102

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	85.4		1.00	1.00

00104761

Report Number: L10080385
Report Date : August 27, 2010

Sample Number: L10080385-03
Client ID: 47SB-25D-04(GW/VZ)
Matrix: Soil
Workgroup Number: WG339994
Collect Date: 08/16/2010 13:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/18/2010 08:30
Cal Date:
Run Date: 08/18/2010 08:30
File ID: B1.339994-0103

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	81.8		1.00	1.00

Microbac

Report Number: L10080385
Report Date : August 27, 2010

Sample Number: L10080385-04
Client ID: 47SB-25D-05(GW/VZ)
Matrix: Soil
Workgroup Number: WG339994
Collect Date: 08/16/2010 13:20
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/18/2010 08:30
Cal Date:
Run Date: 08/18/2010 08:30
File ID: B1.339994-0104

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	83.8		1.00	1.00

Microbac®

Validation Qualifier Data Entry Verification

Run Date: September 20, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47SB-25D-02(9-11)	D2216	NONE	N	0	1	PERCENT SOLIDS	84.0	Percent		Y	Y								L10080389-02	08:30
	SW6850	NONE	N	0	1	PERCHLORATE	2.45	ug/kg		Y	Y								L10080389-02	00:44

OK
09 2010

L10080389 00104764

Chain of Custody

NO. 5900

(INTERVAL 9-11)

Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

Laboratory Name: Environmental Waste Solutions C/O MICROBAC Address: 158 STARLITE DR. MARIETTA, OH. 45750 Contact: Stephanie MOSSBURG

Project Name: LHAAP Project Location: KARNACK, TX.

Project No.: 117591.0004A130 Project Contact: JEN HOANG Project Telephone No.: 281-531-3108

Point of Contact: SUSAN OLLER Telephone No.: 281-989-3544

Project Manager/Supervisor: PRAVEEN SRIVASTAV

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	Analysis and Method Desired (Indicate separate containers): method 6850 PERCHLORATE	Remarks
1	475B-25D-02(9-11)	8/13/10	13:05		✓	S	SITE 47	1	✓	
2	475B-25D-01 (9-11)	8/16/10	08:05		✓	S	SITE 47	1	✓	
3	475B-25D-03(9-11)	8/16/10	10:15		✓	S	SITE 47	1	✓	
4	475B-25D-04 (9-11)	8/16/10	12:55		✓	S	SITE 47	1	✓	
5	475B-25D-05 (9-11)	8/16/10	13:15		✓	S	SITE 47	1	✓	
6										
7										
8										
9										
10										

Transfers Relinquished By (signature)	Date/Time	Transfers Accepted By (signature)	Date/Time
Scott Beesinger	8/16/10 4:30		

Special Instructions: TAT; HOLD FOR GW/VZ RESULTS

FedEx Airbill No.: 221000009236

Sampler's Signature: Scott Beesinger

Microbac OVD
Received: 08/17/2010 09:56
By: ROBIN KLINGER
Robin L. Klinger

TAT: ____ Standard ____ Rush Date ____

tion ____ Y ____ N ____ Cold

Form Number: 433_2
Rev. 10-19-07

COOLER INSPECTION

Microbac

Received: 08/17/2010 09:56
Delivery Method: UPS
Opened By: Robin Klinger
Comments:

Login(s): L10080389|L10080390|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0011384	H	5.0	1Z66V7250192732629	5900	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (<6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080389
Account: 2773
Project: 2773.025
Samples: 1
Due Date: 18-AUG-2010

Samplenum	Container ID	Products
L10080389-02	726082	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	17-AUG-2010 12:21	JKT	
2	ANALYZ	W1	SEM	17-AUG-2010 12:42	WTD	RLK
3	STORE	SEM	A2	18-AUG-2010 09:09	RLK	WTD

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080389

08/27/10 10:06

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-25D-02(9-11)	L10080389-02	6850	1	17-AUG-10

Report Number: L10080389
Report Date : August 27, 2010

Sample Number: L10080389-02
Client ID: 47SB-25D-02(9-11)
Matrix: Soil
Workgroup Number: WG340029
Collect Date: 08/13/2010 13:05
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/17/2010 13:41
Cal Date: 08/17/2010 16:32
Run Date: 08/18/2010 00:44
File ID: 1LM.LM04662
Percent Solid: 84.0

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	2.45		2.31	1.15

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080389
Blank File ID: 1LM.LM04655
Prep Date: 08/17/10 13:41
Analyzed Date: 08/17/10 22:00
Analyst: WTD

Work Group: WG340029
Blank Sample ID: WG340029-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG340029-05	1LM.LM04652	08/17/10 20:50	01
MCT	WG340029-01	1LM.LM04654	08/17/10 21:37	01
LCS	WG340029-03	1LM.LM04656	08/17/10 22:24	01
LCS2	WG340029-04	1LM.LM04657	08/17/10 22:47	01
47SB-25D-02 (9-11)	L10080389-02	1LM.LM04662	08/18/10 00:44	01
QCMRL	WG340029-06	1LM.LM04664	08/18/10 01:31	01

Report Name: BLANK_SUMMARY
PDF File ID: 1755330
Report generated 08/18/2010 10:51

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080389 Prep Date:08/17/10 13:41 Sample ID:WG340029-02
Instrument ID:LCMS1 Run Date:08/17/10 22:00 Prep Method:6850
File ID:1LM.LM04655 Analyst:WTD Method:6850
Workgroup (AAB#):WG340029 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID:LCMS1-17-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.997	1.99	0.997	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1755331
18-AUG-2010 10:51

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080389 Analyst:WTD Prep Method:6850
Instrument ID:LCMS1 Matrix:Soil Method:6850
Workgroup (AAB#):WG340029 Units:ug/kg
QC Key:STD Lot #:STD40906

Sample ID:WG340029-03 LCS File ID:1LM.LM04656 Run Date:08/17/2010 22:24
Sample ID:WG340029-04 LCS2 File ID:1LM.LM04657 Run Date:08/17/2010 22:47

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	1.98	2.08	105	2.00	1.89	94.5	9.69	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1755332
Report generated: 08/18/2010 10:51

Conductivity Probe Calibration Check: M2 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG 340029-01 MCT	10,410	NA
-02 Blk	4.2	
-03 LCS	5.5	
-04 LCSD	3.9	
L10080385-01	15.2	
-02	8.8	
-03	11.3	
-04	5.4	
L10080389-02	3.9	

Analyst

8-17-10 / 16:55
Date/Time

DCN#84070

00104779

Validation Qualifier Data Entry Verification

Run Date: September 20, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47SB-25D-03(9-11)	D2216	NONE	N	0	1	PERCENT SOLIDS	87.7	Percent		Y	Y								L10080390-02	08:31
	SW6850	NONE	N	0	1	PERCHLORATE	1.13	ug/kg	U	N	Y		U						L10080390-02	17:56

ok
09/20/10

2100803900 00104780

Chain of Custody

NO. 5900

(INTERVAL 9-11)

Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

Laboratory Name: Environmental Waste Solutions C/O MICROBAC Address: 158 STARLITE DR. MARIETTA, OH. 45750 Contact: Stephanie MOSSBURG

Project Name: LHAAP Project Location: KARNACK, TX.

Project No.: 117591.0009A130 Project Contact: JEN HOANG Project Telephone No.: 281-531-3108

Point of Contact: SUSAN OLLER Telephone No.: 281-989-3544

Project Manager/Supervisor: PRAVEEN SRIVASTAV

Analysis and Method Desired (Indicate separate containers)

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	Method 6850 Perchlorate	Remarks
1	47SB-25D-02(9-11)	8/13/10	13:05		✓	S	SITE 47	1	✓	
2	47SB-25D-01 (9-11)	8/16/10	08:05		✓	S	SITE 47	1	✓	
3	47SB-25D-03(9-11)	8/16/10	10:15		✓	S	SITE 47	1	✓	
4	47SB-25D-04 (9-11)	8/16/10	12:55		✓	S	SITE 47	1	✓	
5	47SB-25D-05 (9-11)	8/16/10	13:15		✓	S	SITE 47	1	✓	
6										
7										
8										
9										
10										

Transfers Relinquished By (signature)	Date/Time	Transfers Accepted By (signature)	Date/Time
Scott Beasinger	8/16/10 4:30		

TAT: ____ Standard ____ Rush Date ____

Microbac OVD
Received: 08/17/2010 09:56
By: ROBIN KLINGER
221000009236
Robin L. Klinger

Special Instructions: TAT; HOLD FOR GW/VZ RESULTS

FedEx Airbill No.:

Sampler's Signature: Scott Beasinger

tion ____ Y ____ N ____ Cold

Form Number: 433_2
Rev. 10-19-07

COOLER INSPECTION

Microbac®

Received: 08/17/2010 09:56
Delivery Method: UPS
Opened By: Robin Klinger
Comments:

Login(s): L10080389|L10080390|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0011384	H	5.0	1Z66V7250192732629	5900	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (<6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080390
Account: 2773
Project: 2773.025
Samples: 4
Due Date: 19-AUG-2010

Samplenum	Container ID	Products
L10080390-01	726083	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1/hold	17-AUG-2010 12:21	JKT	

Samplenum	Container ID	Products
L10080390-02	726084	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1/hold	17-AUG-2010 12:21	JKT	

Samplenum	Container ID	Products
L10080390-02	726572	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-AUG-2010 11:54	RLK	
2	ANALYZ	W1	SEM	18-AUG-2010 11:59	WTD	RLK
3	STORE	SEM	W1	18-AUG-2010 12:12	RLK	WTD
4	STORE	WET	A1	19-AUG-2010 09:13	JKT	JDH

Samplenum	Container ID	Products
L10080390-03	726085	SPECIA

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1/hold	17-AUG-2010 12:21	JKT	

Samplenum	Container ID	Products
L10080390-04	726086	SPECIA

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1/hold	17-AUG-2010 12:21	JKT	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0l/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080390

08/27/10 10:05

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-25D-03(9-11)	L10080390-02	6850	1	17-AUG-10

Report Number: L10080390
Report Date : August 27, 2010

Sample Number: L10080390-02
Client ID: 47SB-25D-03(9-11)
Matrix: Soil
Workgroup Number: WG340152
Collect Date: 08/13/2010 10:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/18/2010 08:57
Cal Date: 08/17/2010 16:32
Run Date: 08/18/2010 17:56
File ID: 1LM.LM04689
Percent Solid: 87.7

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.27	1.13

U Not detected at or above adjusted sample detection limit

09/07/10

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080390
Blank File ID: 1LM.LM04686
Prep Date: 08/18/10 08:57
Analyzed Date: 08/18/10 16:46
Analyst: WTD

Work Group: WG340152
Blank Sample ID: WG340152-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG340152-05	1LM.LM04683	08/18/10 15:35	01
MCT	WG340152-01	1LM.LM04685	08/18/10 16:22	01
LCS	WG340152-03	1LM.LM04687	08/18/10 17:09	01
LCS2	WG340152-04	1LM.LM04688	08/18/10 17:33	01
47SB-25D-03(9-11)	L10080390-02	1LM.LM04689	08/18/10 17:56	01
QCMRL	WG340152-06	1LM.LM04694	08/18/10 19:53	01

Report Name: BLANK_SUMMARY
PDF File ID: 1756216
Report generated 08/19/2010 11:07

Microbac®

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080390 Prep Date:08/18/10 08:57 Sample ID:WG340152-02
Instrument ID:LCMS1 Run Date:08/18/10 16:46 Prep Method:6850
File ID:1LM.LM04686 Analyst:WTD Method:6850
Workgroup (AAB#):WG340152 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-17-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.982	1.96	0.982	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1756217
19-AUG-2010 11:07

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080390 Analyst:WTD Prep Method:6850
Instrument ID:LCMS1 Matrix:Soil Method:6850
Workgroup (AAB#):WG340152 Units:ug/kg
QC Key:STD Lot #:STD40906
Sample ID:WG340152-03 LCS File ID:1LM.LM04687 Run Date:08/18/2010 17:09
Sample ID:WG340152-04 LCS2 File ID:1LM.LM04688 Run Date:08/18/2010 17:33

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	1.99	1.63	82.0	1.96	1.80	92.0	9.98	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1756218
Report generated: 08/19/2010 11:07

Conductivity Probe Calibration Check:
1417 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level:
10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG340152-01 MCT	10,660	NA
-02 BLK	5.0	
-03 LCS	5.1	
-04 LCSD	5.7	
L10080390-02	3.6	
L10080402-01	19.8	

Analyst

8-18-10 / 15:40
~~8-17~~
Date/Time

DCN#84086

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080390

08/27/10 10:05

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-25D-03(9-11)	L10080390-02	D2216-90	1	17-AUG-10

Report Number: L10080390
Report Date : August 27, 2010

Sample Number: L10080390-02
Client ID: 47SB-25D-03(9-11)
Matrix: Soil
Workgroup Number: WG340163
Collect Date: 08/13/2010 10:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/19/2010 08:31
Cal Date:
Run Date: 08/19/2010 08:31
File ID: B1.340163-0101

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	87.7		1.00	1.00

00104799

Validation Qualifier Data Entry Verification

Run Date: September 20, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47SB-25D-01(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	88.3	Percent		Y	Y								L10080402-02	08:34
	SW6850	NONE	N	0	1	PERCHLORATE	97.6	ug/kg		Y	Y								L10080402-02	21:07
47SB-25D-02(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	84.4	Percent		Y	Y								L10080402-01	08:31
	SW6850	NONE	N	0	1	PERCHLORATE	1.17	ug/kg	U	N	Y		U						L10080402-01	18:20
47SB-25D-04(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	87.1	Percent		Y	Y								L10080402-04	08:34
	SW6850	NONE	N	0	1	PERCHLORATE	18.4	ug/kg		Y	Y								L10080402-04	21:33
47SB-25D-05(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	91.7	Percent		Y	Y								L10080402-05	08:34
	SW6850	NONE	N	0	1	PERCHLORATE	1.09	ug/kg	U	N	Y		U						L10080402-05	22:00

9/20/10

ok

Chain of Custody

NO. 6001

Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

(INTERVAL 4-6)

Laboratory Name: Environmental Waste Solutions C/o MICROBAC Address: 158 Starlite DR. MARIETTA, OH. 45750 Contact: Stephanie MOSSBURG

Project Name: LHAAP Project Location: KARNACK, TX.

Project No.: 117591.0009A130 Project Contact: JEN HOANG Project Telephone No.: 281-531-3108

Point of Contact: Susan Giler Telephone No. 281-989-3544

Project Manager/Supervisor: PRAVEEN SRIVASTAV

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	Perchlorate method 6850	Remarks
1	475B-25D-02(4-6)	8/13/p	13:00		✓	S	SITE 47	1	✓	
2	475B-25D-01 (4-6)	8/16/10	08:00		✓	S	SITE 47	1	✓	
3	475B-25D-03 (4-6)	8/16/10	10:05		✓	S	SITE 47	1	✓	
4	475B-25D-04 (4-6)	8/16/10	12:45		✓	S	SITE 47	1	✓	
5	475B-25D-05 (4-6	8/16/10	13:10		✓	S	SITE 47	1	✓	
6										
7										
8										
9										
10										

Analysis and Method Desired (Indicate separate containers)

Transfers Relinquished By (signature)	Date/Time	Transfers Accepted By (signature)	Date/Time
Scott Beasley	8/16/10 4:30		

Special Instructions: TAT: HOLD FOR 9-11 RESULTS

FedEx Airbill No.:

Sampler's Signature: Scott Beasley

Microbac OVD
Received: 08/17/2010 09:56
By: ROBIN KLINGER
Robin L. Klinger

221000008237

TAT: ____ Standard ____ Rush Date ____

Condition ____ Y ____ N ____ Cold

Copy

Form Number: 433_2
Rev. 10-19-07

00104801

1000008237

COOLER INSPECTION

Microbac

Received: 08/17/2010 09:56
Delivery Method: UPS
Opened By: Robin Klinger
Comments:

Login(s): L10080402|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0011384	H	5.0	1Z66V7250192732629	6001	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (<6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080402
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 24-AUG-2010

Samplenum	Container ID	Products
L10080402-01	726316	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1/hold	17-AUG-2010 16:02	RLK	

Samplenum	Container ID	Products
L10080402-01	726718	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-AUG-2010 13:18	RLK	
2	ANALYZ	W1	SEM	18-AUG-2010 13:18	WTD	RLK
3	STORE	SEM	W1	18-AUG-2010 13:23	RLK	WTD
4	STORE	WET	A1	19-AUG-2010 09:13	JKT	JDH

Samplenum	Container ID	Products
L10080402-02	726317	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1/hold	17-AUG-2010 16:02	RLK	

Samplenum	Container ID	Products
L10080402-02	728502	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	23-AUG-2010 13:09	RLK	
2	ANALYZ	W1	SEM	23-AUG-2010 13:10	WTD	RLK
3	STORE	SEM	W1	23-AUG-2010 13:23	RLK	WTD
4	ANALYZ	W1	WET	23-AUG-2010 14:51	JDH	RLK
5	STORE	WET	A1	25-AUG-2010 12:15	JKT	JDH

Samplenum	Container ID	Products
L10080402-03	726318	SPECIA

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1/hold	17-AUG-2010 16:02	RLK	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080402
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 24-AUG-2010

Samplenum	Container ID	Products
L10080402-04	726319	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1/hold	17-AUG-2010 16:02	RLK	

Samplenum	Container ID	Products
L10080402-04	728503	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	23-AUG-2010 13:09	RLK	
2	ANALYZ	W1	SEM	23-AUG-2010 13:10	WTD	RLK
3	STORE	SEM	W1	23-AUG-2010 13:23	RLK	WTD

Samplenum	Container ID	Products
L10080402-05	726320	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1/hold	17-AUG-2010 16:02	RLK	

Samplenum	Container ID	Products
L10080402-05	728504	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	23-AUG-2010 13:09	RLK	
2	ANALYZ	W1	SEM	23-AUG-2010 13:10	WTD	RLK
3	STORE	SEM	W1	23-AUG-2010 13:23	RLK	WTD
4	ANALYZ	W1	WET	23-AUG-2010 14:51	JDH	RLK
5	STORE	WET	A1	25-AUG-2010 12:15	JKT	JDH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080402

08/25/10 13:27

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-25D-02(4-6)	L10080402-01	6850	1	17-AUG-10
47SB-25D-01(4-6)	L10080402-02	6850	1	17-AUG-10
47SB-25D-04(4-6)	L10080402-04	6850	1	17-AUG-10
47SB-25D-05(4-6)	L10080402-05	6850	1	17-AUG-10

Report Number: L10080402
Report Date : August 25, 2010

Sample Number: L10080402-01
Client ID: 47SB-25D-02(4-6)
Matrix: Soil
Workgroup Number: WG340152
Collect Date: 08/13/2010 13:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/18/2010 08:57
Cal Date: 08/17/2010 16:32
Run Date: 08/18/2010 18:20
File ID: 1LM.LM04690
Percent Solid: 84.4

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.33	1.17

U Not detected at or above adjusted sample detection limit

00104811

Report Number: L10080402
Report Date : August 25, 2010

Sample Number: L10080402-02
Client ID: 47SB-25D-01(4-6)
Matrix: Soil
Workgroup Number: WG340523
Collect Date: 08/16/2010 08:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/24/2010 08:38
Cal Date: 08/19/2010 22:52
Run Date: 08/24/2010 21:07
File ID: 1LM.LM04815
Percent Solid: 88.3

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	97.6		2.22	1.11

00104812

Report Number: L10080402
Report Date : August 25, 2010

Sample Number: L10080402-04
Client ID: 47SB-25D-04(4-6)
Matrix: Soil
Workgroup Number: WG340523
Collect Date: 08/16/2010 12:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/24/2010 08:38
Cal Date: 08/19/2010 22:52
Run Date: 08/24/2010 21:33
File ID: 1LM.LM04816
Percent Solid: 87.1

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	18.4		2.27	1.13

Report Number: L10080402
Report Date : August 25, 2010

Sample Number: L10080402-05
Client ID: 47SB-25D-05(4-6)
Matrix: Soil
Workgroup Number: WG340523
Collect Date: 08/16/2010 13:10
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/24/2010 08:38
Cal Date: 08/19/2010 22:52
Run Date: 08/24/2010 22:00
File ID: 1LM.LM04817
Percent Solid: 91.7

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.18	1.09

U Not detected at or above adjusted sample detection limit

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080402
Blank File ID: 1LM.LM04686
Prep Date: 08/18/10 08:57
Analyzed Date: 08/18/10 16:46
Analyst: WTD

Work Group: WG340152
Blank Sample ID: WG340152-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG340152-05	1LM.LM04683	08/18/10 15:35	01
MCT	WG340152-01	1LM.LM04685	08/18/10 16:22	01
LCS	WG340152-03	1LM.LM04687	08/18/10 17:09	01
LCS2	WG340152-04	1LM.LM04688	08/18/10 17:33	01
47SB-25D-02(4-6)	L10080402-01	1LM.LM04690	08/18/10 18:20	01
QCMRL	WG340152-06	1LM.LM04694	08/18/10 19:53	01

Report Name: BLANK_SUMMARY
PDF File ID: 1756223
Report generated 08/25/2010 13:06

Microbac®

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080402
Blank File ID: 1LM.LM04800
Prep Date: 08/24/10 08:38
Analyzed Date: 08/24/10 14:22
Analyst: WTD

Work Group: WG340523
Blank Sample ID: WG340523-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG340523-05	1LM.LM04797	08/24/10 13:03	01
MCT	WG340523-01	1LM.LM04799	08/24/10 13:56	01
LCS	WG340523-03	1LM.LM04801	08/24/10 14:49	01
LCS2	WG340523-04	1LM.LM04802	08/24/10 15:15	01
QCMRL	WG340523-06	1LM.LM04810	08/24/10 18:55	01
47SB-25D-01(4-6)	L10080402-02	1LM.LM04815	08/24/10 21:07	01
47SB-25D-04(4-6)	L10080402-04	1LM.LM04816	08/24/10 21:33	01
47SB-25D-05(4-6)	L10080402-05	1LM.LM04817	08/24/10 22:00	01
QCMRL	WG340523-07	1LM.LM04819	08/24/10 22:52	01

Report Name: BLANK_SUMMARY
PDF File ID: 1756223
Report generated 08/25/2010 13:06

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080402 Prep Date:08/18/10 08:57 Sample ID:WG340152-02
Instrument ID:LCMS1 Run Date:08/18/10 16:46 Prep Method:6850
File ID:1LM.LM04686 Analyst:WTD Method:6850
Workgroup (AAB#):WG340152 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-17-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.982	1.96	0.982	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1756224
25-AUG-2010 13:06

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080402 Prep Date:08/24/10 08:38 Sample ID:WG340523-02
Instrument ID:LCMS1 Run Date:08/24/10 14:22 Prep Method:6850
File ID:1LM.LM04800 Analyst:WTD Method:6850
Workgroup (AAB#):WG340523 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-19-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.998	2.00	0.998	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1756224
25-AUG-2010 13:06

Microbac Laboratories Inc.

LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080402 Analyst:WTD Prep Method:6850

Instrument ID:LCMS1 Matrix:Soil Method:6850

Workgroup (AAB#):WG340152 Units:ug/kg

QC Key:STD Lot #:STD40906

Sample ID:WG340152-03 LCS File ID:1LM.LM04687 Run Date:08/18/2010 17:09

Sample ID:WG340152-04 LCS2 File ID:1LM.LM04688 Run Date:08/18/2010 17:33

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	1.99	1.63	82.0	1.96	1.80	92.0	9.98	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008

PDF File ID:1756225

Report generated: 08/25/2010 13:06

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080402 Analyst:WTD Prep Method:6850
Instrument ID:LCMS1 Matrix:Soil Method:6850
Workgroup (AAB#):WG340523 Units:ug/kg
QC Key:STD Lot #:STD40906

Sample ID:WG340523-03 LCS File ID:1LM.LM04801 Run Date:08/24/2010 14:49
Sample ID:WG340523-04 LCS2 File ID:1LM.LM04802 Run Date:08/24/2010 15:15

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	1.98	1.85	93.5	1.99	2.03	102	8.93	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1756225
Report generated: 08/25/2010 13:06

Conductivity Probe Calibration Check:
1417 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level:
10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG340152-01 MCT	10,660	NA
-02 Blk	5.0	↓
-03 LCS	5.1	
-04 LCSD	5.7	
L10080390-02	3.6	
L10080402-01	19.8	

Analyst

8-18-10
WD 8-17 / 15:40
Date/Time

DCN#84086

Conductivity Probe Calibration Check: 1422 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG340523-01 MCT	10,230	NA
-02 BLK	6.8	
-03 LCS	6.2	
-04 LCSD	5.6	
L1008552-01	135	
-02	7.1	
-03	8.9	
-04	5.3	
-05	8.3	
-06	5.9	
-07	3.0	
-08	6.7	
-09	131	
L1008402-02	5.2	
-04	9.0	
-05	14.4	

Wadud T. Dolly
Analyst

8-23-10 / 14:50
Date/Time

DCN#84145

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080402

08/25/10 13:27

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-25D-02(4-6)	L10080402-01	D2216-90	1	17-AUG-10
47SB-25D-01(4-6)	L10080402-02	D2216-90	1	17-AUG-10
47SB-25D-04(4-6)	L10080402-04	D2216-90	1	17-AUG-10
47SB-25D-05(4-6)	L10080402-05	D2216-90	1	17-AUG-10

Report Number: L10080402
Report Date : August 25, 2010

Sample Number: L10080402-01
Client ID: 47SB-25D-02(4-6)
Matrix: Soil
Workgroup Number: WG340163
Collect Date: 08/13/2010 13:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/19/2010 08:31
Cal Date:
Run Date: 08/19/2010 08:31
File ID: B1.340163-0102

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	84.4		1.00	1.00

00104827

Report Number: L10080402
Report Date : August 25, 2010

Sample Number: L10080402-02
Client ID: 47SB-25D-01(4-6)
Matrix: Soil
Workgroup Number: WG340584
Collect Date: 08/16/2010 08:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/24/2010 08:34
Cal Date:
Run Date: 08/24/2010 08:34
File ID: B1.340584-0101

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	88.3		1.00	1.00

Microbac

Report Number: L10080402
Report Date : August 25, 2010

Sample Number: L10080402-04
Client ID: 47SB-25D-04(4-6)
Matrix: Soil
Workgroup Number: WG340584
Collect Date: 08/16/2010 12:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/24/2010 08:34
Cal Date:
Run Date: 08/24/2010 08:34
File ID: B1.340584-0102

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	87.1		1.00	1.00

Report Number: L10080402
Report Date : August 25, 2010

Sample Number: L10080402-05
Client ID: 47SB-25D-05(4-6)
Matrix: Soil
Workgroup Number: WG340584
Collect Date: 08/16/2010 13:10
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/24/2010 08:34
Cal Date:
Run Date: 08/24/2010 08:34
File ID: B1.340584-0103

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	91.7		1.00	1.00

00104830

Validation Qualifier Data Entry Verification

Run Date: September 20, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47SB-25D-01(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	88.7	Percent		Y	Y								L10080403-01	08:26
	SW6850	NONE	N	0	2	PERCHLORATE	127	ug/kg		Y	Y								L10080403-01	11:15
47SB-25D-02(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	88.0	Percent		Y	Y								L10080403-02	08:26
	SW6850	NONE	N	0	1	PERCHLORATE	3.99	ug/kg		Y	Y								L10080403-02	19:33
47SB-25D-04(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	87.5	Percent		Y	Y								L10080403-04	08:26
	SW6850	NONE	N	0	1	PERCHLORATE	12.1	ug/kg		Y	Y								L10080403-04	20:00
47SB-25D-05(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	88.4	Percent		Y	Y								L10080403-05	08:26
	SW6850	NONE	N	0	2	PERCHLORATE	139	ug/kg		Y	Y								L10080403-05	11:41

1100804O3 00104831

Chain of Custody

NO. 6002

(INTERVAL 0-2)

Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

Laboratory Name: Environmental Waste Solutions C/O MICROBAC Address: 158 Starlite DR. MARIETTA, OH. 45750 Contact: Stephanie MOSSBURG

Project Name LHAAP Project Location KARNACK, TX.

Project No. 117591.0009A130 Project Contact JON HOANG Project Telephone No. 281-531-3108

Point of Contact: Susan OLLER Telephone No. 281-989-3544

Project Manager/Supervisor: PRAVEEN SRIVASTAV

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	Perchlorate method 6850	Remarks
1	475B-25D-01 (0-2)	8/16/10	07:50		✓	S	SITE 47	1	✓	
2	475B-25D-02 (0-2)	8/13/10	12:55		✓	S	SITE 47	1	✓	
3	475B-25D-03 (0-2)	8/14/10	10:00		✓	S	SITE 47	1	✓	
4	475B-25D-04 (0-2)	8/16/10	12:40		✓	S	SITE 47	1	✓	
5	475B-25D-05 (0-2)	8/16/10	13:05		✓	S	SITE 47	1	✓	
6										
7										
8										
9										
10										

Analysis and Method Desired (Indicate separate containers)

Transfers Relinquished By (signature)	Date/Time	Transfers Accepted By (signature)	Date/Time
Scott Beesinger	8/16/10 4:30		

Special Instructions: TAT: HOLD FOR 4-6 RESULTS

Microbac OVD
Received: 08/17/2010 09:56
By: ROBIN KLINGER
Robin L. Klinger

221000008238

TAT: ____ Standard ____ Rush Date ____ Se

:x Airbill No.:

pler's Signature Scott Beesinger

___Y ___N ___Cold

Form Number: 433_2
Rev. 10-19-07

Page 59

COOLER INSPECTION

Microbac®

Received: 08/17/2010 09:56
Delivery Method: UPS
Opened By: Robin Klinger
Comments:

Login(s): L10080403|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0011384	H	5.0	1Z66V7250192732629	6002	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (<6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080403
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 26-AUG-2010

Samplenum	Container ID	Products
L10080403-01	726321	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1/hold	17-AUG-2010 16:06	RLK	

Samplenum	Container ID	Products
L10080403-01	730228	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 11:42	RLK	
2	ANALYZ	W1	SEM	25-AUG-2010 11:45	WTD	RLK
3	STORE	SEM	W1	25-AUG-2010 12:45	RLK	WTD
4	ANALYZ	W1	WET	25-AUG-2010 12:46	JDH	RLK
5	STORE	WET	A1	26-AUG-2010 09:28	RLK	JDH

Samplenum	Container ID	Products
L10080403-02	726322	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1/hold	17-AUG-2010 16:06	RLK	

Samplenum	Container ID	Products
L10080403-02	730229	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 11:42	RLK	
2	ANALYZ	W1	SEM	25-AUG-2010 11:45	WTD	RLK
3	STORE	SEM	W1	25-AUG-2010 12:45	RLK	WTD
4	ANALYZ	W1	WET	25-AUG-2010 12:46	JDH	RLK
5	STORE	WET	A1	26-AUG-2010 09:28	RLK	JDH

Samplenum	Container ID	Products
L10080403-03	726323	SPECIA

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1/hold	17-AUG-2010 16:06	RLK	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080403
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 26-AUG-2010

Samplenum	Container ID	Products
L10080403-04	726324	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLERw1/hold		17-AUG-2010 16:06	RLK	

Samplenum	Container ID	Products
L10080403-04	730230	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 11:42	RLK	
2	ANALYZ	W1	SEM	25-AUG-2010 11:45	WTD	RLK
3	STORE	SEM	W1	25-AUG-2010 12:45	RLK	WTD
4	ANALYZ	W1	WET	25-AUG-2010 12:46	JDH	RLK
5	STORE	WET	A1	26-AUG-2010 09:28	RLK	JDH

Samplenum	Container ID	Products
L10080403-05	726325	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLERw1/hold		17-AUG-2010 16:06	RLK	

Samplenum	Container ID	Products
L10080403-05	730231	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 11:42	RLK	
2	ANALYZ	W1	SEM	25-AUG-2010 11:45	WTD	RLK
3	STORE	SEM	W1	25-AUG-2010 12:45	RLK	WTD
4	ANALYZ	W1	WET	25-AUG-2010 12:46	JDH	RLK
5	STORE	WET	A1	26-AUG-2010 09:28	RLK	JDH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080403

08/30/10 15:51

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-25D-01(0-2)	L10080403-01	6850	2	17-AUG-10
47SB-25D-02(0-2)	L10080403-02	6850	1	17-AUG-10
47SB-25D-04(0-2)	L10080403-04	6850	1	17-AUG-10
47SB-25D-05(0-2)	L10080403-05	6850	2	17-AUG-10

Report Number: L10080403
Report Date : August 30, 2010

Sample Number: L10080403-01
Client ID: 47SB-25D-01(0-2)
Matrix: Soil
Workgroup Number: WG340825
Collect Date: 08/16/2010 07:50
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 2
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/25/2010 11:36
Cal Date: 08/19/2010 22:52
Run Date: 08/26/2010 11:15
File ID: 1LM.LM04877
Percent Solid: 88.7

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	127		4.65	2.32

L0080403

00104842

Report Number: L10080403
Report Date : August 30, 2010

Sample Number: L10080403-02
Client ID: 47SB-25D-02(0-2)
Matrix: Soil
Workgroup Number: WG340825
Collect Date: 08/13/2010 12:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/25/2010 11:36
Cal Date: 08/19/2010 22:52
Run Date: 08/25/2010 19:33
File ID: 1LM.LM04856
Percent Solid: 88.0

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	3.99		2.28	1.14

0904/10

Microbac

Report Number: L10080403
Report Date : August 30, 2010

Sample Number: L10080403-04
Client ID: 47SB-25D-04(0-2)
Matrix: Soil
Workgroup Number: WG340825
Collect Date: 08/16/2010 12:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/25/2010 11:36
Cal Date: 08/19/2010 22:52
Run Date: 08/25/2010 20:00
File ID: 1LM.LM04857
Percent Solid: 87.5

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	12.1		2.14	1.07

00104844

Report Number: L10080403
Report Date : August 30, 2010

Sample Number: L10080403-05
Client ID: 47SB-25D-05(0-2)
Matrix: Soil
Workgroup Number: WG340825
Collect Date: 08/16/2010 13:05
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 2
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/25/2010 11:36
Cal Date: 08/19/2010 22:52
Run Date: 08/26/2010 11:41
File ID: 1LM.LM04878
Percent Solid: 88.4

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	139		4.93	2.47

Microbac

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080403
Blank File ID: 1LM.LM04852
Prep Date: 08/25/10 11:36
Analyzed Date: 08/25/10 17:48
Analyst: WTD

Work Group: WG340825
Blank Sample ID: WG340825-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG340825-05	1LM.LM04849	08/25/10 16:28	01
MCT	WG340825-01	1LM.LM04851	08/25/10 17:21	01
LCS	WG340825-03	1LM.LM04853	08/25/10 18:14	01
LCS2	WG340825-04	1LM.LM04854	08/25/10 18:40	01
47SB-25D-02(0-2)	L10080403-02	1LM.LM04856	08/25/10 19:33	01
47SB-25D-04(0-2)	L10080403-04	1LM.LM04857	08/25/10 20:00	01
QCMRL	WG340825-06	1LM.LM04862	08/25/10 22:12	01
QCMRL	WG340825-07	1LM.LM04869	08/26/10 01:18	01
QCMRL	WG340825-08	1LM.LM04873	08/26/10 09:29	01
47SB-25D-01(0-2)	L10080403-01	1LM.LM04877	08/26/10 11:15	DL01
47SB-25D-05(0-2)	L10080403-05	1LM.LM04878	08/26/10 11:41	DL01
QCMRL	WG340825-09	1LM.LM04880	08/26/10 12:34	01

Report Name: BLANK_SUMMARY
PDF File ID: 1761920
Report generated 08/27/2010 08:14

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080403 Prep Date:08/25/10 11:36 Sample ID:WG340825-02
Instrument ID:LCMS1 Run Date:08/25/10 17:48 Prep Method:6850
File ID:1LM.LM04852 Analyst:WTD Method:6850
Workgroup (AAB#):WG340825 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID:LCMS1-19-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.985	1.97	0.985	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1761921
27-AUG-2010 08:14

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080403 Analyst:WTD Prep Method:6850
Instrument ID:LCMS1 Matrix:Soil Method:6850
Workgroup (AAB#):WG340825 Units:ug/kg
QC Key:STD Lot #:STD40906

Sample ID:WG340825-03 LCS File ID:1LM.LM04853 Run Date:08/25/2010 18:14
Sample ID:WG340825-04 LCS2 File ID:1LM.LM04854 Run Date:08/25/2010 18:40

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	2.01	1.89	94.0	2.01	1.85	92.0	2.43	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID:1761922
Report generated: 08/27/2010 08:14

Conductivity Probe Calibration Check: 1405 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG340825-01 MCT	10,570	NA
-02 BLK	8.4	
-03 LCS	8.9	
-04 LCS2	8.9	
L10080403-01	16.9	
-02	24.4	
-04	20.3	
-05	4.3	
L10080654-01	5.6	
-02	92.3	
-03	26.5	
-04	6.8	
-05	3.3	
-06	12.6	

Analyst

8-25-10 / 16:05
Date/Time

DCN#84175

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080403

08/30/10 15:51

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-25D-01(0-2)	L10080403-01	D2216-90	1	17-AUG-10
47SB-25D-02(0-2)	L10080403-02	D2216-90	1	17-AUG-10
47SB-25D-04(0-2)	L10080403-04	D2216-90	1	17-AUG-10
47SB-25D-05(0-2)	L10080403-05	D2216-90	1	17-AUG-10

Report Number: L10080403
Report Date : August 30, 2010

Sample Number: L10080403-01
Client ID: 47SB-25D-01(0-2)
Matrix: Soil
Workgroup Number: WG340836
Collect Date: 08/16/2010 07:50
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/26/2010 08:26
Cal Date:
Run Date: 08/26/2010 08:26
File ID: B1.340836-0101

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	88.7		1.00	1.00

Report Number: L10080403
Report Date : August 30, 2010

Sample Number:	L10080403-02	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	47SB-25D-02(0-2)	Prep Method:	D2216-90	Prep Date:	08/26/2010 08:26
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG340836	Analyst:	JDH	Run Date:	08/26/2010 08:26
Collect Date:	08/13/2010 12:55	Dilution:	1	File ID:	B1.340836-0102
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	88.0		1.00	1.00

Report Number: L10080403
Report Date : August 30, 2010

Sample Number:	L10080403-04	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	47SB-25D-04(0-2)	Prep Method:	D2216-90	Prep Date:	08/26/2010 08:26
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG340836	Analyst:	JDH	Run Date:	08/26/2010 08:26
Collect Date:	08/16/2010 12:40	Dilution:	1	File ID:	B1.340836-0103
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	87.5		1.00	1.00

Report Number: L10080403
Report Date : August 30, 2010

Sample Number: L10080403-05
Client ID: 47SB-25D-05(0-2)
Matrix: Soil
Workgroup Number: WG340836
Collect Date: 08/16/2010 13:05
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/26/2010 08:26
Cal Date:
Run Date: 08/26/2010 08:26
File ID: B1.340836-0104

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	88.4		1.00	1.00

00104857

Validation Qualifier Data Entry Verification

Run Date: September 14, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47SB-25D-03(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	84.2	Percent		Y	Y								L10080446-01	08:25
	SW6850	NONE	N	0	1	PERCHLORATE	1.18	ug/kg	U	N	Y		U						L10080446-01	02:49

LHAA-47

dr

dlc

09/14/10

Chain of Custody

NO. 6001

Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

(INTERVAL 4-6)

Laboratory Name: Environmental Waste Solutions C/O MICROBAC Address: 158 Starlite DR. MARIETTA, OH. 45750 Contact: Stephanie MOSSBURG

Project Name: LHAAP Project Location: KARNACK, TX.

Project No.: 117591.0009A130 Project Contact: JEN HOANG Project Telephone No.: 281-531-3108

Point of Contact: Susan Giler Telephone No.: 281-989-3544

Project Manager/Supervisor: PRAVEEN SRIVASTAV

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	Analysis and Method Desired (Indicate separate containers): Perchlorate method 6850	Remarks
1	475B-25D-02(4-6)	8/13/10	13:00		✓	S	SITE 47	1	✓	
2	475B-25D-01 (4-6)	8/16/10	08:00		✓	S	SITE 47	1	✓	
3	475B-25D-03 (4-6)	8/16/10	10:05		✓	S	SITE 47	1	✓	
4	475B-25D-04 (4-6)	8/16/10	12:45		✓	S	SITE 47	1	✓	
5	475B-25D-05 (4-6	8/16/10	13:10		✓	S	SITE 47	1	✓	
6										
7										
8										
9										
10										

Transfers Relinquished By (signature)	Date/Time	Transfers Accepted By (signature)	Date/Time
Scott Beesley	8/16/10 4:30		

Special Instructions: TAT: HOLD FOR 9-11 RESULTS

FedEx Airbill No.:

Sampler's Signature: Scott Beesley

TAT: ____ Standard ____ Rush Date ____

ion ____ Y ____ N ____ Cold

Microbac OVD
Received: 08/17/2010 09:56
By: ROBIN KLINGER
Robin L. Klinger

221000008301

Form Number: 433_2
Rev. 10-19-07



COOLER INSPECTION

Microbac®

Received: 08/17/2010 09:56
Delivery Method: UPS
Opened By: Robin Klinger
Comments:

Login(s): L10080446|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0011384	H	5.0	1Z66V7250192732629	6001	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (<6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080446
Account: 2773
Project: 2773.025
Samples: 1
Due Date: 20-AUG-2010

Samplenum	Container ID	Products
L10080446-01	726910	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	19-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	19-AUG-2010 11:57	WTD	JKT
3	STORE	SEM	W1	19-AUG-2010 12:12	JKT	WTD
4	ANALYZ	W1	WET	19-AUG-2010 13:11	JDH	JKT
5	STORE	WET	A1	20-AUG-2010 08:18	RLK	JDH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0l/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080446

08/27/10 10:04

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-25D-03(4-6)	L10080446-01	6850	1	17-AUG-10

Microbac Laboratories Inc.

Report Number: L10080446
Report Date : August 27, 2010

Sample Number: L10080446-01
Client ID: 47SB-25D-03(4-6)
Matrix: Soil
Workgroup Number: WG340283
Collect Date: 08/16/2010 10:05
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/19/2010 19:47
Cal Date: 08/19/2010 21:06
Run Date: 08/20/2010 02:49
File ID: 1LM.LM04742
Percent Solid: 84.2

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.36	1.18

U Not detected at or above adjusted sample detection limit

1 of 1

Microbac

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080446
Work Group: WG340283
Blank File ID: 1LM.LM04739
Blank Sample ID: WG340283-02
Prep Date: 08/19/10 19:47
Instrument ID: LCMS1
Analyzed Date: 08/20/10 01:30
Method: 6850
Analyst: WTD

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG340283-05	1LM.LM04737	08/20/10 00:37	01
MCT	WG340283-01	1LM.LM04738	08/20/10 01:03	01
LCS	WG340283-03	1LM.LM04740	08/20/10 01:56	01
LCS2	WG340283-04	1LM.LM04741	08/20/10 02:22	01
47SB-25D-03(4-6)	L10080446-01	1LM.LM04742	08/20/10 02:49	01
QCMRL	WG340283-06	1LM.LM04745	08/20/10 04:08	01

Report Name: BLANK_SUMMARY
PDF File ID: 1757535
Report generated 08/23/2010 10:36

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080446 Prep Date:08/19/10 19:47 Sample ID:WG340283-02
Instrument ID:LCMS1 Run Date:08/20/10 01:30 Prep Method:6850
File ID:1LM.LM04739 Analyst:WTD Method:6850
Workgroup (AAB#):WG340283 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-19-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.998	2.00	0.998	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1757536
23-AUG-2010 10:36

Microbac Laboratories Inc.

LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080446 Analyst:WTD Prep Method:6850

Instrument ID:LCMS1 Matrix:Soil Method:6850

Workgroup (AAB#):WG340283 Units:ug/kg

QC Key:STD Lot #:STD40906

Sample ID:WG340283-03 LCS File ID:1LM.LM04740 Run Date:08/20/2010 01:56

Sample ID:WG340283-04 LCS2 File ID:1LM.LM04741 Run Date:08/20/2010 02:22

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	1.99	2.09	105	1.98	1.96	99.0	6.62	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008

PDF File ID:1757537

Report generated: 08/23/2010 10:36

Conductivity Probe Calibration Check: 1419 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
W6340283-01 MCT	10,380	NA
-02 BLK	12.3	↓
-03 LCS	10.0	
-04 LCSD	7.3	
L10080446-01	6.7	

Wade T. Doty
Analyst

8-20-10 / 0945
Date/Time

DCN#84116

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080446

08/27/10 10:04

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-25D-03(4-6)	L10080446-01	D2216-90	1	17-AUG-10

Report Number: L10080446
Report Date : August 27, 2010

Sample Number: L10080446-01
Client ID: 47SB-25D-03(4-6)
Matrix: Soil
Workgroup Number: WG340330
Collect Date: 08/16/2010 10:05
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/20/2010 08:25
Cal Date:
Run Date: 08/20/2010 08:25
File ID: B1.340330-0101

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	84.2		1.00	1.00

00104877

Validation Qualifier Data Entry Verification

Run Date: September 14, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47SB-25D-01(9-11)	D2216	NONE	N	0	1	PERCENT SOLIDS	84.0	Percent		Y	Y					L10080489-01	08:17
	SW6850	NONE	N	0	1	PERCHLORATE	13.5	ug/kg		Y	Y					L10080489-01	18:23
47SB-25D-03(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	85.1	Percent		Y	Y					L10080489-04	08:17
	SW6850	NONE	N	0	1	PERCHLORATE	1.15	ug/kg	U	N	Y		U			L10080489-04	19:42
47SB-25D-04(9-11)	D2216	NONE	N	0	1	PERCENT SOLIDS	84.8	Percent		Y	Y					L10080489-02	08:17
	SW6850	NONE	N	0	1	PERCHLORATE	28.9	ug/kg		Y	Y					L10080489-02	18:49
47SB-25D-05(9-11)	D2216	NONE	N	0	1	PERCENT SOLIDS	86.8	Percent		Y	Y					L10080489-03	08:17
	SW6850	NONE	N	0	1	PERCHLORATE	1.75	ug/kg	J	Y	Y		J			L10080489-03	19:16

09/04/10

LAA-47

OK

L1008048 00104878

Relog From L1008 0390 -01
03
04

Chain of Custody

NO. 5900

(INTERVAL 9-11)

Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

Laboratory Name: Environmental Waste Solutions C/O MICROBAC Address: 158 STARLITE DR. MARIETTA, OH. 45750 Contact: Stephanie MOSSBORG

Project Name: LHAAP Project Location: KARNACK, TX.

Project No.: 117591.0009A130 Project Contact: JEN HOANG Project Telephone No.: 281-531-3108

Point of Contact: SUSAN OLLER Telephone No.: 281-989-3544

Project Manager/Supervisor: PRAVEEN SRIVASTAV

Analysis and Method Desired (Indicate separate containers)

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	Method 6850 Perchlorate	Remarks
1	475B-25D-02(9-11)	8/13/10	13:05		✓	S	SITE 47	1	✓	
2	475B-25D-01 (9-11)	8/14/10	08:05		✓	S	SITE 47	1	✓	
3	475B-25D-03 (9-11)	8/16/10	10:15		✓	S	SITE 47	1	✓	
4	475B-25D-04 (9-11)	8/16/10	12:55		✓	S	SITE 47	1	✓	
5	475B-25D-05 (9-11)	8/16/10	13:15		✓	S	SITE 47	1	✓	
6										
7										
8										
9										
10										

Transfers Relinquished By (signature)	Date/Time	Transfers Accepted By (signature)	Date/Time
Scott Beesinger	8/16/10 4:30		

Special Instructions: TAT: HOLD FOR GW/VZ RESULTS

FedEx Airbill No.:

Sampler's Signature: Scott Beesinger

TAT: ____ Standard ____ Rush Date ____

Microbac OVD
Received: 08/17/2010 09:56
By: ROBIN KLINGER
221000008340

Relog 8/20/10
Robin L. Klinger RLK

tion ____ Y ____ N ____ Cold

Form Number: 433_2
Rev. 10-16-07

Page 55

L100804&9 00104879

Relog from L100804&3-03

Chain of Custody

NO. 6002

(INTERVAL 0-2)

Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

Laboratory Name: Environmental Waste Solutions C/O MICROBAC Address: 158 STARLITE DR. MARIETTA, OH. 45750 Contact: Stephanie MOSSBURG

Project Name: LHAAP Project Location: KARNACK, TX.

Project No.: 117591.0009A130 Project Contact: JEN HOANG Project Telephone No.: 281-531-3108

Point of Contact: Susan OLLER Telephone No.: 281-989-3544

Project Manager/Supervisor: PRAVEEN SRIVASTAV

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	Perchlorate method 6850	Remarks
1	475B-25D-01 (0-2)	8/16/10	07:50		✓	S	SITE 47	1	✓	
2	475B-25D-02 (0-2)	8/13/10	12:55		✓	S	SITE 47	1	✓	
3	475B-25D-03 (0-2)	8/14/10	10:00		✓	S	SITE 47	1	✓	
4	475B-25D-04 (0-2)	8/16/10	12:40		✓	S	SITE 47	1	✓	
5	475B-25D-05 (0-2)	8/16/10	13:05		✓	S	SITE 47	1	✓	
6										
7										
8										
9										
10										

Transfers Relinquished By (signature)	Date/Time	Transfers Accepted By (signature)	Date/Time
Scott Beesinger	8/16/10 4:30		

Special Instructions: TAT: HOLD FOR 4-6 RESULTS

TAT: ____ Standard ____ Rush Date ____

Microbac OVD
Received: 08/17/2010 09:56
By: ROBIN KLINGER
221000008340

Robin L. Klinger Relog 8/20/10 RLK

x Airbill No.:

ier's Signature Scott Beesinger

Y ____ N ____ Cold

Form Number: 433_2
Rev. 10-19-07

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COOLER INSPECTION

Microbac®

Received: 08/17/2010 09:56
Delivery Method: UPS
Opened By: Robin Klinger
Comments:

Login(s): L10080489|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0011384	H	5.0	1Z66V7250192732629	5900 6002	
0011384	H	5.0	1Z66V7250192732629	5900 6002	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (<6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080489
Account: 2773
Project: 2773.025
Samples: 4
Due Date: 23-AUG-2010

Samplenum	Container ID	Products
L10080489-01	727230	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	20-AUG-2010 11:45	JKT	
2	ANALYZ	W1	WET	20-AUG-2010 11:52	JDH	RLK
3	STORE	WET	W1	20-AUG-2010 12:24	JKT	JDH
4	ANALYZ	W1	SEM	20-AUG-2010 12:30	WTD	RLK
5	STORE	SEM	A1	23-AUG-2010 09:35	RLK	WTD

Samplenum	Container ID	Products
L10080489-02	727231	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	20-AUG-2010 11:45	JKT	
2	ANALYZ	W1	WET	20-AUG-2010 11:52	JDH	RLK
3	STORE	WET	W1	20-AUG-2010 12:24	JKT	JDH
4	ANALYZ	W1	SEM	20-AUG-2010 12:30	WTD	RLK
5	STORE	SEM	A1	23-AUG-2010 09:34	RLK	WTD

Samplenum	Container ID	Products
L10080489-03	727232	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	20-AUG-2010 11:45	JKT	
2	ANALYZ	W1	WET	20-AUG-2010 11:52	JDH	RLK
3	STORE	WET	W1	20-AUG-2010 12:24	JKT	JDH
4	ANALYZ	W1	SEM	20-AUG-2010 12:30	WTD	RLK
5	STORE	SEM	A1	23-AUG-2010 09:34	RLK	WTD

Samplenum	Container ID	Products
L10080489-04	727233	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	20-AUG-2010 11:45	JKT	
2	ANALYZ	W1	WET	20-AUG-2010 11:52	JDH	RLK
3	STORE	WET	W1	20-AUG-2010 12:24	JKT	JDH
4	ANALYZ	W1	SEM	20-AUG-2010 12:30	WTD	RLK
5	STORE	SEM	A1	23-AUG-2010 09:34	RLK	WTD

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080489

08/27/10 10:03

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-25D-01(9-11)	L10080489-01	6850	1	17-AUG-10
47SB-25D-04(9-11)	L10080489-02	6850	1	17-AUG-10
47SB-25D-05(9-11)	L10080489-03	6850	1	17-AUG-10
47SB-25D-03(0-2)	L10080489-04	6850	1	17-AUG-10

Report Number: L10080489
Report Date : August 27, 2010

Sample Number:	L10080489-01	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47SB-25D-01(9-11)	Prep Method:	6850	Prep Date:	08/20/2010 15:18
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/19/2010 22:52
Workgroup Number:	WG340424	Analyst:	WTD	Run Date:	08/20/2010 18:23
Collect Date:	08/13/2010 08:05	Dilution:	1	File ID:	1LM.LM04762
Sample Tag:	01	Units:	ug/kg	Percent Solid:	84.0

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	13.5		2.35	1.17

dl 090710

Microbac

Microbac Laboratories Inc.

Report Number: L10080489
Report Date : August 27, 2010

Sample Number: L10080489-02
Client ID: 47SB-25D-04(9-11)
Matrix: Soil
Workgroup Number: WG340424
Collect Date: 08/13/2010 12:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/20/2010 15:18
Cal Date: 08/19/2010 22:52
Run Date: 08/20/2010 18:49
File ID: 1LM.LM04763
Percent Solid: 84.8

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	28.9		2.33	1.17

09010

Microbac

Microbac Laboratories Inc.

Report Number: L10080489
Report Date : August 27, 2010

Sample Number: L10080489-03
Client ID: 47SB-25D-05(9-11)
Matrix: Soil
Workgroup Number: WG340424
Collect Date: 08/13/2010 13:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/20/2010 15:18
Cal Date: 08/19/2010 22:52
Run Date: 08/20/2010 19:16
File ID: 1LM.LM04764
Percent Solid: 86.8

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	1.75	J	2.27	1.13

J

J The analyte was positively identified, but the quantitation was below the RL

W 090710

Microbac

Microbac Laboratories Inc.

Report Number: L10080489
Report Date : August 27, 2010

Sample Number:	L10080489-04	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47SB-25D-03(0-2)	Prep Method:	6850	Prep Date:	08/20/2010 15:18
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/19/2010 22:52
Workgroup Number:	WG340424	Analyst:	WTD	Run Date:	08/20/2010 19:42
Collect Date:	08/16/2010 10:00	Dilution:	1	File ID:	1LM.LM04765
Sample Tag:	01	Units:	ug/kg	Percent Solid:	85.1

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.31	1.15

U Not detected at or above adjusted sample detection limit

090710

Microbac

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080489
Work Group: WG340424
Blank File ID: 1LM.LM04759
Blank Sample ID: WG340424-02
Prep Date: 08/20/10 15:18
Instrument ID: LCMS1
Analyzed Date: 08/20/10 17:04
Method: 6850
Analyst: WTD

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG340424-05	1LM.LM04757	08/20/10 16:11	01
MCT	WG340424-01	1LM.LM04758	08/20/10 16:37	01
LCS	WG340424-03	1LM.LM04760	08/20/10 17:30	01
LCS2	WG340424-04	1LM.LM04761	08/20/10 17:57	01
47SB-25D-01(9-11)	L10080489-01	1LM.LM04762	08/20/10 18:23	01
47SB-25D-04(9-11)	L10080489-02	1LM.LM04763	08/20/10 18:49	01
47SB-25D-05(9-11)	L10080489-03	1LM.LM04764	08/20/10 19:16	01
47SB-25D-03(0-2)	L10080489-04	1LM.LM04765	08/20/10 19:42	01
QCMRL	WG340424-06	1LM.LM04767	08/20/10 20:35	01
QCMRL	WG340424-07	1LM.LM04774	08/20/10 23:40	01

Report Name: BLANK_SUMMARY
PDF File ID: 1758462
Report generated 08/23/2010 09:55

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080489 Prep Date:08/20/10 15:18 Sample ID:WG340424-02
Instrument ID:LCMS1 Run Date:08/20/10 17:04 Prep Method:6850
File ID:1LM.LM04759 Analyst:WTD Method:6850
Workgroup (AAB#):WG340424 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-19-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.999	2.00	0.999	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1758463
23-AUG-2010 09:55

Microbac Laboratories Inc.

LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080489 Analyst: WTD Prep Method: 6850

Instrument ID: LCMS1 Matrix: Soil Method: 6850

Workgroup (AAB#): WG340424 Units: ug/kg

QC Key: STD Lot #: STD40906

Sample ID: WG340424-03 LCS File ID: 1LM.LM04760 Run Date: 08/20/2010 17:30

Sample ID: WG340424-04 LCS2 File ID: 1LM.LM04761 Run Date: 08/20/2010 17:57

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	1.99	1.78	89.5	1.99	1.82	91.5	1.83	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008

PDF File ID: 1758464

Report generated: 08/23/2010 09:55

Conductivity Probe
Calibration Check:
1423/1410 µs/cm

Perchlorate
Conductivity Check

Working MCT Level:
10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG340424-01 MET	10,360	NA
-02 BH	6.2	↓
-03 LCS	6.8	
-04 LCSD	6.8	
L1008048 9-01	3.7	
-02	5.8	
-03	10.1	
-04	8.6	↓

Analyst

8-20-10 / 15:35
Date/Time

DCN#84131

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080489

08/27/10 10:03

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-25D-01(9-11)	L10080489-01	D2216-90	1	17-AUG-10
47SB-25D-04(9-11)	L10080489-02	D2216-90	1	17-AUG-10
47SB-25D-05(9-11)	L10080489-03	D2216-90	1	17-AUG-10
47SB-25D-03(0-2)	L10080489-04	D2216-90	1	17-AUG-10

Report Number: L10080489
Report Date : August 27, 2010

Sample Number: L10080489-01
Client ID: 47SB-25D-01(9-11)
Matrix: Soil
Workgroup Number: WG340422
Collect Date: 08/13/2010 08:05
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/23/2010 08:17
Cal Date:
Run Date: 08/23/2010 08:17
File ID: B1.340422-0101

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	84.0		1.00	1.00

Report Number: L10080489
Report Date : August 27, 2010

Sample Number: L10080489-02
Client ID: 47SB-25D-04(9-11)
Matrix: Soil
Workgroup Number: WG340422
Collect Date: 08/13/2010 12:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/23/2010 08:17
Cal Date:
Run Date: 08/23/2010 08:17
File ID: B1.340422-0102

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	84.8		1.00	1.00

Report Number: L10080489
Report Date : August 27, 2010

Sample Number: L10080489-03
Client ID: 47SB-25D-05(9-11)
Matrix: Soil
Workgroup Number: WG340422
Collect Date: 08/13/2010 13:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/23/2010 08:17
Cal Date:
Run Date: 08/23/2010 08:17
File ID: B1.340422-0103

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	86.8		1.00	1.00

Report Number: L10080489
Report Date : August 27, 2010

Sample Number: L10080489-04
Client ID: 47SB-25D-03(0-2)
Matrix: Soil
Workgroup Number: WG340422
Collect Date: 08/16/2010 10:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/23/2010 08:17
Cal Date:
Run Date: 08/23/2010 08:17
File ID: B1.340422-0104

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	85.1		1.00	1.00

Microbac

Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47DPT07-100820	SW8260B	SW5030	N 0 1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N Y	U			L10080553-06	19:58
				1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				1,1-DICHLOROETHANE	0.125	ug/L	U	N Y	U			L10080553-06	19:58
				1,1-DICHLOROETHENE	0.500	ug/L	U	N Y	U			L10080553-06	19:58
				1,1-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N Y	U			L10080553-06	19:58
				1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N Y	U			L10080553-06	19:58
				1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N Y	U			L10080553-06	19:58
				1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N Y	U			L10080553-06	19:58
				1,2-DIBROMOETHANE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				1,2-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080553-06	19:58
				1,2-DICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				1,2-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080553-06	19:58
				1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				1,3-DICHLOROBENZENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				1,3-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080553-06	19:58
				1,4-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080553-06	19:58
				2,2-DICHLOROPROPANE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				2-BUTANONE	2.50	ug/L	U	N Y	U			L10080553-06	19:58
				2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N Y	U			L10080553-06	19:58
				2-CHLOROTOLUENE	0.125	ug/L	U	N Y	U			L10080553-06	19:58
				2-HEXANONE	2.50	ug/L	U	N Y	U			L10080553-06	19:58
				4-CHLOROTOLUENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				4-METHYL-2-PENTANONE	2.50	ug/L	U	N Y	U			L10080553-06	19:58
				ACETONE	8.75	ug/L	J	Y Y	J			L10080553-06	19:58
				BENZENE	0.125	ug/L	U	N Y	U			L10080553-06	19:58
				BROMOBENZENE	0.125	ug/L	U	N Y	U			L10080553-06	19:58
				BROMOCHLOROMETHANE	0.200	ug/L	U	N Y	U			L10080553-06	19:58
				BROMODICHLOROMETHANE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				BROMOFORM	0.500	ug/L	U	N Y	U			L10080553-06	19:58
				BROMOMETHANE	0.500	ug/L	U	N Y	U			L10080553-06	19:58
				CARBON DISULFIDE	0.500	ug/L	U	N Y	U			L10080553-06	19:58
				CARBON TETRACHLORIDE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				CHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080553-06	19:58
				CHLORODIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				CHLOROETHANE	0.500	ug/L	U	N Y	U			L10080553-06	19:58
				CHLOROFORM	0.125	ug/L	U	N Y	U			L10080553-06	19:58
				CHLOROMETHANE	0.538	ug/L	J	Y Y	J			L10080553-06	19:58
				CIS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				DIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080553-06	19:58

OK
10/7/10

Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47DPT07-100820	SW8260B	SW5030	N 0 1	DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				ETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				HEXACHLOROBUTADIENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				ISOPROPYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				M-,P-XYLENE	0.500	ug/L	U	N Y	U			L10080553-06	19:58
				METHYLENE CHLORIDE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				N-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				N-PROPYLBENZENE	0.125	ug/L	U	N Y	U			L10080553-06	19:58
				NAPHTHALENE	0.200	ug/L	U	N Y	U			L10080553-06	19:58
				O-XYLENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				P-ISOPROPYLTOLUENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				SEC-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				STYRENE	0.125	ug/L	U	N Y	U			L10080553-06	19:58
				TERT-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				TETRACHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				TOLUENE	0.263	ug/L	J	Y Y	J			L10080553-06	19:58
				TRANS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N Y	U			L10080553-06	19:58
				TRICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
				VINYL ACETATE	2.50	ug/L	U	N Y	U			L10080553-06	19:58
				VINYL CHLORIDE	0.250	ug/L	U	N Y	U			L10080553-06	19:58
47DPT08-100820	SW8260B	SW5030	N 0 1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N Y	U			L10080553-01	14:35
				1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				1,1-DICHLOROETHANE	0.125	ug/L	U	N Y	U			L10080553-01	14:35
				1,1-DICHLOROETHENE	0.500	ug/L	U	N Y	U			L10080553-01	14:35
				1,1-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N Y	U			L10080553-01	14:35
				1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N Y	U			L10080553-01	14:35
				1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N Y	U			L10080553-01	14:35
				1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N Y	U			L10080553-01	14:35
				1,2-DIBROMOETHANE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				1,2-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080553-01	14:35
				1,2-DICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				1,2-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080553-01	14:35
				1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				1,3-DICHLOROBENZENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				1,3-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080553-01	14:35
				1,4-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080553-01	14:35
				2,2-DICHLOROPROPANE	0.250	ug/L	U	N Y	U			L10080553-01	14:35

Validation Qualifier Data Entry Verification

Longhorn Army Ammunition Pl

Run Date: October 7, 2010

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47DPT08-100820	SW8260B	SW5030	N 0 1	2-BUTANONE	2.50	ug/L	U	N Y	U			L10080553-01	14:35
				2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N Y	U			L10080553-01	14:35
				2-CHLOROTOLUENE	0.125	ug/L	U	N Y	U			L10080553-01	14:35
				2-HEXANONE	2.50	ug/L	U	N Y	U			L10080553-01	14:35
				4-CHLOROTOLUENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				4-METHYL-2-PENTANONE	2.50	ug/L	U	N Y	U			L10080553-01	14:35
				ACETONE	2.50	ug/L	U	N Y	U			L10080553-01	14:35
				BENZENE	0.125	ug/L	U	N Y	U			L10080553-01	14:35
				BROMOBENZENE	0.125	ug/L	U	N Y	U			L10080553-01	14:35
				BROMOCHLOROMETHANE	0.200	ug/L	U	N Y	U			L10080553-01	14:35
				BROMODICHLOROMETHANE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				BROMOFORM	0.500	ug/L	U	N Y	U			L10080553-01	14:35
				BROMOMETHANE	0.500	ug/L	U	N Y	U			L10080553-01	14:35
				CARBON DISULFIDE	0.500	ug/L	U	N Y	U			L10080553-01	14:35
				CARBON TETRACHLORIDE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				CHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080553-01	14:35
				CHLORODIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				CHLOROETHANE	0.500	ug/L	U	N Y	U			L10080553-01	14:35
				CHLOROFORM	0.125	ug/L	U	N Y	U			L10080553-01	14:35
				CHLOROMETHANE	0.500	ug/L	U	N Y	U			L10080553-01	14:35
				CIS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				DIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				ETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				HEXACHLOROBUTADIENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				ISOPROPYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				M-,P-XYLENE	0.500	ug/L	U	N Y	U			L10080553-01	14:35
				METHYLENE CHLORIDE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				N-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				N-PROPYLBENZENE	0.125	ug/L	U	N Y	U			L10080553-01	14:35
				NAPHTHALENE	0.200	ug/L	U	N Y	U			L10080553-01	14:35
				O-XYLENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				P-ISOPROPYLTOLUENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				SEC-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				STYRENE	0.125	ug/L	U	N Y	U			L10080553-01	14:35
				TERT-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				TETRACHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				TOLUENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				TRANS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N Y	U			L10080553-01	14:35
				TRICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080553-01	14:35
				VINYL ACETATE	2.50	ug/L	U	N Y	U			L10080553-01	14:35

Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

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Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47DPT08-100820	SW8260B	SW5030	N	0	1	VINYL CHLORIDE	0.250	ug/L	U	N	Y		U						L10080553-01	14:35
47DPT09-100820	SW8260B	SW5030	N	0	1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080553-07	20:30
						1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080553-07	20:30
						1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N	Y		U						L10080553-07	20:30
						1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080553-07	20:30
						1,1-DICHLOROETHANE	0.125	ug/L	U	N	Y		U						L10080553-07	20:30
						1,1-DICHLOROETHENE	0.500	ug/L	U	N	Y		U						L10080553-07	20:30
						1,1-DICHLOROPROPENE	0.250	ug/L	U	N	Y		U						L10080553-07	20:30
						1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N	Y		U						L10080553-07	20:30
						1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N	Y		U						L10080553-07	20:30
						1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N	Y		U						L10080553-07	20:30
						1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N	Y		U						L10080553-07	20:30
						1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N	Y		U						L10080553-07	20:30
						1,2-DIBROMOETHANE	0.250	ug/L	U	N	Y		U						L10080553-07	20:30
						1,2-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080553-07	20:30
						1,2-DICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080553-07	20:30
						1,2-DICHLOROPROPANE	0.200	ug/L	U	N	Y		U						L10080553-07	20:30
						1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N	Y		U						L10080553-07	20:30
						1,3-DICHLOROBENZENE	0.250	ug/L	U	N	Y		U						L10080553-07	20:30
						1,3-DICHLOROPROPANE	0.200	ug/L	U	N	Y		U						L10080553-07	20:30
						1,4-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080553-07	20:30
						2,2-DICHLOROPROPANE	0.250	ug/L	U	N	Y		U						L10080553-07	20:30
						2-BUTANONE	2.50	ug/L	U	N	Y		U						L10080553-07	20:30
						2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N	Y		U						L10080553-07	20:30
						2-CHLOROTOLUENE	0.125	ug/L	U	N	Y		U						L10080553-07	20:30
						2-HEXANONE	2.50	ug/L	U	N	Y		U						L10080553-07	20:30
						4-CHLOROTOLUENE	0.250	ug/L	U	N	Y		U						L10080553-07	20:30
						4-METHYL-2-PENTANONE	2.50	ug/L	U	N	Y		U						L10080553-07	20:30
						ACETONE	6.34	ug/L	J	Y	Y		J						L10080553-07	20:30
						BENZENE	0.125	ug/L	U	N	Y		U						L10080553-07	20:30
						BROMOBENZENE	0.125	ug/L	U	N	Y		U						L10080553-07	20:30
						BROMOCHLOROMETHANE	0.200	ug/L	U	N	Y		U						L10080553-07	20:30
						BROMODICHLOROMETHANE	0.250	ug/L	U	N	Y		U						L10080553-07	20:30
						BROMOFORM	0.500	ug/L	U	N	Y		U						L10080553-07	20:30
						BROMOMETHANE	0.500	ug/L	U	N	Y		U						L10080553-07	20:30
						CARBON DISULFIDE	0.500	ug/L	U	N	Y		U						L10080553-07	20:30
						CARBON TETRACHLORIDE	0.250	ug/L	U	N	Y		U						L10080553-07	20:30
						CHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080553-07	20:30
						CHLORODIBROMOMETHANE	0.250	ug/L	U	N	Y		U						L10080553-07	20:30
						CHLOROETHANE	0.500	ug/L	U	N	Y		U						L10080553-07	20:30
						CHLOROFORM	0.125	ug/L	U	N	Y		U						L10080553-07	20:30
						CHLOROMETHANE	0.500	ug/L	U	N	Y		U						L10080553-07	20:30
						CIS-1,2-DICHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080553-07	20:30

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Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47DPT09-100820	SW8260B	SW5030	N 0 1	CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				DIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				ETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				HEXACHLOROBUTADIENE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				ISOPROPYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				M-,P-XYLENE	0.500	ug/L	U	N Y	U			L10080553-07	20:30
				METHYLENE CHLORIDE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				N-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				N-PROPYLBENZENE	0.125	ug/L	U	N Y	U			L10080553-07	20:30
				NAPHTHALENE	0.200	ug/L	U	N Y	U			L10080553-07	20:30
				O-XYLENE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				P-ISOPROPYLTOLUENE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				SEC-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				STYRENE	0.125	ug/L	U	N Y	U			L10080553-07	20:30
				TERT-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				TETRACHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				TOLUENE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				TRANS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N Y	U			L10080553-07	20:30
				TRICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
				VINYL ACETATE	2.50	ug/L	U	N Y	U			L10080553-07	20:30
				VINYL CHLORIDE	0.250	ug/L	U	N Y	U			L10080553-07	20:30
47DPT10-100820	SW8260B	SW5030	N 0 1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-02	17:52
				1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-02	17:52
				1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N Y	U			L10080553-02	17:52
				1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-02	17:52
				1,1-DICHLOROETHANE	0.125	ug/L	U	N Y	U			L10080553-02	17:52
				1,1-DICHLOROETHENE	0.500	ug/L	U	N Y	U			L10080553-02	17:52
				1,1-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080553-02	17:52
				1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N Y	U			L10080553-02	17:52
				1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N Y	U			L10080553-02	17:52
				1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N Y	U			L10080553-02	17:52
				1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-02	17:52
				1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N Y	U			L10080553-02	17:52
				1,2-DIBROMOETHANE	0.250	ug/L	U	N Y	U			L10080553-02	17:52
				1,2-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080553-02	17:52
				1,2-DICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-02	17:52
				1,2-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080553-02	17:52
				1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-02	17:52
				1,3-DICHLOROBENZENE	0.250	ug/L	U	N Y	U			L10080553-02	17:52
				1,3-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080553-02	17:52

Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

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Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47DPT10-100820	SW8260B	SW5030	N 0 1	1,4-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080553-02	17:52
				2,2-DICHLOROPROPANE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				2-BUTANONE	2.86	ug/L	J	Y	Y		J						L10080553-02	17:52
				2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N	Y		U						L10080553-02	17:52
				2-CHLOROTOLUENE	0.125	ug/L	U	N	Y		U						L10080553-02	17:52
				2-HEXANONE	2.50	ug/L	U	N	Y		U						L10080553-02	17:52
				4-CHLOROTOLUENE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				4-METHYL-2-PENTANONE	2.50	ug/L	U	N	Y		U						L10080553-02	17:52
				ACETONE	20.0	ug/L		Y	Y								L10080553-02	17:52
				BENZENE	0.125	ug/L	U	N	Y		U						L10080553-02	17:52
				BROMOBENZENE	0.125	ug/L	U	N	Y		U						L10080553-02	17:52
				BROMOCHLOROMETHANE	0.200	ug/L	U	N	Y		U						L10080553-02	17:52
				BROMODICHLOROMETHANE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				BROMOFORM	0.500	ug/L	U	N	Y		U						L10080553-02	17:52
				BROMOMETHANE	0.500	ug/L	U	N	Y		U						L10080553-02	17:52
				CARBON DISULFIDE	0.500	ug/L	U	N	Y		U						L10080553-02	17:52
				CARBON TETRACHLORIDE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				CHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080553-02	17:52
				CHLORODIBROMOMETHANE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				CHLOROETHANE	0.500	ug/L	U	N	Y		U						L10080553-02	17:52
				CHLOROFORM	0.125	ug/L	U	N	Y		U						L10080553-02	17:52
				CHLOROMETHANE	1.13	ug/L		Y	Y								L10080553-02	17:52
				CIS-1,2-DICHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				DIBROMOMETHANE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				ETHYLBENZENE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				HEXACHLOROBUTADIENE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				ISOPROPYLBENZENE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				M-,P-XYLENE	0.500	ug/L	U	N	Y		U						L10080553-02	17:52
				METHYLENE CHLORIDE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				N-BUTYLBENZENE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				N-PROPYLBENZENE	0.125	ug/L	U	N	Y		U						L10080553-02	17:52
				NAPHTHALENE	0.200	ug/L	U	N	Y		U						L10080553-02	17:52
				O-XYLENE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				P-ISOPROPYLTOLUENE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				SEC-BUTYLBENZENE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				STYRENE	0.125	ug/L	U	N	Y		U						L10080553-02	17:52
				TERT-BUTYLBENZENE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				TETRACHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				TOLUENE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				TRANS-1,2-DICHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52
				TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N	Y		U						L10080553-02	17:52
				TRICHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080553-02	17:52

Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

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Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47DPT10-100820	SW8260B	SW5030	N	0	1	TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N	Y		U			L10080553-02	17:52
						VINYL ACETATE	2.50	ug/L	U	N	Y		U			L10080553-02	17:52
						VINYL CHLORIDE	0.250	ug/L	U	N	Y		U			L10080553-02	17:52
47DPT11-100820	SW8260B	SW5030	N	0	1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N	Y		U			L10080553-04	18:55
						1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U			L10080553-04	18:55
						1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N	Y		U			L10080553-04	18:55
						1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U			L10080553-04	18:55
						1,1-DICHLOROETHANE	0.125	ug/L	U	N	Y		U			L10080553-04	18:55
						1,1-DICHLOROETHENE	0.500	ug/L	U	N	Y		U			L10080553-04	18:55
						1,1-DICHLOROPROPENE	0.250	ug/L	U	N	Y		U			L10080553-04	18:55
						1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N	Y		U			L10080553-04	18:55
						1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N	Y		U			L10080553-04	18:55
						1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N	Y		U			L10080553-04	18:55
						1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N	Y		U			L10080553-04	18:55
						1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N	Y		U			L10080553-04	18:55
						1,2-DIBROMOETHANE	0.250	ug/L	U	N	Y		U			L10080553-04	18:55
						1,2-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U			L10080553-04	18:55
						1,2-DICHLOROETHANE	0.250	ug/L	U	N	Y		U			L10080553-04	18:55
						1,2-DICHLOROPROPANE	0.200	ug/L	U	N	Y		U			L10080553-04	18:55
						1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N	Y		U			L10080553-04	18:55
						1,3-DICHLOROBENZENE	0.250	ug/L	U	N	Y		U			L10080553-04	18:55
						1,3-DICHLOROPROPANE	0.200	ug/L	U	N	Y		U			L10080553-04	18:55
						1,4-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U			L10080553-04	18:55
						2,2-DICHLOROPROPANE	0.250	ug/L	U	N	Y		U			L10080553-04	18:55
						2-BUTANONE	2.50	ug/L	U	N	Y		U			L10080553-04	18:55
						2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N	Y		U			L10080553-04	18:55
						2-CHLOROTOLUENE	0.125	ug/L	U	N	Y		U			L10080553-04	18:55
						2-HEXANONE	2.50	ug/L	U	N	Y		U			L10080553-04	18:55
						4-CHLOROTOLUENE	0.250	ug/L	U	N	Y		U			L10080553-04	18:55
						4-METHYL-2-PENTANONE	2.50	ug/L	U	N	Y		U			L10080553-04	18:55
						ACETONE	3.83	ug/L	J	Y	Y		J			L10080553-04	18:55
						BENZENE	0.125	ug/L	U	N	Y		U			L10080553-04	18:55
						BROMOBENZENE	0.125	ug/L	U	N	Y		U			L10080553-04	18:55
						BROMOCHLOROMETHANE	0.200	ug/L	U	N	Y		U			L10080553-04	18:55
						BROMODICHLOROMETHANE	0.250	ug/L	U	N	Y		U			L10080553-04	18:55
						BROMOFORM	0.500	ug/L	U	N	Y		U			L10080553-04	18:55
						BROMOMETHANE	0.500	ug/L	U	N	Y		U			L10080553-04	18:55
						CARBON DISULFIDE	0.500	ug/L	U	N	Y		U			L10080553-04	18:55
						CARBON TETRACHLORIDE	0.250	ug/L	U	N	Y		U			L10080553-04	18:55
						CHLOROBENZENE	0.125	ug/L	U	N	Y		U			L10080553-04	18:55
						CHLORODIBROMOMETHANE	0.250	ug/L	U	N	Y		U			L10080553-04	18:55
						CHLOROETHANE	0.500	ug/L	U	N	Y		U			L10080553-04	18:55
						CHLOROFORM	0.125	ug/L	U	N	Y		U			L10080553-04	18:55

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Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47DPT11-100820	SW8260B	SW5030	N 0 1	CHLOROMETHANE	0.500	ug/L	U	N Y	U			L10080553-04	18:55
				CIS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				DIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				ETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				HEXACHLOROBUTADIENE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				ISOPROPYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				M-,P-XYLENE	0.500	ug/L	U	N Y	U			L10080553-04	18:55
				METHYLENE CHLORIDE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				N-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				N-PROPYLBENZENE	0.125	ug/L	U	N Y	U			L10080553-04	18:55
				NAPHTHALENE	0.200	ug/L	U	N Y	U			L10080553-04	18:55
				O-XYLENE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				P-ISOPROPYLTOLUENE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				SEC-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				STYRENE	0.125	ug/L	U	N Y	U			L10080553-04	18:55
				TERT-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				TETRACHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				TOLUENE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				TRANS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N Y	U			L10080553-04	18:55
				TRICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
				VINYL ACETATE	2.50	ug/L	U	N Y	U			L10080553-04	18:55
				VINYL CHLORIDE	0.250	ug/L	U	N Y	U			L10080553-04	18:55
47DPT12-100820	SW8260B	SW5030	N 0 1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N Y	U			L10080553-05	19:27
				1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				1,1-DICHLOROETHANE	0.125	ug/L	U	N Y	U			L10080553-05	19:27
				1,1-DICHLOROETHENE	0.500	ug/L	U	N Y	U			L10080553-05	19:27
				1,1-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N Y	U			L10080553-05	19:27
				1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N Y	U			L10080553-05	19:27
				1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N Y	U			L10080553-05	19:27
				1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N Y	U			L10080553-05	19:27
				1,2-DIBROMOETHANE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				1,2-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080553-05	19:27
				1,2-DICHLOROETHANE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				1,2-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080553-05	19:27
				1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27

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Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47DPT12-100820	SW8260B	SW5030	N 0 1	1,3-DICHLOROBENZENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				1,3-DICHLOROPROPANE	0.200	ug/L	U	N Y	U			L10080553-05	19:27
				1,4-DICHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080553-05	19:27
				2,2-DICHLOROPROPANE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				2-BUTANONE	2.50	ug/L	U	N Y	U			L10080553-05	19:27
				2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N Y	U			L10080553-05	19:27
				2-CHLOROTOLUENE	0.125	ug/L	U	N Y	U			L10080553-05	19:27
				2-HEXANONE	2.50	ug/L	U	N Y	U			L10080553-05	19:27
				4-CHLOROTOLUENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				4-METHYL-2-PENTANONE	2.50	ug/L	U	N Y	U			L10080553-05	19:27
				ACETONE	4.44	ug/L	J	Y Y	J			L10080553-05	19:27
				BENZENE	0.125	ug/L	U	N Y	U			L10080553-05	19:27
				BROMOBENZENE	0.125	ug/L	U	N Y	U			L10080553-05	19:27
				BROMOCHLOROMETHANE	0.200	ug/L	U	N Y	U			L10080553-05	19:27
				BROMODICHLOROMETHANE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				BROMOFORM	0.500	ug/L	U	N Y	U			L10080553-05	19:27
				BROMOMETHANE	0.500	ug/L	U	N Y	U			L10080553-05	19:27
				CARBON DISULFIDE	0.500	ug/L	U	N Y	U			L10080553-05	19:27
				CARBON TETRACHLORIDE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				CHLOROBENZENE	0.125	ug/L	U	N Y	U			L10080553-05	19:27
				CHLORODIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				CHLOROETHANE	0.500	ug/L	U	N Y	U			L10080553-05	19:27
				CHLOROFORM	0.125	ug/L	U	N Y	U			L10080553-05	19:27
				CHLOROMETHANE	0.500	ug/L	U	N Y	U			L10080553-05	19:27
				CIS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				DIBROMOMETHANE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				ETHYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				HEXACHLOROBUTADIENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				ISOPROPYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				M-,P-XYLENE	0.500	ug/L	U	N Y	U			L10080553-05	19:27
				METHYLENE CHLORIDE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				N-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				N-PROPYLBENZENE	0.125	ug/L	U	N Y	U			L10080553-05	19:27
				NAPHTHALENE	0.200	ug/L	U	N Y	U			L10080553-05	19:27
				O-XYLENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				P-ISOPROPYLTOLUENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				SEC-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				STYRENE	0.125	ug/L	U	N Y	U			L10080553-05	19:27
				TERT-BUTYLBENZENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				TETRACHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				TOLUENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27
				TRANS-1,2-DICHLOROETHENE	0.250	ug/L	U	N Y	U			L10080553-05	19:27

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Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47DPT12-100820	SW8260B	SW5030	N	0	1	TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N	Y		U						L10080553-05	19:27
						TRICHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080553-05	19:27
						TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N	Y		U						L10080553-05	19:27
						VINYL ACETATE	2.50	ug/L	U	N	Y		U						L10080553-05	19:27
						VINYL CHLORIDE	0.250	ug/L	U	N	Y		U						L10080553-05	19:27
47DPT13-100820	SW6850	NONE	N	0	1	PERCHLORATE	1.09	ug/L		Y	Y								L10080553-08	12:10
DUP1-100820	SW8260B	SW5030	N	0	1	1,1,1,2-TETRACHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						1,1,1-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						1,1,2,2-TETRACHLOROETHANE	0.200	ug/L	U	N	Y		U						L10080553-03	18:24
						1,1,2-TRICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						1,1-DICHLOROETHANE	0.125	ug/L	U	N	Y		U						L10080553-03	18:24
						1,1-DICHLOROETHENE	0.500	ug/L	U	N	Y		U						L10080553-03	18:24
						1,1-DICHLOROPROPENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						1,2,3-TRICHLOROBENZENE	0.150	ug/L	U	N	Y		U						L10080553-03	18:24
						1,2,3-TRICHLOROPROPANE	0.500	ug/L	U	N	Y		U						L10080553-03	18:24
						1,2,4-TRICHLOROBENZENE	0.200	ug/L	U	N	Y		U						L10080553-03	18:24
						1,2,4-TRIMETHYLBENZENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						1,2-DIBROMO-3-CHLOROPROPANE	1.00	ug/L	U	N	Y		U						L10080553-03	18:24
						1,2-DIBROMOETHANE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						1,2-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080553-03	18:24
						1,2-DICHLOROETHANE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						1,2-DICHLOROPROPANE	0.200	ug/L	U	N	Y		U						L10080553-03	18:24
						1,3,5-TRIMETHYLBENZENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						1,3-DICHLOROBENZENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						1,3-DICHLOROPROPANE	0.200	ug/L	U	N	Y		U						L10080553-03	18:24
						1,4-DICHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080553-03	18:24
						2,2-DICHLOROPROPANE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						2-BUTANONE	2.87	ug/L	J	Y	Y		J						L10080553-03	18:24
						2-CHLOROETHYL VINYL ETHER	2.00	ug/L	U	N	Y		U						L10080553-03	18:24
						2-CHLOROTOLUENE	0.125	ug/L	U	N	Y		U						L10080553-03	18:24
						2-HEXANONE	2.50	ug/L	U	N	Y		U						L10080553-03	18:24
						4-CHLOROTOLUENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						4-METHYL-2-PENTANONE	2.50	ug/L	U	N	Y		U						L10080553-03	18:24
						ACETONE	18.5	ug/L		Y	Y								L10080553-03	18:24
						BENZENE	0.125	ug/L	U	N	Y		U						L10080553-03	18:24
						BROMOBENZENE	0.125	ug/L	U	N	Y		U						L10080553-03	18:24
						BROMOCHLOROMETHANE	0.200	ug/L	U	N	Y		U						L10080553-03	18:24
						BROMODICHLOROMETHANE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						BROMOFORM	0.500	ug/L	U	N	Y		U						L10080553-03	18:24
						BROMOMETHANE	0.500	ug/L	U	N	Y		U						L10080553-03	18:24
						CARBON DISULFIDE	0.500	ug/L	U	N	Y		U						L10080553-03	18:24
						CARBON TETRACHLORIDE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						CHLOROBENZENE	0.125	ug/L	U	N	Y		U						L10080553-03	18:24

Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
DUP1-100820	SW8260B	SW5030	N	0	1	CHLORODIBROMOMETHANE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						CHLOROETHANE	0.500	ug/L	U	N	Y		U						L10080553-03	18:24
						CHLOROFORM	0.125	ug/L	U	N	Y		U						L10080553-03	18:24
						CHLOROMETHANE	0.500	ug/L	U	N	Y		U						L10080553-03	18:24
						CIS-1,2-DICHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						CIS-1,3-DICHLOROPROPENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						DIBROMOMETHANE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						DICHLORODIFLUOROMETHANE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						ETHYLBENZENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						HEXACHLOROBUTADIENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						ISOPROPYLBENZENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						M-,P-XYLENE	0.500	ug/L	U	N	Y		U						L10080553-03	18:24
						METHYLENE CHLORIDE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						N-BUTYLBENZENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						N-PROPYLBENZENE	0.125	ug/L	U	N	Y		U						L10080553-03	18:24
						NAPHTHALENE	0.200	ug/L	U	N	Y		U						L10080553-03	18:24
						O-XYLENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						P-ISOPROPYLTOLUENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						SEC-BUTYLBENZENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						STYRENE	0.125	ug/L	U	N	Y		U						L10080553-03	18:24
						TERT-BUTYLBENZENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						TETRACHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						TOLUENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						TRANS-1,2-DICHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						TRANS-1,3-DICHLOROPROPENE	0.500	ug/L	U	N	Y		U						L10080553-03	18:24
						TRICHLOROETHENE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						TRICHLOROFLUOROMETHANE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24
						VINYL ACETATE	2.50	ug/L	U	N	Y		U						L10080553-03	18:24
						VINYL CHLORIDE	0.250	ug/L	U	N	Y		U						L10080553-03	18:24

LI0080553 00104915

Chain of Custody

NO. 6006

Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

Laboratory Name: Environmental Waste Solutions c/o MICROBAC Address: 158 STARLITE DR. MARIETTA, OH. 45750 Contact: Stephanie MOSSBURG

Project Name: LHAAP Project Location: KARNACK, TX.

Project No.: 117591.0009A130. Project Contact: Jen HOANG Project Telephone No.: 281-531-3108

Point of Contact: Scott Beesinger Telephone No.: 903-679-3448

Project Manager/Supervisor: PRAVEEN SRIVASTAV

Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	VOC	Perchlorate method 6850	Remarks
1	47DPT08-100820	8/20/10	9:25		✓	W	SITE 47	2	✓		
2	47DPT10-100820	8/20/10	7:55		✓	W	SITE 47	2	✓		
3	Dup1-100820	8/20/10	8:00		✓	W	SITE 47	2	✓		
4	47DPT11-100820	8/20/10	8:45		✓	W	SITE 47	2	✓		
5	47DPT12-100820	8/20/10	9:00		✓	W	SITE 47	2	✓		
6	47DPT07-100820	8/20/10	9:45		✓	W	SITE 47	2	✓		
7	47DPT09-100820	8/20/10	10:00		✓	W	SITE 47	2	✓		
8	47DPT13-100820	8/20/10	10:20		✓	W	SITE 47	1		✓	
9											
10											

Analysis and Method Desired (Indicate separate containers)

Transfers Relinquished By (signature)	Date/Time	Transfers Accepted By (signature)	Date/Time
Scott Beesinger	8/20/10 12:00		

Special Instructions: 24 HR. TAT

FedEx Airbill No.:

Sampler's Signature: Scott Beesinger

TAT: ____ Standard ____ Rush Date ____

tion ____ Y ____ N ____ Cold

Microbac OVD
Received: 08/21/2010 11:01
By: ROBIN KLINGER
221000008378

Robin L. Klinger

White - Lab Copy Canary - Field Copy Pink - File Copy

Form Number: 433_2
Rev. 10-19-07



COOLER INSPECTION

Microbac

Received: 08/21/2010 11:01
Delivery Method: UPS
Opened By: Robin Klinger
Comments:

Login(s): L10080553|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0014662	H	3.0	1Z66V7254499289141	6006	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (<6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080553
Account: 2773
Project: 2773.025
Samples: 8
Due Date: 24-AUG-2010

Samplenum	Container ID	Products
L10080553-01	728347	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	23-AUG-2010 09:20	JKT	
2	ANALYZ	V1	ORG4	23-AUG-2010 09:46	FJB	JKT
3	STORE	ORG4	A1	02-SEP-2010 08:14	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	23-AUG-2010 09:20	JKT	
2	ANALYZ	V1	ORG4	23-AUG-2010 09:46	FJB	JKT
3	STORE	ORG4	A1	02-SEP-2010 08:14	JKT	MRT

Samplenum	Container ID	Products
L10080553-02	728348	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	23-AUG-2010 09:20	JKT	
2	ANALYZ	V1	ORG4	23-AUG-2010 09:46	FJB	JKT
3	STORE	ORG4	A1	02-SEP-2010 08:14	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	23-AUG-2010 09:20	JKT	
2	ANALYZ	V1	ORG4	23-AUG-2010 09:46	FJB	JKT
3	STORE	ORG4	A1	02-SEP-2010 08:14	JKT	MRT

Samplenum	Container ID	Products
L10080553-03	728349	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	23-AUG-2010 09:20	JKT	
2	ANALYZ	V1	ORG4	23-AUG-2010 09:47	FJB	JKT
3	STORE	ORG4	A1	02-SEP-2010 08:14	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	23-AUG-2010 09:20	JKT	
2	ANALYZ	V1	ORG4	23-AUG-2010 09:47	FJB	JKT
3	STORE	ORG4	A1	02-SEP-2010 08:14	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080553
Account: 2773
Project: 2773.025
Samples: 8
Due Date: 24-AUG-2010

Samplenum	Container ID	Products
L10080553-04	728350	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	23-AUG-2010 09:20	JKT	
2	ANALYZ	V1	ORG4	23-AUG-2010 09:47	FJB	JKT
3	STORE	ORG4	A1	02-SEP-2010 08:14	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	23-AUG-2010 09:20	JKT	
2	ANALYZ	V1	ORG4	23-AUG-2010 09:47	FJB	JKT
3	STORE	ORG4	A1	02-SEP-2010 08:14	JKT	MRT

Samplenum	Container ID	Products
L10080553-05	728351	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	23-AUG-2010 09:20	JKT	
2	ANALYZ	V1	ORG4	23-AUG-2010 09:47	FJB	JKT
3	STORE	ORG4	A1	02-SEP-2010 08:14	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	23-AUG-2010 09:20	JKT	
2	ANALYZ	V1	ORG4	23-AUG-2010 09:47	FJB	JKT
3	STORE	ORG4	A1	02-SEP-2010 08:14	JKT	MRT

Samplenum	Container ID	Products
L10080553-06	728352	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	23-AUG-2010 09:20	JKT	
2	ANALYZ	V1	ORG4	23-AUG-2010 09:47	FJB	JKT
3	STORE	ORG4	A1	02-SEP-2010 08:14	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	23-AUG-2010 09:20	JKT	
2	ANALYZ	V1	ORG4	23-AUG-2010 09:47	FJB	JKT
3	STORE	ORG4	A1	02-SEP-2010 08:14	JKT	MRT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Watkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080553
Account: 2773
Project: 2773.025
Samples: 8
Due Date: 24-AUG-2010

Samplenum	Container ID	Products
L10080553-07	728353	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	23-AUG-2010 09:20	JKT	
2	ANALYZ	V1	ORG4	23-AUG-2010 09:47	FJB	JKT
3	STORE	ORG4	A1	02-SEP-2010 08:14	JKT	MRT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	23-AUG-2010 09:20	JKT	
2	ANALYZ	V1	ORG4	23-AUG-2010 09:47	FJB	JKT
3	STORE	ORG4	A1	02-SEP-2010 08:14	JKT	MRT

Samplenum	Container ID	Products
L10080553-08	728354	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	23-AUG-2010 09:20	JKT	
2	ANALYZ	W1	SEM	23-AUG-2010 10:13	WTD	RLK
3	STORE	SEM	A1	25-AUG-2010 11:18	RLK	WTD

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080553

08/27/10 10:02

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47DPT08-100820	L10080553-01	8260B	1	21-AUG-10
47DPT08-100820	L10080553-01	8260B	1	21-AUG-10
47DPT10-100820	L10080553-02	8260B	1	21-AUG-10
DUP1-100820	L10080553-03	8260B	1	21-AUG-10
47DPT11-100820	L10080553-04	8260B	1	21-AUG-10
47DPT12-100820	L10080553-05	8260B	1	21-AUG-10
47DPT07-100820	L10080553-06	8260B	1	21-AUG-10
47DPT09-100820	L10080553-07	8260B	1	21-AUG-10

00104926

Report Number: L10080553
Report Date : August 27, 2010

Sample Number: L10080553-01
Client ID: 47DPT08-100820
Matrix: Water
Workgroup Number: WG340500
Collect Date: 08/20/2010 09:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/23/2010 17:20
Cal Date: 08/19/2010 17:19
Run Date: 08/23/2010 17:20
File ID: 10M81485

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	2.65	J	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3	0.984	J	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6	0.627	J	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

10/6/10

Microbac

(Void company)

00104927

Report Number: L10080553
Report Date : August 27, 2010

Sample Number: L10080553-01
Client ID: 47DPT08-100820
Matrix: Water
Workgroup Number: WG340500
Collect Date: 08/20/2010 09:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/23/2010 17:20
Cal Date: 08/19/2010 17:19
Run Date: 08/23/2010 17:20
File ID: 10M81485

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	101	86	118	
1,2-Dichloroethane-d4	105	80	120	
Toluene-d8	97.7	88	110	
4-Bromofluorobenzene	96.6	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

10 ccaco

(Void carryover)

Microbac

Report Number: L10080553
Report Date : August 27, 2010

Sample Number: L10080553-01
Client ID: 47DPT08-100820
Matrix: Water
Workgroup Number: WG340651
Collect Date: 08/20/2010 09:25
Sample Tag: 02

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/24/2010 14:35
Cal Date: 08/19/2010 17:19
Run Date: 08/24/2010 14:35
File ID: 10M81512

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

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Report Number: L10080553
Report Date : August 27, 2010

Sample Number: L10080553-01
Client ID: 47DPT08-100820
Matrix: Water
Workgroup Number: WG340651
Collect Date: 08/20/2010 09:25
Sample Tag: 02

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/24/2010 14:35
Cal Date: 08/19/2010 17:19
Run Date: 08/24/2010 14:35
File ID: 10M81512

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	97.2	86	118	
1,2-Dichloroethane-d4	99.7	80	120	
Toluene-d8	97.2	88	110	
4-Bromofluorobenzene	96.6	86	115	

U Not detected at or above adjusted sample detection limit

Report Number: L10080553
Report Date : August 27, 2010

Sample Number: L10080553-02
Client ID: 47DPT10-100820
Matrix: Water
Workgroup Number: WG340500
Collect Date: 08/20/2010 07:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/23/2010 17:52
Cal Date: 08/19/2010 17:19
Run Date: 08/23/2010 17:52
File ID: 10M81486

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	20.0		10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3	2.86	J	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3	1.13		1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: L10080553
Report Date : August 27, 2010

Sample Number: L10080553-02
Client ID: 47DPT10-100820
Matrix: Water
Workgroup Number: WG340500
Collect Date: 08/20/2010 07:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/23/2010 17:52
Cal Date: 08/19/2010 17:19
Run Date: 08/23/2010 17:52
File ID: 10M81486

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	99.2	86	118	
1,2-Dichloroethane-d4	106	80	120	
Toluene-d8	98.3	88	110	
4-Bromofluorobenzene	98.2	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

9/1/10

Report Number: L10080553
Report Date : August 27, 2010

47 DUP 10

Sample Number: L10080553-03
Client ID: DUP1-100820
Matrix: Water
Workgroup Number: WG340500
Collect Date: 08/20/2010 08:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/23/2010 18:24
Cal Date: 08/19/2010 17:19
Run Date: 08/23/2010 18:24
File ID: 10M81487

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	18.5		10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3	2.87	J	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

J

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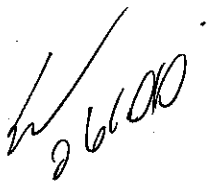
Report Number: L10080553
Report Date : August 27, 2010

Sample Number:	L10080553-03	PrePrep Method:	NONE	Instrument:	HPMS10
Client ID:	DUP1-100820	Prep Method:	5030B/5030C/5035	Prep Date:	08/23/2010 18:24
Matrix:	Water	Analytical Method:	8260B	Cal Date:	08/19/2010 17:19
Workgroup Number:	WG340500	Analyst:	TMB	Run Date:	08/23/2010 18:24
Collect Date:	08/20/2010 08:00	Dilution:	1	File ID:	10M81487
Sample Tag:	01	Units:	ug/L		

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	99.6	86	118	
1,2-Dichloroethane-d4	106	80	120	
Toluene-d8	99.9	88	110	
4-Bromofluorobenzene	100	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL



Report Number: L10080553
Report Date : August 27, 2010

Sample Number: L10080553-04
Client ID: 47DPT11-100820
Matrix: Water
Workgroup Number: WG340500
Collect Date: 08/20/2010 08:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/23/2010 18:55
Cal Date: 08/19/2010 17:19
Run Date: 08/23/2010 18:55
File ID: 10M81488

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	3.83	J	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Microbac

Report Number: L10080553
Report Date : August 27, 2010

Sample Number: L10080553-04
Client ID: 47DPT11-100820
Matrix: Water
Workgroup Number: WG340500
Collect Date: 08/20/2010 08:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/23/2010 18:55
Cal Date: 08/19/2010 17:19
Run Date: 08/23/2010 18:55
File ID: 10M81488

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	99.4	86	118	
1,2-Dichloroethane-d4	107	80	120	
Toluene-d8	99.6	88	110	
4-Bromofluorobenzene	97.5	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

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Report Number: L10080553
Report Date : August 27, 2010

Sample Number: L10080553-05
Client ID: 47DPT12-100820
Matrix: Water
Workgroup Number: WG340500
Collect Date: 08/20/2010 09:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/23/2010 19:27
Cal Date: 08/19/2010 17:19
Run Date: 08/23/2010 19:27
File ID: 10M81489

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	4.44	J	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

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Microbac

Report Number: L10080553
Report Date : August 27, 2010

Sample Number: L10080553-05
Client ID: 47DPT12-100820
Matrix: Water
Workgroup Number: WG340500
Collect Date: 08/20/2010 09:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/23/2010 19:27
Cal Date: 08/19/2010 17:19
Run Date: 08/23/2010 19:27
File ID: 10M81489

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	98.2	86	118	
1,2-Dichloroethane-d4	108	80	120	
Toluene-d8	97.4	88	110	
4-Bromofluorobenzene	98.0	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

Report Number: L10080553
Report Date : August 27, 2010

Sample Number: L10080553-06
Client ID: 47DPT07-100820
Matrix: Water
Workgroup Number: WG340500
Collect Date: 08/20/2010 09:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/23/2010 19:58
Cal Date: 08/19/2010 17:19
Run Date: 08/23/2010 19:58
File ID: 10M81490

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	8.75	J	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3	0.538	J	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3	0.263	J	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Microbac

10/6/10

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Report Number: L10080553
Report Date : August 27, 2010

Sample Number: L10080553-06
Client ID: 47DPT07-100820
Matrix: Water
Workgroup Number: WG340500
Collect Date: 08/20/2010 09:45
Sample Tag: 01

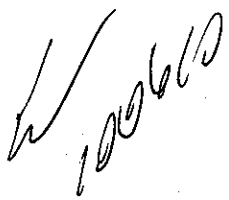
PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/23/2010 19:58
Cal Date: 08/19/2010 17:19
Run Date: 08/23/2010 19:58
File ID: 10M81490

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	101	86	118	
1,2-Dichloroethane-d4	105	80	120	
Toluene-d8	98.0	88	110	
4-Bromofluorobenzene	98.1	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL



Report Number: L10080553
Report Date : August 27, 2010

Sample Number: L10080553-07
Client ID: 47DPT09-100820
Matrix: Water
Workgroup Number: WG340500
Collect Date: 08/20/2010 10:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/23/2010 20:30
Cal Date: 08/19/2010 17:19
Run Date: 08/23/2010 20:30
File ID: 10M81491

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	6.34	J	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: L10080553
Report Date : August 27, 2010

Sample Number: L10080553-07
Client ID: 47DPT09-100820
Matrix: Water
Workgroup Number: WG340500
Collect Date: 08/20/2010 10:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B/5030C/5035
Analytical Method: 8260B
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS10
Prep Date: 08/23/2010 20:30
Cal Date: 08/19/2010 17:19
Run Date: 08/23/2010 20:30
File ID: 10M81491

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	97.9	86	118	
1,2-Dichloroethane-d4	107	80	120	
Toluene-d8	97.2	88	110	
4-Bromofluorobenzene	97.8	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

W 100410

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080553
Work Group: WG340500
Blank File ID: 10M81472
Blank Sample ID: WG340500-01
Prep Date: 08/23/10 10:29
Instrument ID: HPMS10
Analyzed Date: 08/23/10 10:29
Method: 8260B
Analyst: TMB

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG340500-02	10M81473	08/23/10 11:00	01
LCS2	WG340500-03	10M81474	08/23/10 11:32	01
47DPT08-100820	L10080553-01	10M81485	08/23/10 17:20	01
47DPT10-100820	L10080553-02	10M81486	08/23/10 17:52	01
DUP1-100820	L10080553-03	10M81487	08/23/10 18:24	01
47DPT11-100820	L10080553-04	10M81488	08/23/10 18:55	01
47DPT12-100820	L10080553-05	10M81489	08/23/10 19:27	01
47DPT07-100820	L10080553-06	10M81490	08/23/10 19:58	01
47DPT09-100820	L10080553-07	10M81491	08/23/10 20:30	01

Report Name: BLANK_SUMMARY
PDF File ID: 1762562
Report generated 08/26/2010 13:22

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080553
Blank File ID: 10M81506
Prep Date: 08/24/10 11:25
Analyzed Date: 08/24/10 11:25
Analyst: TMB

Work Group: WG340651
Blank Sample ID: WG340651-01
Instrument ID: HPMS10
Method: 8260B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG340651-02	10M81507	08/24/10 11:57	01
LCS2	WG340651-03	10M81508	08/24/10 12:29	01
47DPT08-100820	L10080553-01	10M81512	08/24/10 14:35	02

Report Name: BLANK_SUMMARY
PDF File ID: 1762562
Report generated 08/26/2010 13:22

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080553 Prep Date:08/23/10 10:29 Sample ID:WG340500-01
Instrument ID:HPMS10 Run Date:08/23/10 10:29 Prep Method:5030B/5030C/503
File ID:10M81472 Analyst:TMB Method:8260B
Workgroup (AAB#):WG340500 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID:HPMS10-19-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.500	1.00	0.500	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name:BLANK
PDF ID: 1762563
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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080553 Prep Date:08/23/10 10:29 Sample ID:WG340500-01
Instrument ID:HPMS10 Run Date:08/23/10 10:29 Prep Method:5030B/5030C/503
File ID:10M81472 Analyst:TMB Method:8260B
Workgroup (AAB#):WG340500 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID:HPMS10-19-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.200	1.00	0.200	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
Dibromofluoromethane	97.1	86	-	118	PASS
1,2-Dichloroethane-d4	98.4	80	-	120	PASS
Toluene-d8	99.6	88	-	110	PASS
4-Bromofluorobenzene	97.9	86	-	115	PASS

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1762563
26-AUG-2010 13:22

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METHOD BLANK REPORT

Login Number:L10080553 Prep Date:08/24/10 11:25 Sample ID:WG340651-01
Instrument ID:HPMS10 Run Date:08/24/10 11:25 Prep Method:5030B/5030C/503
File ID:10M81506 Analyst:TMB Method:8260B
Workgroup (AAB#):WG340651 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID:HPMS10-19-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.500	1.00	0.500	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name:BLANK
PDF ID: 1762563
26-AUG-2010 13:22

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METHOD BLANK REPORT

Login Number:L10080553 Prep Date:08/24/10 11:25 Sample ID:WG340651-01
Instrument ID:HPMS10 Run Date:08/24/10 11:25 Prep Method:5030B/5030C/503
File ID:10M81506 Analyst:TMB Method:8260B
Workgroup (AAB#):WG340651 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID:HPMS10-19-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.200	1.00	0.200	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits			Qualifier
Dibromofluoromethane	97.3	86	-	118	PASS
1,2-Dichloroethane-d4	100	80	-	120	PASS
Toluene-d8	99.4	88	-	110	PASS
4-Bromofluorobenzene	95.9	86	-	115	PASS

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1762563
26-AUG-2010 13:22

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080553 Analyst:TMB Prep Method:5030B/5030C/503
Instrument ID:HPMS10 Matrix:Water Method:8260B
Workgroup (AAB#):WG340651 Units:ug/L
QC Key:STD Lot #:STD40901

Sample ID:WG340651-02 LCS File ID:10M81507 Run Date:08/24/2010 11:57
Sample ID:WG340651-03 LCS2 File ID:10M81508 Run Date:08/24/2010 12:29

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	24.2	121	20.0	24.9	124	2.91	40 - 180	20	
Benzene	20.0	19.1	95.4	20.0	17.9	89.4	6.53	80 - 121	20	
Bromobenzene	20.0	19.7	98.7	20.0	19.1	95.3	3.48	80 - 120	20	
Bromochloromethane	20.0	20.6	103	20.0	20.3	102	1.24	65 - 130	20	
Bromodichloromethane	20.0	23.0	115	20.0	22.2	111	3.36	80 - 131	20	
Bromoform	20.0	21.7	108	20.0	22.2	111	2.69	70 - 130	20	
Bromomethane	20.0	18.2	90.8	20.0	18.0	90.2	0.714	30 - 145	20	
2-Butanone	20.0	22.0	110	20.0	22.0	110	0.269	10 - 170	20	
n-Butylbenzene	20.0	19.6	98.0	20.0	18.5	92.6	5.58	80 - 131	20	
sec-Butylbenzene	20.0	19.7	98.5	20.0	18.7	93.4	5.35	80 - 127	20	
tert-Butylbenzene	20.0	19.6	98.2	20.0	18.5	92.5	5.94	80 - 126	20	
Carbon disulfide	20.0	20.6	103	20.0	18.7	93.7	9.61	58 - 128	20	
Carbon tetrachloride	20.0	22.6	113	20.0	20.3	102	10.6	65 - 140	20	
Chlorobenzene	20.0	19.6	97.8	20.0	18.9	94.4	3.62	80 - 120	20	
Chlorodibromomethane	20.0	21.9	110	20.0	22.1	110	0.600	60 - 135	20	
Chloroethane	20.0	19.4	96.9	20.0	18.7	93.4	3.71	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	19.7	98.7	20.0	19.9	99.3	0.620	45 - 160	20	
Chloroform	20.0	20.4	102	20.0	19.7	98.6	3.57	80 - 125	20	
Chloromethane	20.0	19.1	95.3	20.0	17.1	85.4	11.0	40 - 125	20	
2-Chlorotoluene	20.0	19.3	96.5	20.0	18.9	94.6	1.98	80 - 127	20	
4-Chlorotoluene	20.0	19.6	98.1	20.0	18.6	92.9	5.51	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	21.4	107	20.0	21.8	109	1.78	50 - 130	20	
1,2-Dibromoethane	20.0	20.0	99.8	20.0	20.2	101	1.31	80 - 129	20	
Dibromomethane	20.0	21.7	108	20.0	22.0	110	1.55	75 - 125	20	
1,2-Dichlorobenzene	20.0	20.4	102	20.0	19.4	97.0	4.88	80 - 125	20	
1,3-Dichlorobenzene	20.0	19.5	97.6	20.0	19.0	95.0	2.77	80 - 120	20	
1,4-Dichlorobenzene	20.0	18.7	93.5	20.0	18.4	92.0	1.59	80 - 120	20	
Dichlorodifluoromethane	20.0	20.1	101	20.0	18.2	91.2	9.80	40 - 160	20	
1,1-Dichloroethane	20.0	21.1	105	20.0	20.0	99.9	5.47	80 - 125	20	
1,2-Dichloroethane	20.0	22.6	113	20.0	21.8	109	3.30	80 - 129	20	
1,1-Dichloroethene	20.0	19.4	96.8	20.0	17.9	89.7	7.62	80 - 132	20	
cis-1,2-Dichloroethene	20.0	19.7	98.5	20.0	19.1	95.5	3.08	70 - 125	20	
trans-1,2-Dichloroethene	20.0	19.4	96.8	20.0	18.3	91.5	5.61	80 - 127	20	
1,2-Dichloropropane	20.0	20.5	102	20.0	19.6	98.1	4.26	80 - 120	20	
1,3-Dichloropropane	20.0	19.8	99.0	20.0	19.6	98.2	0.893	80 - 120	20	
2,2-Dichloropropane	20.0	22.5	112	20.0	20.6	103	8.65	80 - 133	20	
cis-1,3-Dichloropropene	20.0	20.5	102	20.0	20.0	99.9	2.56	70 - 130	20	
trans-1,3-Dichloropropene	20.0	18.6	92.9	20.0	18.8	93.8	1.03	80 - 130	20	
1,1-Dichloropropene	20.0	19.3	96.5	20.0	18.4	92.1	4.69	75 - 130	20	
Ethylbenzene	20.0	19.4	97.2	20.0	18.5	92.6	4.91	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1759574
Report generated: 08/26/2010 13:22

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080553 Analyst:TMB Prep Method:5030B/5030C/503
Instrument ID:HPMS10 Matrix:Water Method:8260B
Workgroup (AAB#):WG340651 Units:ug/L
QC Key:STD Lot #:STD40901

Sample ID:WG340651-02 LCS File ID:10M81507 Run Date:08/24/2010 11:57
Sample ID:WG340651-03 LCS2 File ID:10M81508 Run Date:08/24/2010 12:29

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	19.4	97.2	20.0	20.2	101	3.94	55 - 130	20	
Hexachlorobutadiene	20.0	20.1	101	20.0	18.5	92.6	8.26	72 - 132	20	
Isopropylbenzene	20.0	18.2	91.2	20.0	17.3	86.4	5.40	80 - 122	20	
p-Isopropyltoluene	20.0	19.3	96.4	20.0	18.2	90.9	5.87	80 - 122	20	
4-Methyl-2-pentanone	20.0	19.3	96.5	20.0	20.0	100	3.58	64 - 140	20	
Methylene chloride	20.0	18.8	93.9	20.0	18.2	91.1	3.01	80 - 123	20	
Naphthalene	20.0	20.8	104	20.0	21.0	105	0.869	59 - 149	20	
n-Propylbenzene	20.0	19.8	98.9	20.0	18.5	92.6	6.63	80 - 129	20	
Styrene	20.0	20.5	103	20.0	19.8	99.0	3.53	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	20.6	103	20.0	20.0	99.9	3.32	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	20.2	101	20.0	20.7	103	2.44	79 - 125	20	
Tetrachloroethene	20.0	20.8	104	20.0	19.7	98.3	5.63	80 - 124	20	
Toluene	20.0	19.4	97.0	20.0	18.4	91.8	5.42	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	20.6	103	20.0	19.9	99.4	3.50	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	19.7	98.3	20.0	19.5	97.4	0.912	65 - 135	20	
1,1,1-Trichloroethane	20.0	22.0	110	20.0	20.6	103	6.55	80 - 134	20	
1,1,2-Trichloroethane	20.0	21.0	105	20.0	20.9	104	0.615	80 - 125	20	
Trichloroethene	20.0	19.9	99.4	20.0	19.2	95.8	3.65	80 - 122	20	
Trichlorofluoromethane	20.0	21.6	108	20.0	19.8	99.1	8.43	62 - 151	20	
1,2,3-Trichloropropane	20.0	21.1	106	20.0	21.6	108	2.35	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	19.9	99.7	20.0	19.1	95.6	4.10	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	20.2	101	20.0	19.1	95.7	5.57	80 - 127	20	
Vinyl acetate	20.0	10.8	53.8	20.0	10.9	54.4	0.981	10 - 190	20	
Vinyl chloride	20.0	19.8	99.2	20.0	18.7	93.6	5.75	50 - 170	20	
o-Xylene	20.0	19.8	98.8	20.0	19.1	95.4	3.49	80 - 122	20	
m-,p-Xylene	40.0	39.8	99.4	40.0	37.3	93.3	6.41	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	103	101	80 - 120	PASS
Dibromofluoromethane	102	101	86 - 118	PASS
4-Bromofluorobenzene	97.5	95.5	86 - 115	PASS
Toluene-d8	99.6	98.2	88 - 110	PASS

* EXCEEDS %REC LIMIT

\# EXCEEDS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID:1759574
Report generated: 08/26/2010 13:22

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080553 Analyst:TMB Prep Method:5030B/5030C/503
Instrument ID:HPMS10 Matrix:Water Method:8260B
Workgroup (AAB#):WG340500 Units:ug/L
QC Key:STD Lot #:STD40901

Sample ID:WG340500-02 LCS File ID:10M81473 Run Date:08/23/2010 11:00
Sample ID:WG340500-03 LCS2 File ID:10M81474 Run Date:08/23/2010 11:32

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	24.0	120	20.0	25.5	127	5.69	40 - 180	20	
Benzene	20.0	19.4	97.0	20.0	18.8	93.8	3.35	80 - 121	20	
Bromobenzene	20.0	20.9	104	20.0	20.1	100	3.78	80 - 120	20	
Bromochloromethane	20.0	21.2	106	20.0	21.6	108	1.54	65 - 130	20	
Bromodichloromethane	20.0	23.5	118	20.0	23.2	116	1.34	80 - 131	20	
Bromoform	20.0	22.0	110	20.0	22.4	112	1.73	70 - 130	20	
Bromomethane	20.0	19.7	98.3	20.0	19.4	96.9	1.44	30 - 145	20	
2-Butanone	20.0	21.9	109	20.0	22.9	115	4.72	10 - 170	20	
n-Butylbenzene	20.0	20.8	104	20.0	19.4	97.2	6.85	80 - 131	20	
sec-Butylbenzene	20.0	20.9	105	20.0	19.4	97.1	7.42	80 - 127	20	
tert-Butylbenzene	20.0	20.8	104	20.0	19.1	95.5	8.32	80 - 126	20	
Carbon disulfide	20.0	20.8	104	20.0	19.0	95.2	8.87	58 - 128	20	
Carbon tetrachloride	20.0	23.5	118	20.0	21.5	108	8.75	65 - 140	20	
Chlorobenzene	20.0	19.8	99.2	20.0	19.4	97.1	2.18	80 - 120	20	
Chlorodibromomethane	20.0	22.5	112	20.0	22.5	112	0.0289	60 - 135	20	
Chloroethane	20.0	20.7	103	20.0	19.7	98.5	4.81	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	20.8	104	20.0	20.9	104	0.308	45 - 160	20	
Chloroform	20.0	21.0	105	20.0	20.0	100	4.84	80 - 125	20	
Chloromethane	20.0	18.5	92.6	20.0	17.9	89.6	3.28	40 - 125	20	
2-Chlorotoluene	20.0	20.6	103	20.0	19.2	96.1	6.81	80 - 127	20	
4-Chlorotoluene	20.0	19.9	99.7	20.0	19.2	96.2	3.55	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	21.3	107	20.0	21.1	105	1.21	50 - 130	20	
1,2-Dibromoethane	20.0	20.6	103	20.0	21.0	105	1.84	80 - 129	20	
Dibromomethane	20.0	21.8	109	20.0	21.7	109	0.371	75 - 125	20	
1,2-Dichlorobenzene	20.0	20.9	105	20.0	20.4	102	2.40	80 - 125	20	
1,3-Dichlorobenzene	20.0	20.2	101	20.0	19.5	97.6	3.53	80 - 120	20	
1,4-Dichlorobenzene	20.0	19.8	99.0	20.0	18.8	93.9	5.24	80 - 120	20	
Dichlorodifluoromethane	20.0	22.6	113	20.0	19.2	96.2	16.2	40 - 160	20	
1,1-Dichloroethane	20.0	21.9	109	20.0	20.6	103	5.96	80 - 125	20	
1,2-Dichloroethane	20.0	23.0	115	20.0	21.8	109	5.27	80 - 129	20	
1,1-Dichloroethene	20.0	20.0	100	20.0	19.0	95.2	5.04	80 - 132	20	
cis-1,2-Dichloroethene	20.0	20.1	100	20.0	19.7	98.5	1.77	70 - 125	20	
trans-1,2-Dichloroethene	20.0	20.0	99.9	20.0	19.4	96.9	3.07	80 - 127	20	
1,2-Dichloropropane	20.0	21.0	105	20.0	20.3	101	3.63	80 - 120	20	
1,3-Dichloropropane	20.0	20.3	101	20.0	20.1	101	0.576	80 - 120	20	
2,2-Dichloropropane	20.0	23.7	118	20.0	22.0	110	7.09	80 - 133	20	
cis-1,3-Dichloropropene	20.0	20.8	104	20.0	20.5	102	1.57	70 - 130	20	
trans-1,3-Dichloropropene	20.0	19.5	97.4	20.0	19.2	95.8	1.65	80 - 130	20	
1,1-Dichloropropene	20.0	20.5	102	20.0	19.2	96.1	6.31	75 - 130	20	
Ethylbenzene	20.0	20.2	101	20.0	19.5	97.6	3.21	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID:1759574
Report generated: 08/26/2010 13:22

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080553 Analyst:TMB Prep Method:5030B/5030C/503
Instrument ID:HPMS10 Matrix:Water Method:8260B
Workgroup (AAB#):WG340500 Units:ug/L
QC Key:STD Lot #:STD40901

Sample ID:WG340500-02 LCS File ID:10M81473 Run Date:08/23/2010 11:00
Sample ID:WG340500-03 LCS2 File ID:10M81474 Run Date:08/23/2010 11:32

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	20.3	102	20.0	21.0	105	3.08	55 - 130	20	
Hexachlorobutadiene	20.0	21.5	107	20.0	19.5	97.6	9.49	72 - 132	20	
Isopropylbenzene	20.0	18.7	93.6	20.0	17.9	89.7	4.23	80 - 122	20	
p-Isopropyltoluene	20.0	20.5	102	20.0	19.1	95.3	7.08	80 - 122	20	
4-Methyl-2-pentanone	20.0	20.1	100	20.0	20.9	105	4.14	64 - 140	20	
Methylene chloride	20.0	19.4	97.1	20.0	19.1	95.5	1.67	80 - 123	20	
Naphthalene	20.0	21.6	108	20.0	21.2	106	1.58	59 - 149	20	
n-Propylbenzene	20.0	20.5	103	20.0	19.3	96.4	6.16	80 - 129	20	
Styrene	20.0	21.2	106	20.0	20.7	103	2.68	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	21.2	106	20.0	20.4	102	4.06	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	21.4	107	20.0	20.9	104	2.57	79 - 125	20	
Tetrachloroethene	20.0	21.4	107	20.0	20.4	102	4.66	80 - 124	20	
Toluene	20.0	20.0	100	20.0	19.5	97.4	2.74	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	21.3	106	20.0	20.2	101	5.02	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	20.7	104	20.0	20.0	99.8	3.71	65 - 135	20	
1,1,1-Trichloroethane	20.0	22.5	112	20.0	21.2	106	5.85	80 - 134	20	
1,1,2-Trichloroethane	20.0	21.6	108	20.0	21.8	109	0.930	80 - 125	20	
Trichloroethene	20.0	20.4	102	20.0	19.5	97.3	4.75	80 - 122	20	
Trichlorofluoromethane	20.0	23.0	115	20.0	20.7	103	10.5	62 - 151	20	
1,2,3-Trichloropropane	20.0	20.8	104	20.0	21.8	109	4.48	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	21.0	105	20.0	19.6	98.2	6.59	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	20.7	104	20.0	20.0	100	3.42	80 - 127	20	
Vinyl acetate	20.0	11.3	56.4	20.0	11.3	56.6	0.308	10 - 190	20	
Vinyl chloride	20.0	21.3	106	20.0	19.8	99.0	7.20	50 - 170	20	
o-Xylene	20.0	21.0	105	20.0	19.7	98.6	6.37	80 - 122	20	
m-,p-Xylene	40.0	40.4	101	40.0	38.6	96.4	4.58	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	102	101	80 - 120	PASS
Dibromofluoromethane	100	102	86 - 118	PASS
4-Bromofluorobenzene	97.3	97.4	86 - 115	PASS
Toluene-d8	98.7	101	88 - 110	PASS

* EXCEEDS %REC LIMIT

\# EXCEEDS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1759574
Report generated: 08/26/2010 13:22

2.2.1 LC/MS Data (6850)

2.2.1.1 Summary Data

LABORATORY REPORT

L10080553

08/27/10 10:02

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47DPT13-100820	L10080553-08	6850	1	21-AUG-10

00104956

Report Number: L10080553
Report Date : August 27, 2010

Sample Number: L10080553-08
Client ID: 47DPT13-100820
Matrix: Water
Workgroup Number: WG340532
Collect Date: 08/20/2010 10:20
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/L

Instrument: LCMS1
Prep Date: 08/24/2010 08:38
Cal Date: 08/19/2010 22:52
Run Date: 08/24/2010 12:10
File ID: 1LM.LM04795

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	1.09		0.200	0.100

1,90 8/10

Microbac

2.2.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080553
Blank File ID: 1LM.LM04791
Prep Date: 08/24/10 08:38
Analyzed Date: 08/24/10 10:25
Analyst: WTD

Work Group: WG340532
Blank Sample ID: WG340532-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG340532-05	1LM.LM04789	08/24/10 09:31	01
LCS	WG340532-03	1LM.LM04792	08/24/10 10:51	01
LCS2	WG340532-04	1LM.LM04793	08/24/10 11:17	01
MCT	WG340532-01	1LM.LM04794	08/24/10 11:44	01
47DPT13-100820	L10080553-08	1LM.LM04795	08/24/10 12:10	01
QCMRL	WG340532-06	1LM.LM04797	08/24/10 13:03	01

Report Name: BLANK_SUMMARY
PDF File ID: 1760476
Report generated 08/25/2010 13:13

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Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080553 Prep Date:08/24/10 08:38 Sample ID:WG340532-02
Instrument ID:LCMS1 Run Date:08/24/10 10:25 Prep Method:6850
File ID:1LM.LM04791 Analyst:WTD Method:6850
Workgroup (AAB#):WG340532 Matrix:Water Units:ug/L
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-19-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.100	0.200	0.100	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1760477
25-AUG-2010 13:13

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080553 Analyst:WTD Prep Method:6850
Instrument ID:LCMS1 Matrix:Water Method:6850
Workgroup (AAB#):WG340532 Units:ug/L
QC Key:STD Lot #:STD40906
Sample ID:WG340532-03 LCS File ID:1LM.LM04792 Run Date:08/24/2010 10:51
Sample ID:WG340532-04 LCS2 File ID:1LM.LM04793 Run Date:08/24/2010 11:17

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	0.200	0.207	104	0.200	0.205	103	0.971	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID:1760478
Report generated: 08/25/2010 13:13

Conductivity Probe Calibration Check: 1422 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG340532-01MCT	10,740	NA
-02BLK	0.0	↓
-03LCS	0.0	
-04LCS2	0.0	
L10080553-08	438	

Wade T. Dehy
Analyst

8-23-10/14:40
Date/Time

DCN#84144

00104962

Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47SB-C03(9-11)	D2216	NONE	N	0	1	PERCENT SOLIDS	81.5	Percent		Y	Y								L10080608-01	08:26
	SW6850	NONE	N	0	1	PERCHLORATE	1.21	ug/kg	U	N	Y		U						L10080608-01	01:31
47SB-C05(9-11)	D2216	NONE	N	0	1	PERCENT SOLIDS	89.6	Percent		Y	Y								L10080608-02	08:26
	SW6850	NONE	N	0	1	PERCHLORATE	1.10	ug/kg	U	N	Y		U						L10080608-02	01:57

ok
10/7/10

LL00806O8 00104963

COC NO. LHAAP47-082010-2

Shaw Environmental & Infrastructure, Inc.
1401 Enclave Parkway, Suite 250
Houston, TX 77077
(281) 531-3100

Lab Name: Environmental Waste Solutions C/O Microbac
Address : 158 Starlite Drive, Marietta OH 45750
Contact : Stephanie Mossburg
Phone: 1-800-373-4071

PM: Praveen Srivastav (281.531.3188) TAT: RUSH
Project Contact: Jen Hoang Phone No: 281-531-3108
Project Name: LHAAP Site: SITE 47
Project #: 117591-009A130 Location: Karnack, TX

Sampler Print: Allen Willmore (713.247.9292) Susan Oller (281.989.3544)
Sampler Sign:

Sample Number	Grab	Date	Time	Matrix	# Of Containers	Perchlorate (6850)-28day HT										Comments
47SB-C01(9-11)	x	NA	NA	Soil	NA	NA										
47SB-C03(9-11)	x	08/20/2010	13:00	Soil	1	X										
47SB-C05(9-11)	x	08/20/2010	13:30	Soil	1	X										
47SB-E01(9-11)	x	NA	NA	Soil	NA	NA										
47SB-E03(9-11)	x	NA	NA	Soil	NA	NA										
47SB-E05(9-11)	x	NA	NA	Soil	NA	NA										

Relinquished By:
Date/Time 8/24/10 17:00

Received By:
Date/Time

Special Instructions
C03(9-11) HOLD FOR INTERVAL (GW/VZ) RESULTS

Relinquished By:
Date/Time

Received for Laboratory By:
Date/Time

Remarks

Microbac OVD
Received: 08/24/2010 09:57
By: BRENDA GREENWALT
221000008411

Brenda Greenwalt

Page 47

COOLER INSPECTION

Microbac

Received: 08/24/2010 09:57
Delivery Method: UPS
Opened By: Brenda Greenwalt
Comments:

Login(s): L10080608

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
001-0008	H	4.0	1Z66V7250194845307	LHAAP47-082010-2	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (less than 6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080608
Account: 2773
Project: 2773.025
Samples: 2
Due Date: 25-AUG-2010

Samplenum	Container ID	Products
L10080608-01	729404	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	24-AUG-2010 12:14	JKT	
2	ANALYZ	W1	SEM	24-AUG-2010 13:52	WTD	RLK
3	ANALYZ	SEM	WET	24-AUG-2010 14:22	DIH	WTD
4	STORE	WET	W1	25-AUG-2010 08:10	RLK	DIH

Samplenum	Container ID	Products
L10080608-02	729405	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	24-AUG-2010 12:14	JKT	
2	ANALYZ	W1	SEM	24-AUG-2010 13:52	WTD	RLK
3	ANALYZ	SEM	WET	24-AUG-2010 14:22	DIH	WTD
4	STORE	WET	W1	25-AUG-2010 08:10	RLK	DIH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080608

08/27/10 13:43

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-C03(9-11)	L10080608-01	6850	1	24-AUG-10
47SB-C05(9-11)	L10080608-02	6850	1	24-AUG-10

Report Number: L10080608
Report Date : August 27, 2010

Sample Number: L10080608-01
Client ID: 47SB-C03(9-11)
Matrix: Soil
Workgroup Number: WG340701
Collect Date: 08/20/2010 13:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/24/2010 08:38
Cal Date: 08/19/2010 22:52
Run Date: 08/25/2010 01:31
File ID: 1LM.LM04825
Percent Solid: 81.5

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.43	1.21

U Not detected at or above adjusted sample detection limit

Report Number: L10080608
Report Date : August 27, 2010

Sample Number:	L10080608-02	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47SB-C05(9-11)	Prep Method:	6850	Prep Date:	08/24/2010 08:38
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/19/2010 22:52
Workgroup Number:	WG340701	Analyst:	WTD	Run Date:	08/25/2010 01:57
Collect Date:	08/20/2010 13:30	Dilution:	1	File ID:	1LM.LM04826
Sample Tag:	01	Units:	ug/kg	Percent Solid:	89.6

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.21	1.10

U Not detected at or above adjusted sample detection limit

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080608
Blank File ID: 1LM.LM04822
Prep Date: 08/24/10 08:38
Analyzed Date: 08/25/10 00:12
Analyst: WTD

Work Group: WG340701
Blank Sample ID: WG340701-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG340701-05	1LM.LM04819	08/24/10 22:52	01
MCT	WG340701-01	1LM.LM04821	08/24/10 23:45	01
LCS	WG340701-03	1LM.LM04823	08/25/10 00:38	01
LCS2	WG340701-04	1LM.LM04824	08/25/10 01:04	01
47SB-C03(9-11)	L10080608-01	1LM.LM04825	08/25/10 01:31	01
47SB-C05(9-11)	L10080608-02	1LM.LM04826	08/25/10 01:57	01
QCMRL	WG340701-06	1LM.LM04832	08/25/10 04:36	01
QCMRL	WG340701-07	1LM.LM04836	08/25/10 06:21	01

Report Name: BLANK_SUMMARY
PDF File ID: 1760490
Report generated 08/25/2010 13:15

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080608 Prep Date:08/24/10 08:38 Sample ID:WG340701-02
Instrument ID:LCMS1 Run Date:08/25/10 00:12 Prep Method:6850
File ID:1LM.LM04822 Analyst:WTD Method:6850
Workgroup (AAB#):WG340701 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-19-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.995	1.99	0.995	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1760491
25-AUG-2010 13:15

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080608 Analyst:WTD Prep Method:6850
Instrument ID:LCMS1 Matrix:Soil Method:6850
Workgroup (AAB#):WG340701 Units:ug/kg
QC Key:STD Lot #:STD40906

Sample ID:WG340701-03 LCS File ID:1LM.LM04823 Run Date:08/25/2010 00:38
Sample ID:WG340701-04 LCS2 File ID:1LM.LM04824 Run Date:08/25/2010 01:04

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	2.00	2.13	107	1.98	1.89	95.5	11.8	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID:1760492
Report generated: 08/25/2010 13:15

Conductivity Probe Calibration Check: 1420/1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG340701-01 MCT	10,710	NA
-02 Blk	8.0	
-03 LCS	7.2	
-04 LCS2	6.5	
L10080608-01	15.1	
-02	19.2	
L10080609-01	50.6	
-02	13.9	
-03	3.9	
-04	7.2	
-05	12.4	

Analyst

8-24-10/16:22
Date/Time

DCN#84161

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080608

08/27/10 13:43

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-C03(9-11)	L10080608-01	D2216-90	1	24-AUG-10
47SB-C05(9-11)	L10080608-02	D2216-90	1	24-AUG-10

Report Number: L10080608
Report Date : August 27, 2010

Sample Number: L10080608-01
Client ID: 47SB-C03(9-11)
Matrix: Soil
Workgroup Number: WG340704
Collect Date: 08/20/2010 13:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: DIH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/25/2010 08:26
Cal Date:
Run Date: 08/25/2010 08:26
File ID: B1.340704-0109

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	81.5		1.00	1.00

Report Number: L10080608
Report Date : August 27, 2010

Sample Number: L10080608-02
Client ID: 47SB-C05(9-11)
Matrix: Soil
Workgroup Number: WG340704
Collect Date: 08/20/2010 13:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: DIH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/25/2010 08:26
Cal Date:
Run Date: 08/25/2010 08:26
File ID: B1.340704-0110

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	89.6		1.00	1.00

Microbac

Validation Qualifier Data Entry Verification

Run Date: September 30, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47SB-C01(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	86.6	Percent		Y	Y								L10080609-01	08:26
	SW6850	NONE	N	0	1	PERCHLORATE	1.15	ug/kg	U	N	Y		U						L10080609-01	02:24
47SB-C03(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	81.1	Percent		Y	Y								L10080609-02	08:26
	SW6850	NONE	N	0	1	PERCHLORATE	20.7	ug/kg		Y	Y								L10080609-02	02:50
47SB-E01(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	82.4	Percent		Y	Y								L10080609-03	08:26
	SW6850	NONE	N	0	1	PERCHLORATE	1.76	ug/kg	J	Y	Y		J						L10080609-03	03:17
47SB-E03(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	81.6	Percent		Y	Y								L10080609-04	08:26
	SW6850	NONE	N	0	1	PERCHLORATE	1.18	ug/kg	U	N	Y		U						L10080609-04	03:43
47SB-E05(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	85.5	Percent		Y	Y								L10080609-05	08:26
	SW6850	NONE	N	0	1	PERCHLORATE	2.92	ug/kg		Y	Y								L10080609-05	05:29

OK
09/30/10

110806O9

00104985

COC NO. LHAAP47-082010-1

Shaw Environmental & Infrastructure, Inc.
1401 Enclave Parkway, Suite 250
Houston, TX 77077
(281) 531-3100

Lab Name: Environmental Waste Solutions C/O Microbac
Address : 158 Starlite Drive, Marietta OH 45750
Contact : Stephanie Mossburg
Phone: 1-800-373-4071

PM: Praveen Srivastav (281.531.3188) TAT: 24 HR RUSH
Project Contact: Jen Hoang Phone No: 281-531-3108
Project Name: LHAAP Site: SITE 47
Project #: 117591-009A130 Location: Karnack, TX

Sampler Print: Allen Willmore (713.247.9292) Susan Oller (281.989.3544)
Sampler Sign:

Sample Number	Grab	Date	Time	Matrix	# Of Containers	Perchlorate (6850)-28day HT										Comments
47SB-C01(GW/VZ)	X	08/20/2010	11:10	Soil	1	X										(9-10) (13-14)
47SB-C03(GW/VZ)	X	08/20/2010	13:05	Soil	1	X										(9-10)
47SB-C05(GW/VZ)	X	NA	NA	Soil	NA	NA										(9-10)
47SB-E01(GW/VZ)	X	08/20/2010	10:35	Soil	1	X										(8-9)
47SB-E03(GW/VZ)	X	08/20/2010	14:35	Soil	1	X										
47SB-E05(GW/VZ)	X	08/20/2010	15:00	Soil	1	X										

Relinquished By:
Date/Time 8/23/10 17:00

Received By:
Date/Time

Special Instructions
24 HR TAT DUE WEDN. 08/25/2010 BY 9AM

Relinquished By:
Date/Time

Received for Laboratory By:
Date/Time

Remarks:

Microbac OVD
Received: 08/24/2010 09:57
By: BRENDA GREENWALT
221000008401

Brenda Greenwalt

COOLER INSPECTION

Microbac®

Received: 08/24/2010 09:57
Delivery Method: UPS
Opened By: Brenda Greenwalt
Comments:

Login(s): L10080609|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
001-0008	H	4.0	1Z66V7250194845307	LHAAP47-082010-1	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	No	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (less than 6mm)?

Discrepancies:

6 Sample 47SB-C01 has a time of 1110 on the COC an a time of 1105 on sample. Logged per COC.

Sample 47SB-E03 has a time of 1435 on the COC an a time of 1430 on sample. Logged per the sample.

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080609
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 25-AUG-2010

Samplenum	Container ID	Products
L10080609-01	729406	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	24-AUG-2010 12:15	JKT	
2	ANALYZ	W1	SEM	24-AUG-2010 13:52	WTD	RLK
3	ANALYZ	SEM	WET	24-AUG-2010 14:22	DIH	WTD

Samplenum	Container ID	Products
L10080609-02	729407	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	24-AUG-2010 12:15	JKT	
2	ANALYZ	W1	SEM	24-AUG-2010 13:52	WTD	RLK
3	ANALYZ	SEM	WET	24-AUG-2010 14:22	DIH	WTD
4	STORE	WET	W1	25-AUG-2010 08:10	RLK	DIH

Samplenum	Container ID	Products
L10080609-03	729408	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	24-AUG-2010 12:15	JKT	
2	ANALYZ	W1	SEM	24-AUG-2010 13:52	WTD	RLK
3	ANALYZ	SEM	WET	24-AUG-2010 14:22	DIH	WTD
4	STORE	WET	W1	25-AUG-2010 08:10	RLK	DIH

Samplenum	Container ID	Products
L10080609-04	729409	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	24-AUG-2010 12:15	JKT	
2	ANALYZ	W1	SEM	24-AUG-2010 13:52	WTD	RLK
3	ANALYZ	SEM	WET	24-AUG-2010 14:22	DIH	WTD
4	STORE	WET	W1	25-AUG-2010 08:10	RLK	DIH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080609
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 25-AUG-2010

Samplenum	Container ID	Products
L10080609-05	729410	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	24-AUG-2010 12:15	JKT	
2	ANALYZ	W1	SEM	24-AUG-2010 13:52	WTD	RLK
3	ANALYZ	SEM	WET	24-AUG-2010 14:22	DIH	WTD
4	STORE	WET	W1	25-AUG-2010 08:10	RLK	DIH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080609

09/29/10 11:28

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-C01(GW/VZ)	L10080609-01	6850	1	24-AUG-10
47SB-C03(GW/VZ)	L10080609-02	6850	1	24-AUG-10
47SB-E01(GW/VZ)	L10080609-03	6850	1	24-AUG-10
47SB-E03(GW/VZ)	L10080609-04	6850	1	24-AUG-10
47SB-E05(GW/VZ)	L10080609-05	6850	1	24-AUG-10

Report Number: L10080609
Report Date : September 29, 2010

(9.10)

Sample Number: L10080609-01
Client ID: 47SB-C01(GW/VZ)
Matrix: Soil
Workgroup Number: WG340701
Collect Date: 08/20/2010 11:10
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/24/2010 08:38
Cal Date: 08/19/2010 22:52
Run Date: 08/25/2010 02:24
File ID: 1LM.LM04827
Percent Solid: 86.6

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.30	1.15

U Not detected at or above adjusted sample detection limit

Report Number: L10080609
Report Date : September 29, 2010

(13,14)

Sample Number: L10080609-02
Client ID: 47SB-C03(GW/VZ)
Matrix: Soil
Workgroup Number: WG340701
Collect Date: 08/20/2010 13:05
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/24/2010 08:38
Cal Date: 08/19/2010 22:52
Run Date: 08/25/2010 02:50
File ID: 1LM.LM04828
Percent Solid: 81.1

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	20.7		2.43	1.22

9/30/10

Report Number: L10080609
Report Date : September 29, 2010

(9.10)

Sample Number: L10080609-03
Client ID: 47SB-E01(GW/VZ)
Matrix: Soil
Workgroup Number: WG340701
Collect Date: 08/20/2010 10:35
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/24/2010 08:38
Cal Date: 08/19/2010 22:52
Run Date: 08/25/2010 03:17
File ID: 1LM.LM04829
Percent Solid: 82.4

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	1.76	J	2.38	1.19

J

J The analyte was positively identified, but the quantitation was below the RL

00104998

Report Number: L10080609
Report Date : September 29, 2010

(9-10)

Sample Number: L10080609-04
Client ID: 47SB-E03(GW/VZ)
Matrix: Soil
Workgroup Number: WG340701
Collect Date: 08/20/2010 14:35
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/24/2010 08:38
Cal Date: 08/19/2010 22:52
Run Date: 08/25/2010 03:43
File ID: 1LM.LM04830
Percent Solid: 81.6

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.36	1.18

U Not detected at or above adjusted sample detection limit

Microbac

00104999

Report Number: L10080609
Report Date : September 29, 2010

(8-9)

Sample Number: L10080609-05
Client ID: 47SB-E05(GW/VZ)
Matrix: Soil
Workgroup Number: WG340701
Collect Date: 08/20/2010 15:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/24/2010 08:38
Cal Date: 08/19/2010 22:52
Run Date: 08/25/2010 05:29
File ID: 1LM.LM04834
Percent Solid: 85.5

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	2.92		2.26	1.13

9/28/10

Microbac

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080609
Work Group: WG340701
Blank File ID: 1LM.LM04822
Blank Sample ID: WG340701-02
Prep Date: 08/24/10 08:38
Instrument ID: LCMS1
Analyzed Date: 08/25/10 00:12
Method: 6850
Analyst: WTD

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG340701-05	1LM.LM04819	08/24/10 22:52	01
MCT	WG340701-01	1LM.LM04821	08/24/10 23:45	01
LCS	WG340701-03	1LM.LM04823	08/25/10 00:38	01
LCS2	WG340701-04	1LM.LM04824	08/25/10 01:04	01
47SB-C01(GW/VZ)	L10080609-01	1LM.LM04827	08/25/10 02:24	01
47SB-C03(GW/VZ)	L10080609-02	1LM.LM04828	08/25/10 02:50	01
47SB-E01(GW/VZ)	L10080609-03	1LM.LM04829	08/25/10 03:17	01
47SB-E03(GW/VZ)	L10080609-04	1LM.LM04830	08/25/10 03:43	01
QCMRL	WG340701-06	1LM.LM04832	08/25/10 04:36	01
47SB-E05(GW/VZ)	L10080609-05	1LM.LM04834	08/25/10 05:29	01
QCMRL	WG340701-07	1LM.LM04836	08/25/10 06:21	01

Report Name: BLANK_SUMMARY
PDF File ID: 1760502
Report generated 08/25/2010 13:19

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080609 Prep Date:08/24/10 08:38 Sample ID:WG340701-02
Instrument ID:LCMS1 Run Date:08/25/10 00:12 Prep Method:6850
File ID:1LM.LM04822 Analyst:WTD Method:6850
Workgroup (AAB#):WG340701 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-19-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.995	1.99	0.995	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1760503
25-AUG-2010 13:19

Microbac Laboratories Inc.

LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080609 Analyst:WTD Prep Method:6850

Instrument ID:LCMS1 Matrix:Soil Method:6850

Workgroup (AAB#):WG340701 Units:ug/kg

QC Key:STD Lot #:STD40906

Sample ID:WG340701-03 LCS File ID:1LM.LM04823 Run Date:08/25/2010 00:38

Sample ID:WG340701-04 LCS2 File ID:1LM.LM04824 Run Date:08/25/2010 01:04

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	2.00	2.13	107	1.98	1.89	95.5	11.8	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008

PDF File ID:1760504

Report generated: 08/25/2010 13:19

Conductivity Probe Calibration Check: 1420/1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG340701-01 MCT	10,710	NA
-02 Blk	8.0	
-03 LCS	7.2	
-04 LCS2	6.5	
L10080608-01	15.1	
-02	19.2	
L10080609-01	50.6	
-02	13.9	
-03	3.9	
-04	7.2	
-05	12.4	

Analyst

8-24-10/16:22
Date/Time

DCN#84161

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080609

09/29/10 11:28

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-C01(GW/VZ)	L10080609-01	D2216-90	1	24-AUG-10
47SB-C03(GW/VZ)	L10080609-02	D2216-90	1	24-AUG-10
47SB-E01(GW/VZ)	L10080609-03	D2216-90	1	24-AUG-10
47SB-E03(GW/VZ)	L10080609-04	D2216-90	1	24-AUG-10
47SB-E05(GW/VZ)	L10080609-05	D2216-90	1	24-AUG-10

Report Number: L10080609
Report Date : September 29, 2010

Sample Number:	L10080609-01	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	47SB-C01(GW/VZ)	Prep Method:	D2216-90	Prep Date:	08/25/2010 08:26
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG340704	Analyst:	DIH	Run Date:	08/25/2010 08:26
Collect Date:	08/20/2010 11:10	Dilution:	1	File ID:	B1.340704-0111
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	86.6		1.00	1.00

Report Number: L10080609
Report Date : September 29, 2010

Sample Number: L10080609-02
Client ID: 47SB-C03(GW/VZ)
Matrix: Soil
Workgroup Number: WG340704
Collect Date: 08/20/2010 13:05
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: DIH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/25/2010 08:26
Cal Date:
Run Date: 08/25/2010 08:26
File ID: B1.340704-0112

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	81.1		1.00	1.00

Report Number: L10080609
Report Date : September 29, 2010

Sample Number: L10080609-03
Client ID: 47SB-E01(GW/VZ)
Matrix: Soil
Workgroup Number: WG340704
Collect Date: 08/20/2010 10:35
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: DIH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/25/2010 08:26
Cal Date:
Run Date: 08/25/2010 08:26
File ID: B1.340704-0113

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	82.4		1.00	1.00

Report Number: L10080609
Report Date : September 29, 2010

Sample Number: L10080609-04
Client ID: 47SB-E03(GW/VZ)
Matrix: Soil
Workgroup Number: WG340704
Collect Date: 08/20/2010 14:35
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: DIB
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/25/2010 08:26
Cal Date:
Run Date: 08/25/2010 08:26
File ID: B1.340704-0114

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	81.6		1.00	1.00

00105012

Report Number: L10080609
Report Date : September 29, 2010

Sample Number: L10080609-05
Client ID: 47SB-E05(GW/VZ)
Matrix: Soil
Workgroup Number: WG340704
Collect Date: 08/20/2010 15:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: DIH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/25/2010 08:26
Cal Date:
Run Date: 08/25/2010 08:26
File ID: B1.340704-0115

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	85.5		1.00	1.00

Microbac

Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47SB-C01(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	91.0	Percent		Y	Y								L10080654-01	08:26
	SW6850	NONE	N	0	1	PERCHLORATE	39.2	ug/kg		Y	Y								L10080654-01	20:53
47SB-C03(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	88.4	Percent		Y	Y								L10080654-02	08:26
	SW6850	NONE	N	0	1	PERCHLORATE	64.2	ug/kg		Y	Y								L10080654-02	21:19
47SB-C05(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	87.4	Percent		Y	Y								L10080654-03	08:26
	SW6850	NONE	N	0	1	PERCHLORATE	1.12	ug/kg	U	N	Y		U						L10080654-03	09:55
47SB-E01(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	82.6	Percent		Y	Y								L10080654-04	08:26
	SW6850	NONE	N	0	1	PERCHLORATE	1.21	ug/kg	U	N	Y		U						L10080654-04	10:22
47SB-E03(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	86.0	Percent		Y	Y								L10080654-05	08:26
	SW6850	NONE	N	0	1	PERCHLORATE	1.15	ug/kg	U	N	Y		U						L10080654-05	10:48
47SB-E05(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	88.9	Percent		Y	Y								L10080654-06	08:26
	SW6850	NONE	N	0	1	PERCHLORATE	1.11	ug/kg	U	N	Y		U						L10080654-06	23:05

OK
10/7/10

LHA080654

00105014

COC NO. LHAAP47-082010-3

Shaw Environmental & Infrastructure, Inc.
1401 Enclave Parkway, Suite 250
Houston, TX 77077
(281) 531-3100

Lab Name: Environmental Waste Solutions C/O Microbac
Address : 158 Starlite Drive, Marietta OH 45750
Contact : Stephanie Mossburg
Phone: 1-800-373-4071

PM: Praveen Srivastav (281.531.3188) TAT: HOLD
Project Contact: Jen Hoang Phone No: 281-531-3108
Project Name: LHAAP Site: SITE 47
Project #: 117591-009A130 Location: Karnack, TX

Sampler Print:
Allen Willmore
(713.247.9292)
Susan Oller
(281.989.3544)

Sampler Sign:

Sample Number	Grab	Date	Time	Matrix	# Of Containers	Perchlorate (6850)-28day HT										Comments
47SB-C01(4-6)	x	08/20/2010	11:00	Soil	1	X										
47SB-C03(4-6)	x	08/20/2010	12:55	Soil	1	X										
47SB-C05(4-6)	x	08/20/2010	13:25	Soil	1	X										
47SB-E01(4-6)	x	08/20/2010	10:25	Soil	1	X										
47SB-E03(4-6)	x	08/20/2010	14:10	Soil	1	X										
47SB-E05(4-6)	x	08/20/2010	14:55	Soil	1	X										

Relinquished By:
Date/Time 8/23/10 1700

Received By:
Date/Time

Special Instructions
HOLD FOR INTERVALS (GW/VZ) & (9-11) RESULTS

Relinquished By:
Date/Time

Received for Laboratory By:
Date/Time

Remarks:

Microbac OVD
Received: 08/24/2010 09:57
By: BRENDA GREENWALT
221000008412

Brenda Greenwalt



COOLER INSPECTION

Microbac

Received: 08/24/2010 09:57
Delivery Method: UPS
Opened By: Brenda Greenwalt
Comments:

Login(s): L10080654|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
001-0008	H	4.0	1Z66V7250194845307	lhaap47-082010-3	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (less than 6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080654
Account: 2773
Project: 2773.025
Samples: 6
Due Date: 26-AUG-2010

Samplenum	Container ID	Products
L10080654-01	730281	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	hold	25-AUG-2010 12:27	RLK	

Samplenum	Container ID	Products
L10080654-01	730298	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 13:15	RLK	
2	ANALYZ	W1	WET	25-AUG-2010 13:23	JDH	RLK
3	ANALYZ	WET	SEM	25-AUG-2010 13:49	WTD	WTD
4	STORE	SEM	A1	25-AUG-2010 14:36	RLK	WTD

Samplenum	Container ID	Products
L10080654-02	730282	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	hold	25-AUG-2010 12:27	RLK	

Samplenum	Container ID	Products
L10080654-02	730299	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 13:15	RLK	
2	ANALYZ	W1	WET	25-AUG-2010 13:23	JDH	RLK
3	STORE	SEM	A1	25-AUG-2010 14:36	RLK	WTD

Samplenum	Container ID	Products
L10080654-03	730283	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	hold	25-AUG-2010 12:27	RLK	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080654
Account: 2773
Project: 2773.025
Samples: 6
Due Date: 26-AUG-2010

Samplenum	Container ID	Products
L10080654-03	730300	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 13:15	RLK	
2	ANALYZ	W1	WET	25-AUG-2010 13:23	JDH	RLK
3	ANALYZ	WET	SEM	25-AUG-2010 13:49	WTD	WTD
4	STORE	SEM	A1	25-AUG-2010 14:36	RLK	WTD

Samplenum	Container ID	Products
L10080654-04	730284	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	hold	25-AUG-2010 12:27	RLK	

Samplenum	Container ID	Products
L10080654-04	730301	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 13:15	RLK	
2	ANALYZ	W1	WET	25-AUG-2010 13:23	JDH	RLK
3	ANALYZ	WET	SEM	25-AUG-2010 13:49	WTD	WTD
4	STORE	SEM	A1	25-AUG-2010 14:36	RLK	WTD

Samplenum	Container ID	Products
L10080654-05	730285	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	hold	25-AUG-2010 12:27	RLK	

Samplenum	Container ID	Products
L10080654-05	730302	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 13:15	RLK	
2	ANALYZ	W1	WET	25-AUG-2010 13:23	JDH	RLK
3	ANALYZ	WET	SEM	25-AUG-2010 13:49	WTD	WTD
4	STORE	SEM	A1	25-AUG-2010 14:36	RLK	WTD

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080654
Account: 2773
Project: 2773.025
Samples: 6
Due Date: 26-AUG-2010

Samplenum	Container ID	Products
L10080654-06	730286	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	hold	25-AUG-2010 12:27	RLK	

Samplenum	Container ID	Products
L10080654-06	730303	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 13:15	RLK	
2	ANALYZ	W1	WET	25-AUG-2010 13:22	JDH	RLK
3	ANALYZ	WET	SEM	25-AUG-2010 13:50	WTD	WTD
4	STORE	SEM	A1	25-AUG-2010 14:36	RLK	WTD

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080654

08/30/10 15:47

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-C01(4-6)	L10080654-01	6850	1	24-AUG-10
47SB-C03(4-6)	L10080654-02	6850	1	24-AUG-10
47SB-C05(4-6)	L10080654-03	6850	1	24-AUG-10
47SB-E01(4-6)	L10080654-04	6850	1	24-AUG-10
47SB-E03(4-6)	L10080654-05	6850	1	24-AUG-10
47SB-E05(4-6)	L10080654-06	6850	1	24-AUG-10

Report Number: L10080654
Report Date : August 30, 2010

Sample Number: L10080654-01
Client ID: 47SB-C01(4-6)
Matrix: Soil
Workgroup Number: WG340825
Collect Date: 08/20/2010 11:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/25/2010 11:36
Cal Date: 08/19/2010 22:52
Run Date: 08/25/2010 20:53
File ID: 1LM.LM04859
Percent Solid: 91.0

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	39.2		2.16	1.08

Report Number: L10080654
Report Date : August 30, 2010

Sample Number: L10080654-02
Client ID: 47SB-C03(4-6)
Matrix: Soil
Workgroup Number: WG340825
Collect Date: 08/20/2010 12:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/25/2010 11:36
Cal Date: 08/19/2010 22:52
Run Date: 08/25/2010 21:19
File ID: 1LM.LM04860
Percent Solid: 88.4

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	64.2		2.25	1.13

Report Number: L10080654
Report Date : August 30, 2010

Sample Number: L10080654-03
Client ID: 47SB-C05(4-6)
Matrix: Soil
Workgroup Number: WG340825
Collect Date: 08/20/2010 13:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/25/2010 11:36
Cal Date: 08/19/2010 22:52
Run Date: 08/26/2010 09:55
File ID: 1LM.LM04874
Percent Solid: 87.4

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.23	1.12

U Not detected at or above adjusted sample detection limit

Report Number: L10080654
Report Date : August 30, 2010

Sample Number: L10080654-04
Client ID: 47SB-E01(4-6)
Matrix: Soil
Workgroup Number: WG340825
Collect Date: 08/20/2010 10:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/25/2010 11:36
Cal Date: 08/19/2010 22:52
Run Date: 08/26/2010 10:22
File ID: 1LM.LM04875
Percent Solid: 82.6

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.42	1.21

U Not detected at or above adjusted sample detection limit

Microbac

Report Number: L10080654
Report Date : August 30, 2010

Sample Number: L10080654-05
Client ID: 47SB-E03(4-6)
Matrix: Soil
Workgroup Number: WG340825
Collect Date: 08/20/2010 14:10
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/25/2010 11:36
Cal Date: 08/19/2010 22:52
Run Date: 08/26/2010 10:48
File ID: 1LM.LM04876
Percent Solid: 86.0

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.29	1.15

U Not detected at or above adjusted sample detection limit

Report Number: L10080654
Report Date : August 30, 2010

Sample Number: L10080654-06
Client ID: 47SB-E05(4-6)
Matrix: Soil
Workgroup Number: WG340825
Collect Date: 08/20/2010 14:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/25/2010 11:36
Cal Date: 08/19/2010 22:52
Run Date: 08/25/2010 23:05
File ID: 1LM.LM04864
Percent Solid: 88.9

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.23	1.11

U Not detected at or above adjusted sample detection limit

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080654
Blank File ID: 1LM.LM04852
Prep Date: 08/25/10 11:36
Analyzed Date: 08/25/10 17:48
Analyst: WTD

Work Group: WG340825
Blank Sample ID: WG340825-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG340825-05	1LM.LM04849	08/25/10 16:28	01
MCT	WG340825-01	1LM.LM04851	08/25/10 17:21	01
LCS	WG340825-03	1LM.LM04853	08/25/10 18:14	01
LCS2	WG340825-04	1LM.LM04854	08/25/10 18:40	01
47SB-C01(4-6)	L10080654-01	1LM.LM04859	08/25/10 20:53	01
47SB-C03(4-6)	L10080654-02	1LM.LM04860	08/25/10 21:19	01
QCMRL	WG340825-06	1LM.LM04862	08/25/10 22:12	01
47SB-E05(4-6)	L10080654-06	1LM.LM04864	08/25/10 23:05	01
QCMRL	WG340825-07	1LM.LM04869	08/26/10 01:18	01
QCMRL	WG340825-08	1LM.LM04873	08/26/10 09:29	01
47SB-C05(4-6)	L10080654-03	1LM.LM04874	08/26/10 09:55	01
47SB-E01(4-6)	L10080654-04	1LM.LM04875	08/26/10 10:22	01
47SB-E03(4-6)	L10080654-05	1LM.LM04876	08/26/10 10:48	01
QCMRL	WG340825-09	1LM.LM04880	08/26/10 12:34	01

Report Name: BLANK_SUMMARY
PDF File ID: 1761931
Report generated 08/27/2010 08:19

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080654 Prep Date:08/25/10 11:36 Sample ID:WG340825-02

Instrument ID:LCMS1 Run Date:08/25/10 17:48 Prep Method:6850

File ID:1LM.LM04852 Analyst:WTD Method:6850

Workgroup (AAB#):WG340825 Matrix:Soil Units:ug/kg

Contract #:DACA56-94-D-0020 Cal ID: LCMS1-19-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.985	1.97	0.985	1	U

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name:BLANK

PDF ID: 1761932

27-AUG-2010 08:19

Microbac Laboratories Inc.

LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080654 Analyst: WTD Prep Method: 6850

Instrument ID: LCMS1 Matrix: Soil Method: 6850

Workgroup (AAB#): WG340825 Units: ug/kg

QC Key: STD Lot #: STD40906

Sample ID: WG340825-03 LCS File ID: 1LM.LM04853 Run Date: 08/25/2010 18:14

Sample ID: WG340825-04 LCS2 File ID: 1LM.LM04854 Run Date: 08/25/2010 18:40

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	2.01	1.89	94.0	2.01	1.85	92.0	2.43	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008

PDF File ID: 1761933

Report generated: 08/27/2010 08:19

Microbac

Conductivity Probe Calibration Check:
1405 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level:
10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG340825-01 MCT	10,570	NA
-02 BLK	8.4	
-03 LCS	8.9	
-04 LCS2	8.9	
L10080403-01	16.9	
-02	24.4	
-04	20.3	
-05	4.3	
L10080654-01	5.6	
-02	92.3	
-03	26.5	
-04	6.8	
-05	3.3	
-06	12.6	

Analyst

8-25-10 / 16:05
Date/Time

DCN#84175

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080654

08/30/10 15:47

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-C01(4-6)	L10080654-01	D2216-90	1	24-AUG-10
47SB-C03(4-6)	L10080654-02	D2216-90	1	24-AUG-10
47SB-C05(4-6)	L10080654-03	D2216-90	1	24-AUG-10
47SB-E01(4-6)	L10080654-04	D2216-90	1	24-AUG-10
47SB-E03(4-6)	L10080654-05	D2216-90	1	24-AUG-10
47SB-E05(4-6)	L10080654-06	D2216-90	1	24-AUG-10

Report Number: L10080654
Report Date : August 30, 2010

Sample Number: L10080654-01
Client ID: 47SB-C01(4-6)
Matrix: Soil
Workgroup Number: WG340836
Collect Date: 08/20/2010 11:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/26/2010 08:26
Cal Date:
Run Date: 08/26/2010 08:26
File ID: B1.340836-0118

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	91.0		1.00	1.00

Report Number: L10080654
Report Date : August 30, 2010

Sample Number: L10080654-02
Client ID: 47SB-C03(4-6)
Matrix: Soil
Workgroup Number: WG340836
Collect Date: 08/20/2010 12:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/26/2010 08:26
Cal Date:
Run Date: 08/26/2010 08:26
File ID: B1.340836-0119

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	88.4		1.00	1.00

Report Number: L10080654
Report Date : August 30, 2010

Sample Number: L10080654-03
Client ID: 47SB-C05(4-6)
Matrix: Soil
Workgroup Number: WG340836
Collect Date: 08/20/2010 13:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/26/2010 08:26
Cal Date:
Run Date: 08/26/2010 08:26
File ID: B1.340836-0120

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	87.4		1.00	1.00

00105042

Report Number: L10080654
Report Date : August 30, 2010

Sample Number: L10080654-04
Client ID: 47SB-E01(4-6)
Matrix: Soil
Workgroup Number: WG340836
Collect Date: 08/20/2010 10:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/26/2010 08:26
Cal Date:
Run Date: 08/26/2010 08:26
File ID: B1.340836-0121

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	82.6		1.00	1.00

Microbac

Report Number: L10080654
Report Date : August 30, 2010

Sample Number: L10080654-05
Client ID: 47SB-E03(4-6)
Matrix: Soil
Workgroup Number: WG340836
Collect Date: 08/20/2010 14:10
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/26/2010 08:26
Cal Date:
Run Date: 08/26/2010 08:26
File ID: B1.340836-0122

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	86.0		1.00	1.00

Report Number: L10080654
Report Date : August 30, 2010

Sample Number: L10080654-06
Client ID: 47SB-E05(4-6)
Matrix: Soil
Workgroup Number: WG340836
Collect Date: 08/20/2010 14:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/26/2010 08:26
Cal Date:
Run Date: 08/26/2010 08:26
File ID: B1.340836-0123

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	88.9		1.00	1.00

00105045

Validation Qualifier Data Entry Verification

Run Date: September 15, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47SB-C01(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	87.4	Percent		Y	Y								L10080655-01	08:47
	SW6850	NONE	N	0	1	PERCHLORATE	1.12	ug/kg	U	N	Y		U						L10080655-01	11:51
47SB-C03(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	93.8	Percent		Y	Y								L10080655-02	08:47
	SW6850	NONE	N	0	1	PERCHLORATE	18.4	ug/kg		Y	Y								L10080655-02	12:17
47SB-C05(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	94.6	Percent		Y	Y								L10080655-03	08:47
	SW6850	NONE	N	0	1	PERCHLORATE	1.05	ug/kg	U	N	Y		U						L10080655-03	12:44
47SB-E01(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	91.4	Percent		Y	Y								L10080655-04	08:47
	SW6850	NONE	N	0	1	PERCHLORATE	7.20	ug/kg		Y	Y								L10080655-04	13:13
47SB-E03(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	88.7	Percent		Y	Y								L10080655-05	08:47
	SW6850	NONE	N	0	1	PERCHLORATE	1.09	ug/kg	U	N	Y		U						L10080655-05	13:40
47SB-E05(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	90.3	Percent		Y	Y								L10080655-08	08:47
	SW6850	NONE	N	0	1	PERCHLORATE	1.08	ug/kg	U	N	Y		U						L10080655-08	16:18
DUP-02-100820	D2216	NONE	N	0	1	PERCENT SOLIDS	85.3	Percent		Y	Y								L10080655-09	08:47
	SW6850	NONE	N	0	1	PERCHLORATE	1.17	ug/kg	U	N	Y		U						L10080655-09	16:45
DUP-03-100820	D2216	NONE	N	0	1	PERCENT SOLIDS	93.2	Percent		Y	Y								L10080655-10	08:47
	SW6850	NONE	N	0	1	PERCHLORATE	1.07	ug/kg	U	N	Y		U						L10080655-10	17:11
DUP-04-100820	D2216	NONE	N	0	1	PERCENT SOLIDS	94.4	Percent		Y	Y								L10080655-11	08:47
	SW6850	NONE	N	0	1	PERCHLORATE	1.07	ug/kg	J	Y	Y		J						L10080655-11	17:37

LHAAP-47
R (0820)
dr
09/15/10

LHAAP-47 L100806500105046

COC NO. LHAAP47-082010-4

Shaw Environmental & Infrastructure, Inc.
1401 Enclave Parkway, Suite 250
Houston, TX 77077
(281) 531-3100

Lab Name: Environmental Waste Solutions C/O Microbac
Address : 158 Starlite Drive, Marietta OH 45750
Contact : Stephanie Mossburg
Phone: 1-800-373-4071

PM: Praveen Srivastav (281.531.3188) TAT: HOLD
Project Contact: Jen Hoang Phone No: 281-531-3108
Project Name: LHAAP Site: SITE 47
Project #: 117591-009A130 Location: Karnack, TX

Sampler Print: Allen Willmore (713.247.9292) Susan Oller (281.989.3544)
Sampler Sign:

Sample Number	Grab	Date	Time	Matrix	# Of Containers	Perchlorate (6850)-28day HT	Comments
47SB-C01(0-2)	x	08/20/2010	10:55	Soil	1	X	
47SB-C03(0-2)	x	08/20/2010	12:50	Soil	1	X	
47SB-C05(0-2)	x	08/20/2010	13:20	Soil	1	X	
47SB-E01(0-2)	x	08/20/2010	10:20	Soil	1	X	
47SB-E03(0-2)	x	08/20/2010	14:05	Soil	1	X	MS/MSD
47SB-E05(0-2)	x	08/20/2010	14:50	Soil	1	X	
DUP-02	x	NR	NR	Soil	1	X	
DUP-03	x	NR	NR	Soil	1	X	
DUP-04	x	NR	NR	Soil	1	X	

Relinquished By: M. Willmore Date/Time 8/23/10 1600 Received By: Date/Time

Special Instructions
HOLD FOR INTERVAL (4-6) RESULTS

Relinquished By: Date/Time Received for Laboratory By: Date/Time

Remarks: NR - Not Recorded, but recorded in logbook.

Microbac OVD 221000009413
Received: 08/24/2010 09:57
By: BRENDA GREENWALT
Brenda Greenwalt

00105047

1000008413

COOLER INSPECTION

Microbac

Received: 08/24/2010 09:57
Delivery Method: UPS
Opened By: Brenda Greenwalt
Comments:

Login(s): L10080655|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
001-0008	H	4.0	1Z66V7250194845307	lhaap47-082010-4	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	No	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (less than 6mm)?

Discrepancies:

6 Received MS, MSD for sample 47SB-E03(0-2) that is not on the COC. Logged with the RS. Log the MS/MSD per the bottle and log on "hold"

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080655
Account: 2773
Project: 2773.025
Samples: 11
Due Date: 27-AUG-2010

Samplenum	Container ID	Products
L10080655-01	730287	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 12:40	RLK	
2	ANALYZ	W1	WET	26-AUG-2010 16:47	JDH	JKT

Comments:Products cancelled.

Samplenum	Container ID	Products
L10080655-01	731377	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 08:01	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 08:18	WTD	JKT
3	ANALYZ	SEM	A1	27-AUG-2010 12:25	JKT	WTD

Samplenum	Container ID	Products
L10080655-02	730288	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 12:40	RLK	
2	ANALYZ	W1	WET	26-AUG-2010 16:47	JDH	JKT

Comments:Products cancelled.

3	STORE	WET	W1	26-AUG-2010 16:58	JKT	JDH

Comments:Products cancelled.

Samplenum	Container ID	Products
L10080655-02	731378	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 08:01	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 08:18	WTD	JKT
3	ANALYZ	SEM	A1	27-AUG-2010 12:25	JKT	WTD

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080655
Account: 2773
Project: 2773.025
Samples: 11
Due Date: 27-AUG-2010

Samplenum	Container ID	Products
L10080655-03	730289	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 12:40	RLK	
2	ANALYZ	W1	WET	26-AUG-2010 16:47	JDH	JKT
Comments:Products cancelled.						
3	STORE	WET	W1	26-AUG-2010 16:58	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080655-03	731379	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 08:01	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 08:18	WTD	JKT
3	ANALYZ	SEM	A1	27-AUG-2010 12:25	JKT	WTD

Samplenum	Container ID	Products
L10080655-04	730290	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 12:40	RLK	
2	ANALYZ	W1	WET	26-AUG-2010 16:47	JDH	JKT
Comments:Products cancelled.						
3	STORE	WET	W1	26-AUG-2010 16:58	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080655-04	731380	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 08:01	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 08:18	WTD	JKT
3	ANALYZ	SEM	A1	27-AUG-2010 12:25	JKT	WTD

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080655
Account: 2773
Project: 2773.025
Samples: 11
Due Date: 27-AUG-2010

Samplenum	Container ID	Products
L10080655-05	730291	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 12:40	RLK	
2	ANALYZ	W1	WET	26-AUG-2010 16:47	JDH	JKT
Comments:Products cancelled.						
3	STORE	WET	W1	26-AUG-2010 16:58	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080655-05	731381	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 08:01	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 08:19	WTD	JKT
3	ANALYZ	SEM	A1	27-AUG-2010 12:25	JKT	WTD

Samplenum	Container ID	Products
L10080655-06	730292	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 12:40	RLK	
2	ANALYZ	W1	WET	26-AUG-2010 16:47	JDH	JKT
Comments:Products cancelled.						
3	STORE	WET	W1	26-AUG-2010 16:58	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080655-06	731382	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 08:01	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 08:19	WTD	JKT
3	ANALYZ	SEM	A1	27-AUG-2010 12:25	JKT	WTD

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080655
Account: 2773
Project: 2773.025
Samples: 11
Due Date: 27-AUG-2010

Samplenum	Container ID	Products
L10080655-07	730293	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 12:40	RLK	
2	ANALYZ	W1	WET	26-AUG-2010 16:47	JDH	JKT
Comments:Products cancelled.						
3	STORE	WET	W1	26-AUG-2010 16:59	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080655-07	731383	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 08:01	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 08:19	WTD	JKT
3	ANALYZ	SEM	A1	27-AUG-2010 12:25	JKT	WTD

Samplenum	Container ID	Products
L10080655-08	730294	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 12:40	RLK	
2	ANALYZ	W1	WET	26-AUG-2010 16:47	JDH	JKT
Comments:Products cancelled.						
3	STORE	WET	W1	26-AUG-2010 16:59	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080655-08	731384	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 08:01	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 08:19	WTD	JKT
3	ANALYZ	SEM	A1	27-AUG-2010 12:25	JKT	WTD

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080655
Account: 2773
Project: 2773.025
Samples: 11
Due Date: 27-AUG-2010

Samplenum	Container ID	Products
L10080655-09	730295	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 12:40	RLK	
2	ANALYZ	W1	WET	26-AUG-2010 16:47	JDH	JKT
Comments:Products cancelled.						
3	STORE	WET	W1	26-AUG-2010 16:59	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080655-09	731385	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 08:01	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 08:19	WTD	JKT
3	ANALYZ	SEM	A1	27-AUG-2010 12:25	JKT	WTD

Samplenum	Container ID	Products
L10080655-10	730296	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 12:40	RLK	
2	ANALYZ	W1	WET	26-AUG-2010 16:47	JDH	JKT
Comments:Products cancelled.						
3	STORE	WET	W1	26-AUG-2010 16:59	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080655-10	731386	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 08:01	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 08:19	WTD	JKT
3	ANALYZ	SEM	A1	27-AUG-2010 12:25	JKT	WTD

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080655
Account: 2773
Project: 2773.025
Samples: 11
Due Date: 27-AUG-2010

Samplenum	Container ID	Products
L10080655-11	730297	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	25-AUG-2010 12:40	RLK	
2	ANALYZ	W1	WET	26-AUG-2010 16:47	JDH	JKT
Comments:Products cancelled.						
3	STORE	WET	W1	26-AUG-2010 16:59	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080655-11	731387	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 08:01	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 08:19	WTD	JKT
3	ANALYZ	SEM	A1	27-AUG-2010 12:25	JKT	WTD

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080655

09/03/10 13:18

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-C01(0-2)	L10080655-01	6850	1	24-AUG-10
47SB-C03(0-2)	L10080655-02	6850	1	24-AUG-10
47SB-C05(0-2)	L10080655-03	6850	1	24-AUG-10
47SB-E01(0-2)	L10080655-04	6850	1	24-AUG-10
47SB-E03(0-2)	L10080655-05	6850	1	24-AUG-10
47SB-E03(0-2)-MS	L10080655-06	6850	1	24-AUG-10
47SB-E03(0-2)-MSD	L10080655-07	6850	1	24-AUG-10
47SB-E05(0-2)	L10080655-08	6850	1	24-AUG-10
DUP-02	L10080655-09	6850	1	24-AUG-10
DUP-03	L10080655-10	6850	1	24-AUG-10
DUP-04	L10080655-11	6850	1	24-AUG-10

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-01
Client ID: 47SB-C01(0-2)
Matrix: Soil
Workgroup Number: WG341032
Collect Date: 08/20/2010 10:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/27/2010 09:01
Cal Date: 08/26/2010 21:10
Run Date: 08/27/2010 11:51
File ID: 1LM.LM04906
Percent Solid: 87.4

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.25	1.12

U Not detected at or above adjusted sample detection limit

0907 10

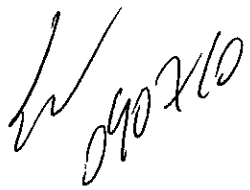
Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-02
Client ID: 47SB-C03(0-2)
Matrix: Soil
Workgroup Number: WG341032
Collect Date: 08/20/2010 12:50
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/27/2010 09:01
Cal Date: 08/26/2010 21:10
Run Date: 08/27/2010 12:17
File ID: 1LM.LM04907
Percent Solid: 93.8

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	18.4		2.12	1.06



Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-03
Client ID: 47SB-C05(0-2)
Matrix: Soil
Workgroup Number: WG341032
Collect Date: 08/20/2010 13:20
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/27/2010 09:01
Cal Date: 08/26/2010 21:10
Run Date: 08/27/2010 12:44
File ID: 1LM.LM04908
Percent Solid: 94.6

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.11	1.05

U Not detected at or above adjusted sample detection limit

9/3/10

Report Number: L10080655
Report Date : September 3, 2010

Sample Number:	L10080655-04	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47SB-E01(0-2)	Prep Method:	6850	Prep Date:	08/27/2010 09:01
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/26/2010 21:10
Workgroup Number:	WG341032	Analyst:	WTD	Run Date:	08/27/2010 13:13
Collect Date:	08/20/2010 10:20	Dilution:	1	File ID:	1LM.LM04909
Sample Tag:	01	Units:	ug/kg	Percent Solid:	91.4

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	7.20		2.19	1.09

9/07/10

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-05
Client ID: 47SB-E03(0-2)
Matrix: Soil
Workgroup Number: WG341032
Collect Date: 08/20/2010 14:05
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/27/2010 09:01
Cal Date: 08/26/2010 21:10
Run Date: 08/27/2010 13:40
File ID: 1LM.LM04910
Percent Solid: 88.7

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.18	1.09

U Not detected at or above adjusted sample detection limit

9/07/10

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-06
Client ID: 47SB-E03(0-2)-MS
Matrix: Soil
Workgroup Number: WG341032
Collect Date: 08/20/2010 14:05
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/27/2010 09:01
Cal Date: 08/26/2010 21:10
Run Date: 08/27/2010 14:06
File ID: 1LM.LM04911
Percent Solid: 88.7

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	3.34		2.24	1.12

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-07
Client ID: 47SB-E03(0-2)-MSD
Matrix: Soil
Workgroup Number: WG341032
Collect Date: 08/20/2010 14:05
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/27/2010 09:01
Cal Date: 08/26/2010 21:10
Run Date: 08/27/2010 14:33
File ID: 1LM.LM04912
Percent Solid: 88.7

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	23.9		2.23	1.12

9/7/10

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-08
Client ID: 47SB-E05(0-2)
Matrix: Soil
Workgroup Number: WG341032
Collect Date: 08/20/2010 14:50
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/27/2010 09:01
Cal Date: 08/26/2010 21:10
Run Date: 08/27/2010 16:18
File ID: 1LM.LM04916
Percent Solid: 90.3

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.17	1.08

U Not detected at or above adjusted sample detection limit

9/07/10

Microbac Laboratories Inc.

Report Number: L10080655
Report Date : September 3, 2010

Sample Number:	L10080655-09	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	DUP-02	Prep Method:	6850	Prep Date:	08/27/2010 09:01
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/26/2010 21:10
Workgroup Number:	WG341032	Analyst:	WTD	Run Date:	08/27/2010 16:45
Collect Date:	08/20/2010 00:01	Dilution:	1	File ID:	1LM.LM04917
Sample Tag:	01	Units:	ug/kg	Percent Solid:	85.3

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.33	1.17

U Not detected at or above adjusted sample detection limit

495B-C01 (0-2)

09/07/10

Microbac

00105069

Report Number: L10080655
Report Date : September 3, 2010

Sample Number:	L10080655-10	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	DUP-03	Prep Method:	6850	Prep Date:	08/27/2010 09:01
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/26/2010 21:10
Workgroup Number:	WG341032	Analyst:	WTD	Run Date:	08/27/2010 17:11
Collect Date:	08/20/2010 00:01	Dilution:	1	File ID:	1LM.LM04918
Sample Tag:	01	Units:	ug/kg	Percent Solid:	93.2

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.13	1.07

U Not detected at or above adjusted sample detection limit

475B - C05 (0-2)

00105070

Report Number: L10080655
Report Date : September 3, 2010

Sample Number:	L10080655-11	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	DUP-04	Prep Method:	6850	Prep Date:	08/27/2010 09:01
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/26/2010 21:10
Workgroup Number:	WG341032	Analyst:	WTD	Run Date:	08/27/2010 17:37
Collect Date:	08/20/2010 00:01	Dilution:	1	File ID:	1LM.LM04919
Sample Tag:	01	Units:	ug/kg	Percent Solid:	94.4

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	1.07	J	2.08	1.04

J

J The analyte was positively identified, but the quantitation was below the RL

475B-E04 (D-2)

Microbac

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080655
Blank File ID: 1LM.LM04904
Prep Date: 08/27/10 09:01
Analyzed Date: 08/27/10 10:58
Analyst: WTD

Work Group: WG341032
Blank Sample ID: WG341032-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG341032-07	1LM.LM04902	08/27/10 09:54	01
MCT	WG341032-01	1LM.LM04903	08/27/10 10:32	01
LCS	WG341032-03	1LM.LM04905	08/27/10 11:24	01
47SB-C01(0-2)	L10080655-01	1LM.LM04906	08/27/10 11:51	01
47SB-C03(0-2)	L10080655-02	1LM.LM04907	08/27/10 12:17	01
47SB-C05(0-2)	L10080655-03	1LM.LM04908	08/27/10 12:44	01
47SB-E01(0-2)	L10080655-04	1LM.LM04909	08/27/10 13:13	01
47SB-E03(0-2)	L10080655-05	1LM.LM04910	08/27/10 13:40	01
47SB-E03(0-2)-MS	L10080655-06	1LM.LM04911	08/27/10 14:06	01
47SB-E03(0-2)-MSD	L10080655-07	1LM.LM04912	08/27/10 14:33	01
QCMRL	WG341032-08	1LM.LM04914	08/27/10 15:25	01
47SB-E05(0-2)	L10080655-08	1LM.LM04916	08/27/10 16:18	01
DUP-02	L10080655-09	1LM.LM04917	08/27/10 16:45	01
DUP-03	L10080655-10	1LM.LM04918	08/27/10 17:11	01
DUP-04	L10080655-11	1LM.LM04919	08/27/10 17:37	01
QCMRL	WG341032-09	1LM.LM04921	08/27/10 18:30	01

Report Name: BLANK_SUMMARY
PDF File ID: 1765073
Report generated 08/30/2010 11:39

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080655 Prep Date:08/27/10 09:01 Sample ID:WG341032-02
Instrument ID:LCMS1 Run Date:08/27/10 10:58 Prep Method:6850
File ID:1LM.LM04904 Analyst:WTD Method:6850
Workgroup (AAB#):WG341032 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-26-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.993	1.99	0.993	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1765074
30-AUG-2010 11:39

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080655 Run Date:08/27/2010 Sample ID:WG341032-03
Instrument ID:LCMS1 Run Time:11:24 Prep Method:6850
File ID:1LM.LM04905 Analyst:WTD Method:6850
Workgroup (AAB#):WG341032 Matrix:Soil Units:ug/kg
QC Key:STD Lot#:STD40906 Cal ID: LCMS1-26-AUG-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Perchlorate	1.98	1.89	95.5	80 - 120	

LCS - Modified 03/06/2008
PDF File ID:1765075
Report generated: 08/30/2010 11:39

Conductivity Probe Calibration Check:
141 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level:
10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG341032-01 MCT	10,190	NA
-02 BLK	7.7	
-03 LCS	7.8	
L10080655-01	35.4	
-02	4.3	
-03	3.2	
-04	14.1	
-05	17.9	
-06	16.6	
-07	30.6	
-08	29.2	
-09	27.6	
-10	3.4	
-11	15.5	

Wade T.
Analyst

8-27-10/16:10
Date/Time

DCN#84208

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L10080655 Cal ID:LCMS1- 26-AUG-10 Worknum:WG341032

Instrument ID:LCMS1 Contract #:DACA56-94-D-0020 Prep Method:6850

Parent ID:L10080655-05 File ID:1LM.LM04910 Dil:1 Method:6850

Sample ID:L10080655-06 MS File ID:1LM.LM04911 Dil:1 Matrix:Soil

Sample ID:L10080655-07 MSD File ID:1LM.LM04912 Dil:1 Units:ug/kg

Percent Solid:88.7

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Perchlorate	U	2.24	3.34	149	2.23	23.9	1070	151	80 - 120	15	*#

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

Samples ND
no quals

MS_MSD - Modified 03/06/2008
PDF File ID: 1765076
Report generated 08/30/2010 11:39

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080655

09/03/10 13:18

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-C01(0-2)	L10080655-01	D2216-90	1	24-AUG-10
47SB-C03(0-2)	L10080655-02	D2216-90	1	24-AUG-10
47SB-C05(0-2)	L10080655-03	D2216-90	1	24-AUG-10
47SB-E01(0-2)	L10080655-04	D2216-90	1	24-AUG-10
47SB-E03(0-2)	L10080655-05	D2216-90	1	24-AUG-10
47SB-E03(0-2)-MS	L10080655-06	D2216-90	1	24-AUG-10
47SB-E03(0-2)-MSD	L10080655-07	D2216-90	1	24-AUG-10
47SB-E05(0-2)	L10080655-08	D2216-90	1	24-AUG-10
DUP-02	L10080655-09	D2216-90	1	24-AUG-10
DUP-03	L10080655-10	D2216-90	1	24-AUG-10
DUP-04	L10080655-11	D2216-90	1	24-AUG-10

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-01
Client ID: 47SB-C01(0-2)
Matrix: Soil
Workgroup Number: WG340997
Collect Date: 08/20/2010 10:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/27/2010 08:47
Cal Date:
Run Date: 08/27/2010 08:47
File ID: B1.340997-0105

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	87.4		1.00	1.00

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-02
Client ID: 47SB-C03(0-2)
Matrix: Soil
Workgroup Number: WG340997
Collect Date: 08/20/2010 12:50
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/27/2010 08:47
Cal Date:
Run Date: 08/27/2010 08:47
File ID: B1.340997-0106

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	93.8		1.00	1.00

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-03
Client ID: 47SB-C05(0-2)
Matrix: Soil
Workgroup Number: WG340997
Collect Date: 08/20/2010 13:20
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/27/2010 08:47
Cal Date:
Run Date: 08/27/2010 08:47
File ID: B1.340997-0107

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	94.6		1.00	1.00

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-04
Client ID: 47SB-E01(0-2)
Matrix: Soil
Workgroup Number: WG340997
Collect Date: 08/20/2010 10:20
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/27/2010 08:47
Cal Date:
Run Date: 08/27/2010 08:47
File ID: B1.340997-0108

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	91.4		1.00	1.00

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-05
Client ID: 47SB-E03(0-2)
Matrix: Soil
Workgroup Number: WG340997
Collect Date: 08/20/2010 14:05
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/27/2010 08:47
Cal Date:
Run Date: 08/27/2010 08:47
File ID: B1.340997-0109

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	88.7		1.00	1.00

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-06
Client ID: 47SB-E03(0-2)-MS
Matrix: Soil
Workgroup Number: WG340997
Collect Date: 08/20/2010 14:05
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/27/2010 08:47
Cal Date:
Run Date: 08/27/2010 08:47
File ID: B1.340997-0110

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	88.7		1.00	1.00

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-07
Client ID: 47SB-E03(0-2)-MSD
Matrix: Soil
Workgroup Number: WG340997
Collect Date: 08/20/2010 14:05
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/27/2010 08:47
Cal Date:
Run Date: 08/27/2010 08:47
File ID: B1.340997-0111

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	88.7		1.00	1.00

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-08
Client ID: 47SB-E05(0-2)
Matrix: Soil
Workgroup Number: WG340997
Collect Date: 08/20/2010 14:50
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/27/2010 08:47
Cal Date:
Run Date: 08/27/2010 08:47
File ID: B1.340997-0112

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	90.3		1.00	1.00

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-09
Client ID: DUP-02
Matrix: Soil
Workgroup Number: WG340997
Collect Date: 08/20/2010 00:01
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/27/2010 08:47
Cal Date:
Run Date: 08/27/2010 08:47
File ID: B1.340997-0113

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	85.3		1.00	1.00

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-10
Client ID: DUP-03
Matrix: Soil
Workgroup Number: WG340997
Collect Date: 08/20/2010 00:01
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/27/2010 08:47
Cal Date:
Run Date: 08/27/2010 08:47
File ID: B1.340997-0114

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	93.2		1.00	1.00

Report Number: L10080655
Report Date : September 3, 2010

Sample Number: L10080655-11
Client ID: DUP-04
Matrix: Soil
Workgroup Number: WG340997
Collect Date: 08/20/2010 00:01
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/27/2010 08:47
Cal Date:
Run Date: 08/27/2010 08:47
File ID: B1.340997-0115

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	94.4		1.00	1.00

00105091

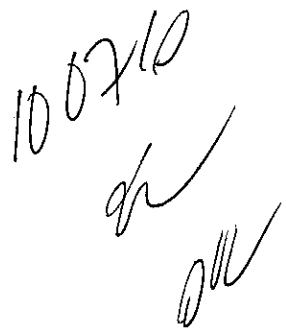
Validation Qualifier Data Entry Verification

Run Date: October 7, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt REX Dil:	Parameter:	Result:	Units:	Qlfr:	Hit Use BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47SB-A01(9-11)	D2216	NONE	N 0 1	PERCENT SOLIDS	82.6	Percent		Y Y				L10080740-01	07:26
	SW6850	NONE	N 0 1	PERCHLORATE	1.19	ug/kg	U	N Y	U			L10080740-01	20:02
47SB-A03(9-11)	D2216	NONE	N 0 1	PERCENT SOLIDS	80.0	Percent		Y Y				L10080740-02	07:26
	SW6850	NONE	N 0 1	PERCHLORATE	1.25	ug/kg	U	N Y	U			L10080740-02	20:28
47SB-A05(9-11)	D2216	NONE	N 0 1	PERCENT SOLIDS	82.8	Percent		Y Y				L10080740-03	07:26
	SW6850	NONE	N 0 1	PERCHLORATE	1.19	ug/kg	U	N Y	U			L10080740-03	20:55
47SB-C07(9-11)	D2216	NONE	N 0 1	PERCENT SOLIDS	83.6	Percent		Y Y				L10080740-04	07:26
	SW6850	NONE	N 0 1	PERCHLORATE	1.17	ug/kg	U	N Y	U			L10080740-04	21:21

10/07/10



L1080740 00105092

COC NO. LHAAP47-082010-2

Shaw Environmental & Infrastructure, Inc.
1401 Enclave Parkway, Suite 250
Houston, TX 77077
(281) 531-3100

Lab Name: Environmental Waste Solutions C/O Microbac
Address : 158 Starlite Drive, Marietta OH 45750
Contact : Stephanie Mossburg
Phone: 1-800-373-4071

PM: Praveen Srivastav (281.531.3188) TAT: RUSH
Project Contact: Jen Hoang Phone No: 281-531-3108
Project Name: LHAAP Site: SITE 47
Project #: 117591-009A130 Location: Karnack, TX

Sampler Print: Allen Willmore (713.247.9292) Susan Oller (281.989.3544)
Sampler Sign:

Sample Number	Grab	Date	Time	Matrix	# Of Containers	Perchlorate (6850)-28day HT										Comments
47SB-A01(9-11)	x	08/24/2010	1410	Soil	1	X										
47SB-A03(9-11)	x	08/24/2010	1450	Soil	1	X										
47SB-A05(9-11)	x	08/25/2010	1450	Soil	1	X										
47SB-A07(9-11)	x	08/25/2010	NA	Soil	NA	NA										
47SB-A09(9-11)	x	08/25/2010	NA	Soil	NA	NA										
47SB-C07(9-11)	x	08/25/2010	1530	Soil	1	X										

Relinquished By: Date/Time 8/26/10
Received By: Date/Time

Special Instructions
C03(9-11) HOLD FOR INTERVAL (GW/VZ) RESULTS

Relinquished By: Date/Time
Received for Laboratory By: Date/Time
Remarks:

Microbac OVD
Received: 08/27/2010 09:57
By: BRENDA GREENWALT
Brenda Greenwalt

221000008515

Page 52

COOLER INSPECTION

Microbac®

Received: 08/27/2010 09:57
Delivery Method: UPS
Opened By: Brenda Greenwalt
Comments:

Login(s): L10080740|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0014785	G	2.0	1Z66V7250197113306	LHAAP47-082010-2	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (less than 6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080740
Account: 2773
Project: 2773.025
Samples: 4
Due Date: 31-AUG-2010

Samplenum	Container ID	Products
L10080740-01	731438	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:21	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 12:27	WTD	JKT
Comments:Products cancelled.						
3	ANALYZ	SEM	WET	27-AUG-2010 13:04	JDH	WTD
Comments:Products cancelled.						
4	STORE	WET	W1	30-AUG-2010 13:43	JKT	JDH
Comments:Products cancelled.						
5	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
6	STORE	SEM	A1	30-AUG-2010 15:43	JKT	WTD
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080740-01	731444	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:23	JKT	

Samplenum	Container ID	Products
L10080740-02	731439	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:21	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 12:27	WTD	JKT
Comments:Products cancelled.						
3	ANALYZ	SEM	WET	27-AUG-2010 13:04	JDH	WTD
Comments:Products cancelled.						
4	STORE	WET	W1	30-AUG-2010 13:43	JKT	JDH
Comments:Products cancelled.						
5	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
6	STORE	SEM	A1	30-AUG-2010 15:43	JKT	WTD
Comments:Products cancelled.						

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080740
Account: 2773
Project: 2773.025
Samples: 4
Due Date: 31-AUG-2010

Samplenum	Container ID	Products
L10080740-02	731445	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:23	JKT	

Samplenum	Container ID	Products
L10080740-03	731440	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:21	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 12:27	WTD	JKT
Comments:Products cancelled.						
3	ANALYZ	SEM	WET	27-AUG-2010 13:04	JDH	WTD
Comments:Products cancelled.						
4	STORE	WET	W1	30-AUG-2010 13:43	JKT	JDH
Comments:Products cancelled.						
5	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
6	STORE	SEM	A1	30-AUG-2010 15:43	JKT	WTD
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080740-03	731446	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:23	JKT	

Samplenum	Container ID	Products
L10080740-04	731441	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:21	JKT	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080740
Account: 2773
Project: 2773.025
Samples: 4
Due Date: 31-AUG-2010

Samplenum	Container ID	Products
L10080740-04	731447	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:23	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 12:27	WTD	JKT
3	ANALYZ	SEM	WET	27-AUG-2010 13:04	JDH	WTD
4	STORE	WET	W1	30-AUG-2010 13:43	JKT	JDH
5	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
6	STORE	SEM	A1	30-AUG-2010 15:43	JKT	WTD

Samplenum	Container ID	Products
L10080740-05	731442	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:21	JKT	

Samplenum	Container ID	Products
L10080740-06	731443	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:21	JKT	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080740

09/08/10 15:26

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-A01 (9-11)	L10080740-01	6850	1	27-AUG-10
47SB-A03 (9-11)	L10080740-02	6850	1	27-AUG-10
47SB-A05 (9-11)	L10080740-03	6850	1	27-AUG-10
47SB-C07 (9-11)	L10080740-04	6850	1	27-AUG-10

Microbac Laboratories Inc.

Report Number: L10080740

Report Date : September 8, 2010

Sample Number: L10080740-01
Client ID: 47SB-A01 (9-11)
Matrix: Soil
Workgroup Number: WG341280
Collect Date: 08/24/2010 14:10
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:57
Cal Date: 08/26/2010 21:10
Run Date: 08/30/2010 20:02
File ID: 1LM.LM05058
Percent Solid: 82.6

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.39	1.19

U Not detected at or above adjusted sample detection limit

Microbac

Microbac Laboratories Inc.

Report Number: L10080740
Report Date : September 8, 2010

Sample Number: L10080740-02
Client ID: 47SB-A03 (9-11)
Matrix: Soil
Workgroup Number: WG341280
Collect Date: 08/24/2010 14:50
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:57
Cal Date: 08/26/2010 21:10
Run Date: 08/30/2010 20:28
File ID: 1LM.LM05059
Percent Solid: 80.0

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.49	1.25

U Not detected at or above adjusted sample detection limit

Microbac

Microbac Laboratories Inc.

Report Number: L10080740
Report Date : September 8, 2010

Sample Number: L10080740-03
Client ID: 47SB-A05 (9-11)
Matrix: Soil
Workgroup Number: WG341280
Collect Date: 08/25/2010 14:50
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:57
Cal Date: 08/26/2010 21:10
Run Date: 08/30/2010 20:55
File ID: 1LM.LM05060
Percent Solid: 82.8

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.38	1.19

U Not detected at or above adjusted sample detection limit

Microbac

Report Number: L10080740

Report Date : September 8, 2010

Sample Number: L10080740-04
Client ID: 47SB-C07 (9-11)
Matrix: Soil
Workgroup Number: WG341280
Collect Date: 08/25/2010 15:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:57
Cal Date: 08/26/2010 21:10
Run Date: 08/30/2010 21:21
File ID: 1LM.LM05061
Percent Solid: 83.6

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.34	1.17

U Not detected at or above adjusted sample detection limit

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080740
Blank File ID: 1LM.LM05056
Prep Date: 08/30/10 16:57
Analyzed Date: 08/30/10 19:09
Analyst: WTD

Work Group: WG341280
Blank Sample ID: WG341280-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG341280-16	1LM.LM05054	08/30/10 17:50	01
MCT	WG341280-01	1LM.LM05055	08/30/10 18:43	01
LCS	WG341280-03	1LM.LM05057	08/30/10 19:36	01
47SB-A01 (9-11)	L10080740-01	1LM.LM05058	08/30/10 20:02	01
47SB-A03 (9-11)	L10080740-02	1LM.LM05059	08/30/10 20:28	01
47SB-A05 (9-11)	L10080740-03	1LM.LM05060	08/30/10 20:55	01
47SB-C07 (9-11)	L10080740-04	1LM.LM05061	08/30/10 21:21	01
QCMRL	WG341280-17	1LM.LM05066	08/30/10 23:33	01
QCMRL	WG341280-18	1LM.LM05079	08/31/10 05:17	01
QCMRL	WG341280-19	1LM.LM05092	08/31/10 11:00	01
QCMRL	WG341280-19	1LM.LM05104	08/31/10 16:17	02
QCMRL	WG341280-20	1LM.LM05117	08/31/10 22:01	01
QCMRL	WG341280-21	1LM.LM05143	09/01/10 09:29	01
QCMRL	WG341280-22	1LM.LM05154	09/01/10 14:20	01

Report Name: BLANK_SUMMARY
PDF File ID: 1769470
Report generated 09/02/2010 14:25

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080740 Prep Date:08/30/10 16:57 Sample ID:WG341280-02
Instrument ID:LCMS1 Run Date:08/30/10 19:09 Prep Method:6850
File ID:1LM.LM05056 Analyst:WTD Method:6850
Workgroup (AAB#):WG341280 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-26-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.985	1.97	0.985	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1769471
02-SEP-2010 14:25

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080740 Run Date: 08/30/2010 Sample ID: WG341280-03
Instrument ID: LCMS1 Run Time: 19:36 Prep Method: 6850
File ID: 1LM.LM05057 Analyst: WTD Method: 6850
Workgroup (AAB#): WG341280 Matrix: Soil Units: ug/kg
QC Key: STD Lot#: STD40906 Cal ID: LCMS1-26-AUG-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Perchlorate	1.99	1.91	96.0	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 1769472
Report generated: 09/02/2010 14:25

Conductivity Probe Calibration Check:
1406 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level:
10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
W6341280-01 MCT	10,220	NA
-02 Blk	11.4	
-03 LCS	12.1	
L10080740-01	9.6	
-02	13.3	
-03	7.2	
-04	6.7	
L10080790-01	100.7	
-02	100.2	
-03	94.8	
-04	95.8	
-05	66.4	
-06	92.2	
-07	138.9	
-08	119.3	
L10080792-01	11.0	
-02	11.7	
-03	11.4	
-04	9.7	
-05	8.3	
-06	8.9	

Wade J. Doty
Analyst

08-31-10 / 0905
~~08-30-~~
Date/Time

DCN#84243

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080740

09/08/10 15:26

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-A01 (9-11)	L10080740-01	D2216-90	1	27-AUG-10
47SB-A03 (9-11)	L10080740-02	D2216-90	1	27-AUG-10
47SB-A05 (9-11)	L10080740-03	D2216-90	1	27-AUG-10
47SB-C07 (9-11)	L10080740-04	D2216-90	1	27-AUG-10

Report Number: L10080740
Report Date : September 8, 2010

Sample Number: L10080740-01
Client ID: 47SB-A01 (9-11)
Matrix: Soil
Workgroup Number: WG341142
Collect Date: 08/24/2010 14:10
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/28/2010 07:26
Cal Date:
Run Date: 08/28/2010 07:26
File ID: B1.341125-0185

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	82.6		1.00	1.00

Microbac

Report Number: L10080740

Report Date : September 8, 2010

Sample Number:	L10080740-02	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	47SB-A03 (9-11)	Prep Method:	D2216-90	Prep Date:	08/28/2010 07:26
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG341142	Analyst:	JDH	Run Date:	08/28/2010 07:26
Collect Date:	08/24/2010 14:50	Dilution:	1	File ID:	B1.341125-0186
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	80.0		1.00	1.00

Report Number: L10080740
Report Date : September 8, 2010

Sample Number: L10080740-03
Client ID: 47SB-A05 (9-11)
Matrix: Soil
Workgroup Number: WG341142
Collect Date: 08/25/2010 14:50
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/28/2010 07:26
Cal Date:
Run Date: 08/28/2010 07:26
File ID: B1.341125-0187

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	82.8		1.00	1.00

Report Number: L10080740

Report Date : September 8, 2010

Sample Number: L10080740-04
Client ID: 47SB-C07 (9-11)
Matrix: Soil
Workgroup Number: WG341142
Collect Date: 08/25/2010 15:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/28/2010 07:26
Cal Date:
Run Date: 08/28/2010 07:26
File ID: B1.341125-0188

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	83.6		1.00	1.00

Validation Qualifier Data Entry Verification

Run Date: September 20, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47SB-A01(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	86.7	Percent		Y	Y								L10080741-01	07:26
	SW6850	NONE	N	0	1	PERCHLORATE	3.17	ug/kg		Y	Y								L10080741-01	20:42
47SB-A03(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	83.5	Percent		Y	Y								L10080741-02	07:26
	SW6850	NONE	N	0	1	PERCHLORATE	1.18	ug/kg	U	N	Y		U						L10080741-02	21:09
47SB-A05(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	80.3	Percent		Y	Y								L10080741-03	07:26
	SW6850	NONE	N	0	1	PERCHLORATE	1.22	ug/kg	U	N	Y		U						L10080741-03	21:35
47SB-A07(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	81.5	Percent		Y	Y								L10080741-06	07:26
	SW6850	NONE	N	0	1	PERCHLORATE	1.22	ug/kg	U	N	Y		U						L10080741-06	22:54
47SB-A09(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	86.3	Percent		Y	Y								L10080741-07	07:26
	SW6850	NONE	N	0	1	PERCHLORATE	1.14	ug/kg	U	N	Y		U						L10080741-07	23:21
47SB-C07(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	86.7	Percent		Y	Y								L10080741-08	07:26
	SW6850	NONE	N	0	1	PERCHLORATE	1.11	ug/kg	U	N	Y		U						L10080741-08	01:06

ok
09/2010

L100807400105120

COC NO. LHAAP47-082010-1

Shaw Environmental & Infrastructure, Inc.
1401 Enclave Parkway, Suite 250
Houston, TX 77077
(281) 531-3100

Lab Name: Environmental Waste Solutions C/O Microbac
Address : 158 Starlite Drive, Marietta OH 45750
Contact : Stephanie Mossburg
Phone: 1-800-373-4071

PM: Praveen Srivastav (281.531.3188) TAT: 24 HR RUSH
Project Contact: Jen Hoang Phone No: 281-531-3108
Project Name: LHAAP Site: SITE 47
Project #: 117591-009A130 Location: Karnack, TX

Sampler Print: Allen Willmore (713.247.9292) Susan Oller (281.989.3544)
Sampler Sign:

Sample Number	Grab	Date	Time	Matrix	# Of Containers	Perchlorate (6850)-28day HT										Comments
47SB-A01(GW/VZ)	x	08/24/2010	1415	Soil	1	X										
47SB-A03(GW/VZ)	x	08/24/2010	1455	Soil	1	X										
47SB-A05(GW/VZ)	x	08/25/2010	1455	Soil	1	X										MS /MSD
47SB-A07(GW/VZ)	x	08/25/2010	1550	Soil	1	X										
47SB-A09(GW/VZ)	x	08/25/2010	1625	Soil	1	X										
47SB-C07(GW/VZ)	x	08/25/2010	1525	Soil	1	X										

Relinquished By: Date/Time 8/26/10 17:00
Received By: Date/Time

Special Instructions
24 HR TAT DUE WEDN. 08/25/2010 BY 9AM

Microbac OVD 221000008513
Received: 08/27/2010 09:57
By: BRENDA GREENWALT
Brenda Greenwalt

Relinquished By: Date/Time
Received for Laboratory By: Date/Time
Remarks:

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COOLER INSPECTION

Microbac

Received: 08/27/2010 09:57
Delivery Method: UPS
Opened By: Brenda Greenwalt
Comments:

Login(s): L10080741|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0014785	G	2.0	1Z66V7250197113306	lhaap47-082010-1	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (less than 6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080741
Account: 2773
Project: 2773.025
Samples: 8
Due Date: 30-AUG-2010

Samplenum	Container ID	Products
L10080741-01	731448	PCT-S 6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:26	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 12:29	WTD	JKT
3	ANALYZ	SEM	WET	27-AUG-2010 13:04	JDH	WTD
4	STORE	WET	A1	30-AUG-2010 13:49	JKT	JDH

Samplenum	Container ID	Products
L10080741-02	731449	PCT-S 6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:26	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 12:29	WTD	JKT
3	ANALYZ	SEM	WET	27-AUG-2010 13:04	JDH	WTD
4	STORE	WET	A1	30-AUG-2010 13:49	JKT	JDH

Samplenum	Container ID	Products
L10080741-03	731450	PCT-S 6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:26	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 12:29	WTD	JKT
3	ANALYZ	SEM	WET	27-AUG-2010 13:04	JDH	WTD
4	STORE	WET	A1	30-AUG-2010 13:49	JKT	JDH

Samplenum	Container ID	Products
L10080741-04	731451	PCT-S 6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:26	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 12:29	WTD	JKT
3	ANALYZ	SEM	WET	27-AUG-2010 13:04	JDH	WTD
4	STORE	WET	A1	30-AUG-2010 13:49	JKT	JDH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080741
Account: 2773
Project: 2773.025
Samples: 8
Due Date: 30-AUG-2010

Samplenum	Container ID	Products
L10080741-05	731452	PCT-S 6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:26	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 12:29	WTD	JKT
3	ANALYZ	SEM	WET	27-AUG-2010 13:04	JDH	WTD
4	STORE	WET	A1	30-AUG-2010 13:49	JKT	JDH

Samplenum	Container ID	Products
L10080741-06	731453	PCT-S 6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:26	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 12:29	WTD	JKT
3	ANALYZ	SEM	WET	27-AUG-2010 13:04	JDH	WTD
4	STORE	WET	A1	30-AUG-2010 13:49	JKT	JDH

Samplenum	Container ID	Products
L10080741-07	731454	PCT-S 6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:26	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 12:29	WTD	JKT
3	ANALYZ	SEM	WET	27-AUG-2010 13:04	JDH	WTD
4	STORE	WET	A1	30-AUG-2010 13:49	JKT	JDH

Samplenum	Container ID	Products
L10080741-08	731455	PCT-S 6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 12:26	JKT	
2	ANALYZ	W1	SEM	27-AUG-2010 12:29	WTD	JKT
3	ANALYZ	SEM	WET	27-AUG-2010 13:04	JDH	WTD
4	STORE	WET	A1	30-AUG-2010 13:49	JKT	JDH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080741

09/03/10 13:19

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	QC Type	Lab ID	Method	Dilution	Date Received
47SB-A01 (GW/VZ)		L10080741-01	6850	1	27-AUG-10
47SB-A03 (GW/VZ)		L10080741-02	6850	1	27-AUG-10
47SB-A05 (GW/VZ)		L10080741-03	6850	1	27-AUG-10
47SB-A05 (GW/VZ)	MS	L10080741-04	6850	1	27-AUG-10
47SB-A05 (GW/VZ)	MSD	L10080741-05	6850	1	27-AUG-10
47SB-A07 (GW/VZ)		L10080741-06	6850	1	27-AUG-10
47SB-A09 (GW/VZ)		L10080741-07	6850	1	27-AUG-10
47SB-C07 (GW/VZ)		L10080741-08	6850	1	27-AUG-10

Microbac Laboratories Inc.

Report Number: L10080741
Report Date : September 3, 2010

(13-14)

Sample Number: L10080741-01
Client ID: 47SB-A01 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341121
Collect Date: 08/24/2010 14:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/27/2010 09:01
Cal Date: 08/26/2010 21:10
Run Date: 08/27/2010 20:42
File ID: 1LM.LM04926
Percent Solid: 86.7

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	3.17		2.30	1.15

W 090810

Microbac

00105131

Report Number: L10080741
Report Date : September 3, 2010

(14-15)

Sample Number: L10080741-02
Client ID: 47SB-A03 (GW/WZ)
Matrix: Soil
Workgroup Number: WG341121
Collect Date: 08/24/2010 14:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/27/2010 09:01
Cal Date: 08/26/2010 21:10
Run Date: 08/27/2010 21:09
File ID: 1LM.LM04927
Percent Solid: 83.5

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.37	1.18

U Not detected at or above adjusted sample detection limit

2 of 8

Microbac Laboratories Inc.

Report Number: L10080741
Report Date : September 3, 2010

(12.5-13.5)

Sample Number:	L10080741-03	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47SB-A05 (GW/VZ)	Prep Method:	6850	Prep Date:	08/27/2010 09:01
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/26/2010 21:10
Workgroup Number:	WG341121	Analyst:	WTD	Run Date:	08/27/2010 21:35
Collect Date:	08/25/2010 14:55	Dilution:	1	File ID:	1LM.LM04928
Sample Tag:	01	Units:	ug/kg	Percent Solid:	80.3

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.44	1.22

U Not detected at or above adjusted sample detection limit

9/8/10

Microbac

Report Number: L10080741
Report Date : September 3, 2010

MS

Sample Number:	L10080741-04	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47SB-A05 (GW/VZ)	Prep Method:	6850	Prep Date:	08/27/2010 09:01
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/26/2010 21:10
Workgroup Number:	WG341121	Analyst:	WTD	Run Date:	08/27/2010 22:02
Collect Date:	08/25/2010 14:55	Dilution:	1	File ID:	1LM.LM04929
Sample Tag:	01	Units:	ug/kg	Percent Solid:	80.3

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	2.25	J	2.43	1.21

J The analyte was positively identified, but the quantitation was below the RL

Report Number: L10080741
Report Date : September 3, 2010

MSD

Sample Number: L10080741-05
Client ID: 47SB-A05 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341121
Collect Date: 08/25/2010 14:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/27/2010 09:01
Cal Date: 08/26/2010 21:10
Run Date: 08/27/2010 22:28
File ID: 1LM.LM04930
Percent Solid: 80.3

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	2.49		2.48	1.24

00105135

Report Number: L10080741
Report Date : September 3, 2010

(4-6)

Sample Number: L10080741-06
Client ID: 47SB-A07 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341121
Collect Date: 08/25/2010 15:50
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/27/2010 09:01
Cal Date: 08/26/2010 21:10
Run Date: 08/27/2010 22:54
File ID: 1LM.LM04931
Percent Solid: 81.5

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.43	1.22

U Not detected at or above adjusted sample detection limit

W 090810

Microbac

00105136

Report Number: L10080741
Report Date : September 3, 2010

(9-11)

Sample Number:	L10080741-07	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47SB-A09 (GW/WZ)	Prep Method:	6850	Prep Date:	08/27/2010 09:01
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/26/2010 21:10
Workgroup Number:	WG341121	Analyst:	WTD	Run Date:	08/27/2010 23:21
Collect Date:	08/25/2010 16:25	Dilution:	1	File ID:	1LM.LM04932
Sample Tag:	01	Units:	ug/kg	Percent Solid:	86.3

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.27	1.14

U Not detected at or above adjusted sample detection limit

9/6/10

Microbac

Report Number: L10080741
Report Date : September 3, 2010

(13,14)

Sample Number:	L10080741-08	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47SB-C07 (GW/WZ)	Prep Method:	6850	Prep Date:	08/27/2010 09:01
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/26/2010 21:10
Workgroup Number:	WG341121	Analyst:	WTD	Run Date:	08/28/2010 01:06
Collect Date:	08/25/2010 15:25	Dilution:	1	File ID:	1LM.LM04936
Sample Tag:	01	Units:	ug/kg	Percent Solid:	86.7

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.22	1.11

U Not detected at or above adjusted sample detection limit

L090810

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080741
Work Group: WG341121
Blank File ID: 1LM.LM04924
Blank Sample ID: WG341121-02
Prep Date: 08/27/10 09:01
Instrument ID: LCMS1
Analyzed Date: 08/27/10 19:50
Method: 6850
Analyst: WTD

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG341121-07	1LM.LM04921	08/27/10 18:30	01
MCT	WG341121-01	1LM.LM04923	08/27/10 19:23	01
LCS	WG341121-03	1LM.LM04925	08/27/10 20:16	01
47SB-A01 (GW/VZ)	L10080741-01	1LM.LM04926	08/27/10 20:42	01
47SB-A03 (GW/VZ)	L10080741-02	1LM.LM04927	08/27/10 21:09	01
47SB-A05 (GW/VZ)	L10080741-03	1LM.LM04928	08/27/10 21:35	01
47SB-A05 (GW/VZ)	L10080741-04	1LM.LM04929	08/27/10 22:02	01
47SB-A05 (GW/VZ)	L10080741-05	1LM.LM04930	08/27/10 22:28	01
47SB-A07 (GW/VZ)	L10080741-06	1LM.LM04931	08/27/10 22:54	01
47SB-A09 (GW/VZ)	L10080741-07	1LM.LM04932	08/27/10 23:21	01
QCMRL	WG341121-08	1LM.LM04934	08/28/10 00:14	01
47SB-A07 (GW/VZ)	L10080741-08	1LM.LM04936	08/28/10 01:06	01
QCMRL	WG341121-09	1LM.LM04944	08/28/10 04:38	01

Report Name: BLANK_SUMMARY
PDF File ID: I765089
Report generated 08/28/2010 12:40

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080741 Prep Date:08/27/10 09:01 Sample ID:WG341121-02
Instrument ID:LCMS1 Run Date:08/27/10 19:50 Prep Method:6850
File ID:1LM.LM04924 Analyst:WTD Method:6850
Workgroup (AAB#):WG341121 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-26-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.993	1.99	0.993	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1765090
28-AUG-2010 12:40

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080741 Run Date: 08/27/2010 Sample ID: WG341121-03
Instrument ID: LCMS1 Run Time: 20:16 Prep Method: 6850
File ID: 1LM.LM04925 Analyst: WTD Method: 6850
Workgroup (AAB#): WG341121 Matrix: Soil Units: ug/kg
QC Key: STD Lot#: STD40906 Cal ID: LCMS1-26-AUG-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Perchlorate	1.99	1.89	95.0	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 1765091
Report generated: 08/28/2010 12:40

Microbac

Conductivity Probe Calibration Check:
1411 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level:
10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG341121-01 MCT	10,280	NA
-02 Blk	10.8	
-03 LCS	9.7	
L10080741-01	7.2	
-02	11.3	
-03	17.4	
-04	15.1	
-05	12.7	
-06	7.9	
-07	17.0	
-08	13.9	

Washi. De
Analyst

8-27-10 / 16:18
Date/Time

DCN#84213

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L10080741 Cal ID: LCMS1- 26-AUG-10 Worknum:WG341121

Instrument ID:LCMS1 Contract #:DACA56-94-D-0020 Prep Method:6850

Parent ID:L10080741-03 File ID:1LM.LM04928 Dil:1 Method:6850

Sample ID:L10080741-04 MS File ID:1LM.LM04929 Dil:1 Matrix:Soil

Sample ID:L10080741-05 MSD File ID:1LM.LM04930 Dil:1 Units:ug/kg

Percent Solid:100

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Perchlorate	U	1.95	1.80	92.5	1.99	2.00	101	10.4	80 - 120	15	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008
PDF File ID: 1765092
Report generated 08/28/2010 12:40

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080741

09/03/10 13:19

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	QC Type	Lab ID	Method	Dilution	Date Received
47SB-A01 (GW/VZ)		L10080741-01	D2216-90	1	27-AUG-10
47SB-A03 (GW/VZ)		L10080741-02	D2216-90	1	27-AUG-10
47SB-A05 (GW/VZ)		L10080741-03	D2216-90	1	27-AUG-10
47SB-A05 (GW/VZ)	MS	L10080741-04	D2216-90	1	27-AUG-10
47SB-A05 (GW/VZ)	MSD	L10080741-05	D2216-90	1	27-AUG-10
47SB-A07 (GW/VZ)		L10080741-06	D2216-90	1	27-AUG-10
47SB-A09 (GW/VZ)		L10080741-07	D2216-90	1	27-AUG-10
47SB-C07 (GW/VZ)		L10080741-08	D2216-90	1	27-AUG-10

Report Number: L10080741
Report Date : September 3, 2010

Sample Number: L10080741-01
Client ID: 47SB-A01 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341142
Collect Date: 08/24/2010 14:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/28/2010 07:26
Cal Date:
Run Date: 08/28/2010 07:26
File ID: B1.341125-0189

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	86.7		1.00	1.00

Report Number: L10080741
Report Date : September 3, 2010

Sample Number: L10080741-02
Client ID: 47SB-A03 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341142
Collect Date: 08/24/2010 14:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/28/2010 07:26
Cal Date:
Run Date: 08/28/2010 07:26
File ID: B1.341125-0190

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	83.5		1.00	1.00

Report Number: L10080741
Report Date : September 3, 2010

Sample Number: L10080741-03
Client ID: 47SB-A05 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341142
Collect Date: 08/25/2010 14:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/28/2010 07:26
Cal Date:
Run Date: 08/28/2010 07:26
File ID: B1.341125-0191

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	80.3		1.00	1.00

Report Number: L10080741
Report Date : September 3, 2010

Sample Number: L10080741-04
Client ID: 47SB-A05 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341142
Collect Date: 08/25/2010 14:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/28/2010 07:26
Cal Date:
Run Date: 08/28/2010 07:26
File ID: B1.341125-0192

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	80.3		1.00	1.00

Report Number: L10080741
Report Date : September 3, 2010

Sample Number: L10080741-05
Client ID: 47SB-A05 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341142
Collect Date: 08/25/2010 14:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/28/2010 07:26
Cal Date:
Run Date: 08/28/2010 07:26
File ID: B1.341125-0193

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	80.3		1.00	1.00

Report Number: L10080741
Report Date : September 3, 2010

Sample Number: L10080741-06
Client ID: 47SB-A07 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341142
Collect Date: 08/25/2010 15:50
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/28/2010 07:26
Cal Date:
Run Date: 08/28/2010 07:26
File ID: B1.341125-0194

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	81.5		1.00	1.00

Report Number: L10080741
Report Date : September 3, 2010

Sample Number: L10080741-07
Client ID: 47SB-A09 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341142
Collect Date: 08/25/2010 16:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/28/2010 07:26
Cal Date:
Run Date: 08/28/2010 07:26
File ID: B1.341125-0195

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	86.3		1.00	1.00

Report Number: L10080741

Report Date : September 3, 2010

Sample Number: L10080741-08
Client ID: 47SB-C07 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341142
Collect Date: 08/25/2010 15:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/28/2010 07:26
Cal Date:
Run Date: 08/28/2010 07:26
File ID: B1.341125-0196

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	86.7		1.00	1.00

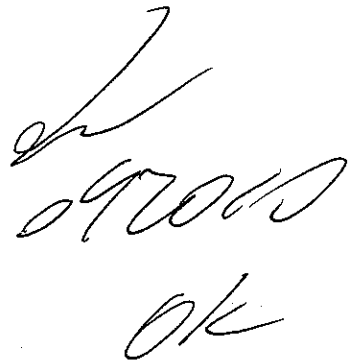
00105155

Validation Qualifier Data Entry Verification

Run Date: September 20, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47SB-A01(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	95.3	Percent		Y	Y					L10080749-01	08:42
	SW6850	NONE	N	0	1	PERCHLORATE	1.25	ug/kg	U	N	Y		U			L10080749-01	04:43
47SB-A03(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	91.6	Percent		Y	Y					L10080749-02	08:42
	SW6850	NONE	N	0	1	PERCHLORATE	1.06	ug/kg	U	N	Y		U			L10080749-02	05:09
47SB-A05(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	91.5	Percent		Y	Y					L10080749-03	08:42
	SW6850	NONE	N	0	1	PERCHLORATE	1.02	ug/kg	U	N	Y		U			L10080749-03	05:35
47SB-A07(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	91.0	Percent		Y	Y					L10080749-04	08:29
	SW6850	NONE	N	0	1	PERCHLORATE	1.09	ug/kg	U	N	Y		U			L10080749-04	10:22
47SB-A09(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	93.6	Percent		Y	Y					L10080749-05	08:42
	SW6850	NONE	N	0	1	PERCHLORATE	1.07	ug/kg	U	N	Y		U			L10080749-05	06:02
47SB-C07(0-2)	D2216	NONE	N	0	1	PERCENT SOLIDS	82.6	Percent		Y	Y					L10080749-06	08:42
	SW6850	NONE	N	0	1	PERCHLORATE	1.31	ug/kg	U	N	Y		U			L10080749-06	06:28



L1008074900105156

COC NO. LHAAP47-082010-4

Shaw Environmental & Infrastructure, Inc.
1401 Enclave Parkway, Suite 250
Houston, TX 77077
(281) 531-3100

Lab Name: Environmental Waste Solutions C/O Microbac
Address : 158 Starlite Drive, Marietta OH 45750
Contact : Stephanie Mossburg
Phone: 1-800-373-4071

PM: Praveen Srivastav (281.531.3188) TAT: HOLD
Project Contact: Jen Hoang Phone No: 281-531-3108
Project Name: LHAAP Site: SITE 47
Project #: 117591-009A130 Location: Karnack, TX

Sampler Print: Allen Willmore (713.247.9292) Susan Oller (281.989.3544)
Sampler Sign:

Sample Number	Grab	Date	Time	Matrix	# Of Containers	Perchlorate (6850)-28day HT											Comments
47SB-A01(0-2)	x	08/24/2010	1355	Soil	1	X											
47SB-A03(0-2)	x	08/24/2010	1440	Soil	1	X											
47SB-A05(0-2)	x	08/25/2010	1440	Soil	1	X											
47SB-A07(0-2)	x	08/25/2010	1545	Soil	1	X											
47SB-A09(0-2)	x	08/25/2010	1615	Soil	1	X											
47SB-C07(0-2)	x	08/25/2010	1520	Soil	1	X											

Relinquished By: Date/Time 8/24/10 17:00
Received By: Date/Time

Special Instructions
HOLD FOR INTERVAL (4-6) RESULTS

Relinquished By: Date/Time
Received for Laboratory By: Date/Time
Remarks:

Microbac OVD
Received: 08/27/2010 09:57
By: BRENDA GREENWALT
221000008514

Brenda Greenwalt

Page 83

COOLER INSPECTION

Microbac

Received: 08/27/2010 09:57
Delivery Method: UPS
Opened By: Brenda Greenwalt
Comments:

Login(s): L10080749|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0014785	G	2.0	1Z66V7250197113306	LHAAP47-082010-4	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (less than 6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080749
Account: 2773
Project: 2773.025
Samples: 6
Due Date: 02-SEP-2010

Samplenum	Container ID	Products
L10080749-01	731543	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 13:31	ERP	

Samplenum	Container ID	Products
L10080749-01	734305	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	01-SEP-2010 15:00	RLK	
2	ANALYZ	L1	SEM	01-SEP-2010 15:10	ADC	JKT
3	STORE	WET	A1	03-SEP-2010 09:46	RLK	JDH

Samplenum	Container ID	Products
L10080749-02	731544	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 13:31	ERP	

Samplenum	Container ID	Products
L10080749-02	734306	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	01-SEP-2010 15:00	RLK	
2	ANALYZ	L1	SEM	01-SEP-2010 15:10	ADC	JKT
3	STORE	WET	A1	03-SEP-2010 09:45	RLK	JDH

Samplenum	Container ID	Products
L10080749-03	731545	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	27-AUG-2010 13:31	ERP	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080749
Account: 2773
Project: 2773.025
Samples: 6
Due Date: 02-SEP-2010

Samplenum	Container ID	Products
L10080749-03	734307	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	01-SEP-2010 15:00	RLK	
2	ANALYZ	L1	SEM	01-SEP-2010 15:10	ADC	JKT
3	STORE	WET	A1	03-SEP-2010 09:45	RLK	JDH

Samplenum	Container ID	Products
L10080749-04	731546	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	w1	27-AUG-2010 13:31	ERP	

Samplenum	Container ID	Products
L10080749-04	733282	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	31-AUG-2010 13:41	JKT	
2	ANALYZ	W1	SEM	31-AUG-2010 14:25	WTD	JKT
3	STORE	SEM	W1	31-AUG-2010 14:29	JKT	WTD
4	ANALYZ	W1	WET	31-AUG-2010 15:16	JDH	RLK

Samplenum	Container ID	Products
L10080749-05	731547	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	w1	27-AUG-2010 13:31	ERP	

Samplenum	Container ID	Products
L10080749-05	734308	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	01-SEP-2010 15:00	RLK	
2	ANALYZ	L1	SEM	01-SEP-2010 15:10	ADC	JKT
3	STORE	WET	W1	02-SEP-2010 11:48	RLK	JDH
4	ANALYZ	W1	SEM	02-SEP-2010 13:21	WTD	JKT
5	STORE	WET	A1	03-SEP-2010 09:45	RLK	JDH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080749
Account: 2773
Project: 2773.025
Samples: 6
Due Date: 02-SEP-2010

Samplenum	Container ID	Products
L10080749-06	731548	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	w1	27-AUG-2010 13:31	ERP	

Samplenum	Container ID	Products
L10080749-06	734309	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	01-SEP-2010 15:00	RLK	
2	ANALYZ	L1	SEM	01-SEP-2010 15:10	ADC	JKT
3	STORE	WET	W1	02-SEP-2010 11:48	RLK	JDH
4	ANALYZ	W1	SEM	02-SEP-2010 13:21	WTD	JKT
5	STORE	WET	A1	03-SEP-2010 09:45	RLK	JDH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080749

09/15/10 08:09

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-A01(0-2)	L10080749-01	6850	1	27-AUG-10
47SB-A03(0-2)	L10080749-02	6850	1	27-AUG-10
47SB-A05(0-2)	L10080749-03	6850	1	27-AUG-10
47SB-A07(0-2)	L10080749-04	6850	1	27-AUG-10
47SB-A09(0-2)	L10080749-05	6850	1	27-AUG-10
47SB-C07(0-2)	L10080749-06	6850	1	27-AUG-10

Report Number: L10080749
Report Date : September 15, 2010

Sample Number: L10080749-01
Client ID: 47SB-A01(0-2)
Matrix: Soil
Workgroup Number: WG341770
Collect Date: 08/24/2010 13:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 09/03/2010 11:53
Cal Date: 08/26/2010 21:10
Run Date: 09/04/2010 04:43
File ID: 1LM.LM05281
Percent Solid: 95.3

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.50	1.25

U Not detected at or above adjusted sample detection limit

09/14/10

Report Number: L10080749
Report Date : September 15, 2010

Sample Number: L10080749-02
Client ID: 47SB-A03(0-2)
Matrix: Soil
Workgroup Number: WG341770
Collect Date: 08/24/2010 14:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 09/03/2010 11:53
Cal Date: 08/26/2010 21:10
Run Date: 09/04/2010 05:09
File ID: 1LM.LM05282
Percent Solid: 91.6

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.13	1.06

U Not detected at or above adjusted sample detection limit

Report Number: L10080749
Report Date : September 15, 2010

Sample Number: L10080749-03
Client ID: 47SB-A05(0-2)
Matrix: Soil
Workgroup Number: WG341770
Collect Date: 08/25/2010 14:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 09/03/2010 11:53
Cal Date: 08/26/2010 21:10
Run Date: 09/04/2010 05:35
File ID: 1LM.LM05283
Percent Solid: 91.5

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.04	1.02

U Not detected at or above adjusted sample detection limit

Report Number: L10080749
Report Date : September 15, 2010

Sample Number: L10080749-04
Client ID: 47SB-A07(0-2)
Matrix: Soil
Workgroup Number: WG341406
Collect Date: 08/25/2010 15:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/31/2010 14:15
Cal Date: 08/26/2010 21:10
Run Date: 09/01/2010 10:22
File ID: 1LM.LM05145
Percent Solid: 91.0

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.19	1.09

U Not detected at or above adjusted sample detection limit

00105171

Report Number: L10080749
Report Date : September 15, 2010

Sample Number:	L10080749-05	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47SB-A09(0-2)	Prep Method:	6850	Prep Date:	09/03/2010 11:53
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/26/2010 21:10
Workgroup Number:	WG341770	Analyst:	WTD	Run Date:	09/04/2010 06:02
Collect Date:	08/25/2010 16:15	Dilution:	1	File ID:	1LM.LM05284
Sample Tag:	01	Units:	ug/kg	Percent Solid:	93.6

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.13	1.07

U Not detected at or above adjusted sample detection limit

W 9/14/10

Microbac

Report Number: L10080749

Report Date : September 15, 2010

Sample Number:	L10080749-06	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47SB-C07(0-2)	Prep Method:	6850	Prep Date:	09/03/2010 11:53
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/26/2010 21:10
Workgroup Number:	WG341770	Analyst:	WTD	Run Date:	09/04/2010 06:28
Collect Date:	08/25/2010 15:20	Dilution:	1	File ID:	1LM.LM05285
Sample Tag:	01	Units:	ug/kg	Percent Solid:	82.6

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.62	1.31

U Not detected at or above adjusted sample detection limit

9/16/10

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080749
Blank File ID: 1LM.LM05120
Prep Date: 08/31/10 14:15
Analyzed Date: 08/31/10 23:21
Analyst: N/A

Work Group: WG341406
Blank Sample ID: WG341406-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG341406-07	1LM.LM05117	08/31/10 22:01	01
MCT	WG341406-01	1LM.LM05119	08/31/10 22:54	01
LCS	WG341406-03	1LM.LM05121	08/31/10 23:47	01
QCMRL	WG341406-08	1LM.LM05130	09/01/10 03:45	01
QCMRL	WG341406-09	1LM.LM05143	09/01/10 09:29	01
47SB-A07(0-2)	L10080749-04	1LM.LM05145	09/01/10 10:22	01
QCMRL	WG341406-10	1LM.LM05154	09/01/10 14:20	01

Report Name: BLANK_SUMMARY
PDF File ID: 1769532
Report generated 09/09/2010 10:52

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080749
Work Group: WG341770
Blank File ID: 1LM.LM05278
Blank Sample ID: WG341770-02
Prep Date: 09/03/10 11:53
Instrument ID: LCMS1
Analyzed Date: 09/04/10 03:23
Method: 6850
Analyst: WTD

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG341770-05	1LM.LM05275	09/04/10 02:04	01
MCT	WG341770-01	1LM.LM05277	09/04/10 02:57	01
LCS	WG341770-03	1LM.LM05279	09/04/10 03:50	01
LCS2	WG341770-04	1LM.LM05280	09/04/10 04:16	01
47SB-A01(0-2)	L10080749-01	1LM.LM05281	09/04/10 04:43	01
47SB-A03(0-2)	L10080749-02	1LM.LM05282	09/04/10 05:09	01
47SB-A05(0-2)	L10080749-03	1LM.LM05283	09/04/10 05:35	01
47SB-A09(0-2)	L10080749-05	1LM.LM05284	09/04/10 06:02	01
47SB-C07(0-2)	L10080749-06	1LM.LM05285	09/04/10 06:28	01
QCMRL	WG341770-06	1LM.LM05288	09/04/10 07:48	01
QCMRL	WG341770-07	1LM.LM05301	09/04/10 13:31	01
QCMRL	WG341770-08	1LM.LM05347	09/07/10 16:33	01
QCMRL	WG341770-09	1LM.LM05355	09/07/10 20:09	01

Report Name: BLANK_SUMMARY
PDF File ID: 1769532
Report generated 09/09/2010 10:52

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080749 Prep Date:08/31/10 14:15 Sample ID:WG341406-02
Instrument ID:LCMS1 Run Date:08/31/10 23:21 Prep Method:6850
File ID:1LM.LM05120 Analyst:N/A Method:6850
Workgroup (AAB#):WG341406 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-26-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.992	1.98	0.992	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1769533
09-SEP-2010 10:52

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080749 Prep Date:09/03/10 11:53 Sample ID:WG341770-02
Instrument ID:LCMS1 Run Date:09/04/10 03:23 Prep Method:6850
File ID:1LM.LM05278 Analyst:WTD Method:6850
Workgroup (AAB#):WG341770 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-26-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.995	1.99	0.995	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1769533
09-SEP-2010 10:52

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080749 Run Date:08/31/2010 Sample ID:WG341406-03
Instrument ID:LCMS1 Run Time:23:47 Prep Method:6850
File ID:1LM.LM05121 Analyst:N/A Method:6850
Workgroup (AAB#):WG341406 Matrix:Soil Units:ug/kg
QC Key:STD Lot#:STD40906 Cal ID: LCMS1-26-AUG-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Perchlorate	1.98	2.04	103	80 - 120	

LCS - Modified 03/06/2008
PDF File ID:1769534
Report generated: 09/09/2010 10:52

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080749 Analyst:WTD Prep Method:6850
Instrument ID:LCMS1 Matrix:Soil Method:6850
Workgroup (AAB#):WG341770 Units:ug/kg
QC Key:STD Lot #:STD40906

Sample ID:WG341770-03 LCS File ID:1LM.LM05279 Run Date:09/04/2010 03:50
Sample ID:WG341770-04 LCS2 File ID:1LM.LM05280 Run Date:09/04/2010 04:16

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Perchlorate	2.03	2.02	99.5	2.05	1.82	88.5	10.5	80 - 120	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1773903
Report generated: 09/09/2010 10:52

Conductivity Probe
Calibration Check:
14.31 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level:
10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG341406-01 MCT	10,180	
-02 BLK	7.3	
-03 LCS	7.7	
L10080749-04	6.1	
750-01	5.9	
-02	9.8	
-03	13.4	
-04	14.9	
-05	19.6	
845-01	306	
-02	265	
-03	218	
-04	267	
-05	120.4	
-06	47.8	
-07	162.3	
-08	153.2	
-09	28.1	
-10 RS	76.9	
-11 MS	59.7	
-12 SD	56.9	

ADC
Analyst

9-1-10
Date/Time

DCN#84265

Conductivity Probe Calibration Check: 1408 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG341770-01 mcr	10,210	NA
-02 Blk	8.9	
-03 LCS	8.6	
-04 LCS2	10.1	
L10080749-01	5.7	
-02	3.6	
-03	4.5	
-05	6.3	
-06	20.1	
L10080878-01	451	
-02	305	
-03	156	
-04	128	
-08	94.1	
-09	45.8	
L10080879-03	87.7	
L10090051-01	41.9	
-02	160	
-03	165	
-10	271	

Wade T. Dep
Analyst

9-3-10 / 11:35
Date/Time

DCN#84310

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080749

09/15/10 08:09

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-A01(0-2)	L10080749-01	D2216-90	1	27-AUG-10
47SB-A03(0-2)	L10080749-02	D2216-90	1	27-AUG-10
47SB-A05(0-2)	L10080749-03	D2216-90	1	27-AUG-10
47SB-A07(0-2)	L10080749-04	D2216-90	1	27-AUG-10
47SB-A09(0-2)	L10080749-05	D2216-90	1	27-AUG-10
47SB-C07(0-2)	L10080749-06	D2216-90	1	27-AUG-10

00105185

Report Number: L10080749
Report Date : September 15, 2010

Sample Number:	L10080749-01	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	47SB-A01(0-2)	Prep Method:	D2216-90	Prep Date:	09/02/2010 08:42
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG341594	Analyst:	JDH	Run Date:	09/02/2010 08:42
Collect Date:	08/24/2010 13:55	Dilution:	1	File ID:	B1.341594-0101
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	95.3		1.00	1.00

Microbac®

00105186

Report Number: L10080749
Report Date : September 15, 2010

Sample Number: L10080749-02
Client ID: 47SB-A03(0-2)
Matrix: Soil
Workgroup Number: WG341594
Collect Date: 08/24/2010 14:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 09/02/2010 08:42
Cal Date:
Run Date: 09/02/2010 08:42
File ID: B1.341594-0102

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	91.6		1.00	1.00

Microbac

Report Number: L10080749
Report Date : September 15, 2010

Sample Number: L10080749-03
Client ID: 47SB-A05(0-2)
Matrix: Soil
Workgroup Number: WG341594
Collect Date: 08/25/2010 14:40
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 09/02/2010 08:42
Cal Date:
Run Date: 09/02/2010 08:42
File ID: B1.341594-0103

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	91.5		1.00	1.00

Report Number: L10080749
Report Date : September 15, 2010

Sample Number: L10080749-04
Client ID: 47SB-A07(0-2)
Matrix: Soil
Workgroup Number: WG341437
Collect Date: 08/25/2010 15:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL013
Prep Date: 09/01/2010 08:29
Cal Date:
Run Date: 09/01/2010 08:29
File ID: B13.341437-0101

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	91.0		1.00	1.00

Report Number: L10080749
Report Date : September 15, 2010

Sample Number: L10080749-05
Client ID: 47SB-A09(0-2)
Matrix: Soil
Workgroup Number: WG341594
Collect Date: 08/25/2010 16:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 09/02/2010 08:42
Cal Date:
Run Date: 09/02/2010 08:42
File ID: B1.341594-0104

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	93.6		1.00	1.00

Report Number: L10080749

Report Date : September 15, 2010

Sample Number: L10080749-06
Client ID: 47SB-C07(0-2)
Matrix: Soil
Workgroup Number: WG341594
Collect Date: 08/25/2010 15:20
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 09/02/2010 08:42
Cal Date:
Run Date: 09/02/2010 08:42
File ID: B1.341594-0105

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	82.6		1.00	1.00

00105191

Validation Qualifier Data Entry Verification

Run Date: September 15, 2010

Longhorn Army Ammunition Pla

Sample Number:	Analytical/Extraction Method:		Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1 2 3 4	Lab Sample:	Analysis Time:
47SB-A01(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	93.4	Percent		Y	Y					L10080750-01	08:29
	SW6850	NONE	N	0	1	PERCHLORATE	1.07	ug/kg	U	N	Y		U			L10080750-01	06:50
47SB-A03(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	87.9	Percent		Y	Y					L10080750-02	08:29
	SW6850	NONE	N	0	1	PERCHLORATE	1.09	ug/kg	U	N	Y		U			L10080750-02	07:17
47SB-A05(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	91.4	Percent		Y	Y					L10080750-03	08:29
	SW6850	NONE	N	0	1	PERCHLORATE	1.08	ug/kg	U	N	Y		U			L10080750-03	07:43
47SB-A09(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	93.0	Percent		Y	Y					L10080750-04	08:29
	SW6850	NONE	N	0	1	PERCHLORATE	1.06	ug/kg	U	N	Y		U			L10080750-04	08:10
47SB-C07(4-6)	D2216	NONE	N	0	1	PERCENT SOLIDS	82.2	Percent		Y	Y					L10080750-05	08:29
	SW6850	NONE	N	0	1	PERCHLORATE	1.19	ug/kg	U	N	Y		U			L10080750-05	08:36

LHAAP-47
(0824)
2
OK
09/15/10

L10807527 00105192

COC NO. LHAAP47-082010-3

Shaw Environmental & Infrastructure, Inc.
1401 Enclave Parkway, Suite 250
Houston, TX 77077
(281) 531-3100

Lab Name: Environmental Waste Solutions C/O Microbac
Address : 158 Starlite Drive, Marietta OH 45750
Contact : Stephanie Mossburg
Phone: 1-800-373-4071

PM: Praveen Srivastav (281.531.3188) TAT: HOLD
Project Contact: Jen Hoang Phone No: 281-531-3108
Project Name: LHAAP Site: SITE 47
Project #: 117591-009A130 Location: Karnack, TX

Sampler Print: Allen Willmore (713.247.9292) Susan Oller (281.989.3544)
Sampler Sign:

Sample Number	Grab	Date	Time	Matrix	# Of Containers	Perchlorate (6850)-28day HT	Comments
47SB-A01(4-6)	x	08/24/2010	1400	Soil	1	X	
47SB-A03(4-6)	x	08/24/2010	1445	Soil	1	X	
47SB-A05(4-6)	x	08/25/2010	1445	Soil	1	X	
47SB-A07(4-6)	x	08/25/2010	~~NA~~	Soil	~~NA~~	~~NA~~	
47SB-A09(4-6)	x	08/25/2010	1620	Soil	1	X	
47SB-C07(4-6)	x	08/25/2010	1525	Soil	1	X	

Relinquished By: Date/Time 8/26/10 17:00
Received By: Date/Time

Special Instructions
HOLD FOR INTERVALS (GW/VZ) & (9-11) RESULTS

Relinquished By: Date/Time
Received for Laboratory By: Date/Time

Remarks:

Microbac OVD 221000008502
Received: 08/27/2010 09:57
By: BRENDA GREENWALT

Brenda Greenwalt



COOLER INSPECTION

Microbac®

Received: 08/27/2010 09:57
Delivery Method: UPS
Opened By: Brenda Greenwalt
Comments:

Login(s): L10080750|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0014785	G	2.0	1Z66V7250197113306	LHAAP47-082010-3	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (less than 6mm)?

Discrepancies:

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080750
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 01-SEP-2010

Samplenum	Container ID	Products
L10080750-01	731549	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER		27-AUG-2010 13:32	ERP	

Samplenum	Container ID	Products
L10080750-01	733200	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	31-AUG-2010 12:37	JKT	
2	ANALYZ	W1	SEM	31-AUG-2010 12:40	WTD	JKT
3	STORE	SEM	W1	31-AUG-2010 12:52	JKT	WTD
4	STORE	SEM	A1	02-SEP-2010 13:45	JKT	WTD

Samplenum	Container ID	Products
L10080750-02	731550	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER		27-AUG-2010 13:32	ERP	

Samplenum	Container ID	Products
L10080750-02	733201	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	31-AUG-2010 12:37	JKT	
2	ANALYZ	W1	SEM	31-AUG-2010 12:40	WTD	JKT
3	STORE	SEM	W1	31-AUG-2010 12:52	JKT	WTD
4	STORE	SEM	A1	02-SEP-2010 13:45	JKT	WTD

Samplenum	Container ID	Products
L10080750-03	731551	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER		27-AUG-2010 13:32	ERP	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080750
Account: 2773
Project: 2773.025
Samples: 5
Due Date: 01-SEP-2010

Samplenum	Container ID	Products
L10080750-03	733202	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	31-AUG-2010 12:37	JKT	
2	ANALYZ	W1	SEM	31-AUG-2010 12:40	WTD	JKT
3	STORE	SEM	W1	31-AUG-2010 12:52	JKT	WTD
4	STORE	SEM	A1	02-SEP-2010 13:45	JKT	WTD

Samplenum	Container ID	Products
L10080750-04	731552	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER		27-AUG-2010 13:32	ERP	

Samplenum	Container ID	Products
L10080750-04	733203	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	31-AUG-2010 12:37	JKT	
2	ANALYZ	W1	SEM	31-AUG-2010 12:40	WTD	JKT
3	STORE	SEM	W1	31-AUG-2010 12:52	JKT	WTD
4	STORE	SEM	A1	02-SEP-2010 13:45	JKT	WTD

Samplenum	Container ID	Products
L10080750-05	731553	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER		27-AUG-2010 13:32	ERP	

Samplenum	Container ID	Products
L10080750-05	733204	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	31-AUG-2010 12:37	JKT	
2	ANALYZ	W1	SEM	31-AUG-2010 12:40	WTD	JKT
3	STORE	SEM	W1	31-AUG-2010 12:52	JKT	WTD
4	STORE	SEM	A1	02-SEP-2010 13:45	JKT	WTD

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080750

09/08/10 15:26

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-A01 (4-6)	L10080750-01	6850	1	27-AUG-10
47SB-A03 (4-6)	L10080750-02	6850	1	27-AUG-10
47SB-A05 (4-6)	L10080750-03	6850	1	27-AUG-10
47SB-A09 (4-6)	L10080750-04	6850	1	27-AUG-10
47SB-C07 (4-6)	L10080750-05	6850	1	27-AUG-10

Microbac Laboratories Inc.

Report Number: L10080750
Report Date : September 8, 2010

Sample Number: L10080750-01
Client ID: 47SB-A01 (4-6)
Matrix: Soil
Workgroup Number: WG341406
Collect Date: 08/24/2010 14:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/31/2010 14:15
Cal Date: 08/26/2010 21:10
Run Date: 09/01/2010 06:50
File ID: 1LM.LM05137
Percent Solid: 93.4

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.13	1.07

U Not detected at or above adjusted sample detection limit

Microbac

Report Number: L10080750

Report Date : September 8, 2010

Sample Number:	L10080750-02	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47SB-A03 (4-6)	Prep Method:	6850	Prep Date:	08/31/2010 14:15
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/26/2010 21:10
Workgroup Number:	WG341406	Analyst:	N/A	Run Date:	09/01/2010 07:17
Collect Date:	08/24/2010 14:45	Dilution:	1	File ID:	1LM.LM05138
Sample Tag:	01	Units:	ug/kg	Percent Solid:	87.9

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.19	1.09

U Not detected at or above adjusted sample detection limit

9/9/10

Report Number: L10080750

Report Date : September 8, 2010

Sample Number:	L10080750-03	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47SB-A05 (4-6)	Prep Method:	6850	Prep Date:	08/31/2010 14:15
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/26/2010 21:10
Workgroup Number:	WG341406	Analyst:	N/A	Run Date:	09/01/2010 07:43
Collect Date:	08/25/2010 14:45	Dilution:	1	File ID:	1LM.LM05139
Sample Tag:	01	Units:	ug/kg	Percent Solid:	91.4

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.16	1.08

U Not detected at or above adjusted sample detection limit

Report Number: L10080750

Report Date : September 8, 2010

Sample Number:	L10080750-04	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47SB-A09 (4-6)	Prep Method:	6850	Prep Date:	08/31/2010 14:15
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/26/2010 21:10
Workgroup Number:	WG341406	Analyst:	N/A	Run Date:	09/01/2010 08:10
Collect Date:	08/25/2010 16:20	Dilution:	1	File ID:	1LM.LM05140
Sample Tag:	01	Units:	ug/kg	Percent Solid:	93.0

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.12	1.06

U Not detected at or above adjusted sample detection limit

9/09/10

Microbac Laboratories Inc.

Report Number: L10080750
Report Date : September 8, 2010

Sample Number: L10080750-05
Client ID: 47SB-C07 (4-6)
Matrix: Soil
Workgroup Number: WG341406
Collect Date: 08/25/2010 15:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/31/2010 14:15
Cal Date: 08/26/2010 21:10
Run Date: 09/01/2010 08:36
File ID: 1LM.LM05141
Percent Solid: 82.2

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.37	1.19

U Not detected at or above adjusted sample detection limit

5/9/10

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080750
Blank File ID: 1LM.LM05120
Prep Date: 08/31/10 14:15
Analyzed Date: 08/31/10 23:21
Analyst: N/A

Work Group: WG341406
Blank Sample ID: WG341406-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG341406-07	1LM.LM05117	08/31/10 22:01	01
MCT	WG341406-01	1LM.LM05119	08/31/10 22:54	01
LCS	WG341406-03	1LM.LM05121	08/31/10 23:47	01
QCMRL	WG341406-08	1LM.LM05130	09/01/10 03:45	01
47SB-A01 (4-6)	L10080750-01	1LM.LM05137	09/01/10 06:50	01
47SB-A03 (4-6)	L10080750-02	1LM.LM05138	09/01/10 07:17	01
47SB-A05 (4-6)	L10080750-03	1LM.LM05139	09/01/10 07:43	01
47SB-A09 (4-6)	L10080750-04	1LM.LM05140	09/01/10 08:10	01
47SB-C07 (4-6)	L10080750-05	1LM.LM05141	09/01/10 08:36	01
QCMRL	WG341406-09	1LM.LM05143	09/01/10 09:29	01
QCMRL	WG341406-10	1LM.LM05154	09/01/10 14:20	01

Report Name: BLANK_SUMMARY
PDF File ID: 1769539
Report generated 09/02/2010 14:53

Microbac®

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080750 Prep Date:08/31/10 14:15 Sample ID:WG341406-02
Instrument ID:LCMS1 Run Date:08/31/10 23:21 Prep Method:6850
File ID:1LM.LM05120 Analyst:N/A Method:6850
Workgroup (AAB#):WG341406 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-26-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.992	1.98	0.992	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1769540
02-SEP-2010 14:53

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080750 Run Date:08/31/2010 Sample ID:WG341406-03
Instrument ID:LCMS1 Run Time:23:47 Prep Method:6850
File ID:1LM.LM05121 Analyst:N/A Method:6850
Workgroup (AAB#):WG341406 Matrix:Soil Units:ug/kg
QC Key:STD Lot#:STD40906 Cal ID: LCMS1-26-AUG-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Perchlorate	1.98	2.04	103	80 - 120	

LCS - Modified 03/06/2008
PDF File ID:1769541
Report generated: 09/02/2010 14:53

Conductivity Probe Calibration Check:
WA21 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level:
10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG341406-01 MCT	10,180	
-02 BLK	7.3	
-03 LCS	7.7	
L10080749-04	6.1	
750-01	5.9	
-02	9.8	
-03	13.4	
-04	14.9	
-05	19.6	
845-01	306	
-02	265	
-03	218	
-04	267	
-05	120.4	
-06	47.8	
-07	162.3	
-08	153.2	
-09	78.1	
-10 RS	76.9	
-11 MS	59.7	
-12 SD	56.9	

ADC
Analyst

9-1-10
Date/Time

DCN#84265

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080750

09/08/10 15:26

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47SB-A01 (4-6)	L10080750-01	D2216-90	1	27-AUG-10
47SB-A03 (4-6)	L10080750-02	D2216-90	1	27-AUG-10
47SB-A05 (4-6)	L10080750-03	D2216-90	1	27-AUG-10
47SB-A09 (4-6)	L10080750-04	D2216-90	1	27-AUG-10
47SB-C07 (4-6)	L10080750-05	D2216-90	1	27-AUG-10

Microbac Laboratories Inc.

Report Number: L10080750
Report Date : September 8, 2010

Sample Number: L10080750-01
Client ID: 47SB-A01 (4-6)
Matrix: Soil
Workgroup Number: WG341437
Collect Date: 08/24/2010 14:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL013
Prep Date: 09/01/2010 08:29
Cal Date:
Run Date: 09/01/2010 08:29
File ID: B13.341437-0102

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	93.4		1.00	1.00

Microbac

Report Number: L10080750
Report Date : September 8, 2010

Sample Number: L10080750-02
Client ID: 47SB-A03 (4-6)
Matrix: Soil
Workgroup Number: WG341437
Collect Date: 08/24/2010 14:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL013
Prep Date: 09/01/2010 08:29
Cal Date:
Run Date: 09/01/2010 08:29
File ID: B13.341437-0103

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	87.9		1.00	1.00

Report Number: **L10080750**

Report Date : **September 8, 2010**

Sample Number: **L10080750-03**
Client ID: **47SB-A05 (4-6)**
Matrix: **Soil**
Workgroup Number: **WG341437**
Collect Date: **08/25/2010 14:45**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **D2216-90**
Analytical Method: **D2216-90**
Analyst: **JDH**
Dilution: **1**
Units: **weight %**

Instrument: **BAL013**
Prep Date: **09/01/2010 08:29**
Cal Date:
Run Date: **09/01/2010 08:29**
File ID: **B13.341437-0104**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	91.4		1.00	1.00

Report Number: **L10080750**

Report Date : **September 8, 2010**

Sample Number:	L10080750-04	PrePrep Method:	NONE	Instrument:	BAL013
Client ID:	47SB-A09 (4-6)	Prep Method:	D2216-90	Prep Date:	09/01/2010 08:29
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG341437	Analyst:	JDH	Run Date:	09/01/2010 08:29
Collect Date:	08/25/2010 16:20	Dilution:	1	File ID:	B13.341437-0105
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	93.0		1.00	1.00

Report Number: L10080750

Report Date : September 8, 2010

Sample Number:	L10080750-05	PrePrep Method:	NONE	Instrument:	BAL013
Client ID:	47SB-C07 (4-6)	Prep Method:	D2216-90	Prep Date:	09/01/2010 08:29
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG341437	Analyst:	JDH	Run Date:	09/01/2010 08:29
Collect Date:	08/25/2010 15:25	Dilution:	1	File ID:	B13.341437-0106
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	82.2		1.00	1.00

00105220

Validation Qualifier Data Entry Verification

Run Date: September 15, 2010

Longhorn Army Ammunition Pl

Sample Number:	Analytical Method:	Extraction Method:	Flt	REX	Dil:	Parameter:	Result:	Units:	Qlfr:	Hit	Use	BCF	Val Qlfr	Val Code:	Reason Codes 1	2	3	4	Lab Sample:	Analysis Time:
47SB-C09(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	84.8	Percent		Y	Y								L10080792-01	08:35
	SW6850	NONE	N	0	1	PERCHLORATE	3.36	ug/kg		Y	Y		JI	M					L10080792-01	02:38
47SB-C11(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	83.3	Percent		Y	Y								L10080792-04	08:35
	SW6850	NONE	N	0	1000	PERCHLORATE	3550	ug/kg		Y	Y								L10080792-04	18:56
47SB-E07(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	86.8	Percent		Y	Y								L10080792-07	08:35
	SW6850	NONE	N	0	1	PERCHLORATE	1.14	ug/kg	U	N	Y		U						L10080792-07	07:55
47SB-E09(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	82.5	Percent		Y	Y								L10080792-10	08:35
	SW6850	NONE	N	0	1	PERCHLORATE	1.17	ug/kg	U	N	Y		U						L10080792-10	09:14
47SB-G05(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	79.7	Percent		Y	Y								L10080792-11	08:35
	SW6850	NONE	N	0	1	PERCHLORATE	1.21	ug/kg	U	N	Y		U						L10080792-11	09:41
47SB-G07(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	83.4	Percent		Y	Y								L10080792-12	08:35
	SW6850	NONE	N	0	1	PERCHLORATE	1.18	ug/kg	U	N	Y		U						L10080792-12	10:07
47SB-I05(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	89.2	Percent		Y	Y								L10080792-16	08:35
	SW6850	NONE	N	0	1	PERCHLORATE	1.08	ug/kg	U	N	Y		U						L10080792-16	13:12
47SB-I07(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	84.4	Percent		Y	Y								L10080792-19	08:35
	SW6850	NONE	N	0	100	PERCHLORATE	1200	ug/kg		Y	Y								L10080792-19	21:08
47SB-K03(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	81.5	Percent		Y	Y								L10080792-13	08:35
	SW6850	NONE	N	0	100	PERCHLORATE	2290	ug/kg		Y	Y								L10080792-13	20:15
47SB-K05(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	83.2	Percent		Y	Y								L10080792-14	08:35
	SW6850	NONE	N	0	10	PERCHLORATE	573	ug/kg		Y	Y								L10080792-14	20:42
47SB-K07(GWVZ)	D2216	NONE	N	0	1	PERCENT SOLIDS	82.3	Percent		Y	Y								L10080792-15	08:35
	SW6850	NONE	N	0	1	PERCHLORATE	9.03	ug/kg		Y	Y								L10080792-15	12:46

LHAAP-47
(0826)
JL
JK
09/15/10

L100807 92 00105221

COC NO. LHAAP47-082010-1

Shaw Environmental & Infrastructure, Inc.
1401 Enclave Parkway, Suite 250
Houston, TX 77077
(281) 531-3100

Lab Name: Environmental Waste Solutions C/O Microbac
Address : 158 Starlite Drive, Marietta OH 45750
Contact : Stephanie Mossburg
Phone: 1-800-373-4071

PM: Praveen Srivastav (281.531.3188) TAT: 24 HR RUSH
Project Contact: Jen Hoang Phone No: 281-531-3108
Project Name: LHAAP Site: SITE 47
Project #: 117591-009A130 Location: Karnack, TX

Sampler Print: Allen Willmore (713.247.9292) Susan Oller (281.989.3544)
Sampler Sign:

Sample Number	Grab	Date	Time	Matrix	# Of Containers	Perchlorate (6850)-28day HT										Comments
47SB-C09(GW/VZ)	x	08/26/2010	0755	Soil	1	X										MS / MSD
47SB-C11(GW/VZ)	x	08/26/2010	0844	Soil	1	X										MS / MSD
47SB-E07(GW/VZ)	x	08/26/2010	0945	Soil	1	X										MS / MSD
47SB-E09(GW/VZ)	x	08/26/2010	0925	Soil	1	X										MS / MSD
47SB-G05(GW/VZ)	x	08/26/2010	1245	Soil	1	X										
47SB-G07(GW/VZ)	x	08/26/2010	1015	Soil	1	X										
47SB-K03(GW/VZ)	x	08/26/2010	1435	Soil	1	X										
47SB-K05(GW/VZ)	x	08/26/2010	1525	Soil	1	X										
47SB-K07(GW/VZ)	x	08/26/2010	1600	Soil	1	X										
47SB-I05(GW/VZ)	x	08/26/2010	1325	Soil	1	X										MS / MSD
47SB-I07(GW/VZ)	x	08/26/2010	1110	Soil	1	X										

Relinquished By: Date/Time 8/27/10 1700
Received By: Date/Time
Special Instructions: 24 HR TAT DUE WEDN. 08/25/2010 BY 9AM

Relinquished By: Date/Time
Received for Laboratory By: Date/Time
Remarks:

Microbac OVD 221000008548
Received: 08/28/2010 10:32
By: BRENDA GREENWALT
Brenda Greenwalt

COOLER INSPECTION

Microbac®

Received: 08/28/2010 10:32
Delivery Method: UPS
Opened By: Brenda Greenwalt
Comments:

Login(s): L10080792|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0011156	H	6.0	1Z66V7254496289343	LHAAP47-082010-1	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	No	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	NA	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	NA	Were VOA samples free of headspace (less than 6mm)?

Discrepancies:

6 Rec'd 2 samples not on COC. 47SB-E09(GW/VZ)@0925MS and MSD. Logged per bottles and ID/date/time of Parent sample. JKT

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080792
Account: 2773
Project: 2773.025
Samples: 21
Due Date: 31-AUG-2010

Samplenum	Container ID	Products
L10080792-01	732099	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:42	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-01	732132	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

Samplenum	Container ID	Products
L10080792-02	732100	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:42	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-02	732133	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080792
Account: 2773
Project: 2773.025
Samples: 21
Due Date: 31-AUG-2010

Samplenum	Container ID	Products
L10080792-03	732101	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:42	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-03	732134	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

Samplenum	Container ID	Products
L10080792-04	732102	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:43	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-04	732135	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080792
Account: 2773
Project: 2773.025
Samples: 21
Due Date: 31-AUG-2010

Samplenum	Container ID	Products
L10080792-05	732103	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:43	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-05	732136	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

Samplenum	Container ID	Products
L10080792-06	732104	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:43	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-06	732137	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080792
Account: 2773
Project: 2773.025
Samples: 21
Due Date: 31-AUG-2010

Samplenum	Container ID	Products
L10080792-07	732105	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:43	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-07	732138	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

Samplenum	Container ID	Products
L10080792-08	732106	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:43	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-08	732139	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080792
Account: 2773
Project: 2773.025
Samples: 21
Due Date: 31-AUG-2010

Samplenum	Container ID	Products
L10080792-09	732107	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:43	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-09	732140	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

Samplenum	Container ID	Products
L10080792-10	732108	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	

Samplenum	Container ID	Products
L10080792-10	732141	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
3	STORE	SEM	W1	30-AUG-2010 15:43	JKT	WTD
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080792
Account: 2773
Project: 2773.025
Samples: 21
Due Date: 31-AUG-2010

Samplenum	Container ID	Products
L10080792-11	732109	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:43	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-11	732142	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

Samplenum	Container ID	Products
L10080792-12	732110	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:43	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-12	732143	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080792
Account: 2773
Project: 2773.025
Samples: 21
Due Date: 31-AUG-2010

Samplenum	Container ID	Products
L10080792-13	732111	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:42	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-13	732144	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

Samplenum	Container ID	Products
L10080792-14	732112	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:42	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-14	732145	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080792
Account: 2773
Project: 2773.025
Samples: 21
Due Date: 31-AUG-2010

Samplenum	Container ID	Products
L10080792-15	732113	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:42	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-15	732146	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

Samplenum	Container ID	Products
L10080792-16	732114	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:42	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-16	732147	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080792
Account: 2773
Project: 2773.025
Samples: 21
Due Date: 31-AUG-2010

Samplenum **Container ID** **Products**
L10080792-17 732115

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:42	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum **Container ID** **Products**
L10080792-17 732148 6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

Samplenum **Container ID** **Products**
L10080792-18 732116

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:42	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum **Container ID** **Products**
L10080792-18 732149 6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L10080792
Account: 2773
Project: 2773.025
Samples: 21
Due Date: 31-AUG-2010

Samplenum	Container ID	Products
L10080792-19	732117	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 11:54	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
Comments:Products cancelled.						
3	STORE	SEM	W1	30-AUG-2010 15:42	JKT	WTD
Comments:Products cancelled.						
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH
Comments:Products cancelled.						

Samplenum	Container ID	Products
L10080792-19	732150	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	

Samplenum	Container ID	Products
L10080792-20	732151	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
3	STORE	SEM	W1	30-AUG-2010 15:42	JKT	WTD
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH

Samplenum	Container ID	Products
L10080792-21	732152	6850 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-AUG-2010 12:11	JKT	
2	ANALYZ	W1	SEM	30-AUG-2010 13:45	WTD	JKT
3	STORE	SEM	W1	30-AUG-2010 15:42	JKT	WTD
4	STORE	W1	A1	31-AUG-2010 08:26	JKT	JDH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

NELAP Addendum - May 28, 2010

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO4)
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO3)
Perchlorate (6850 – LCMS)
Hexamethylphosphoramide (XMPA-LCMS)
Thiodiglycol (TDG-LCMS)
1,4-Dioxane – 8270C (827-DIOXANE)
Phosphorus – 6010B
Zirconium - 6010B

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
2, 3, 4, 6-Tetrachlorophenol
2-Chloronaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropyl ether
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID**

Isobutane
n-Butane
Propane
Propylene
Propyne

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV **

Nitroguanidine

OVL KNITRO-C-S/UV-VIS**

OVL MSS0I/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene

Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

OVL MSS04/GC-MS

Atrazine
Bolstar (Sulprofos)
Chlorpyrifos
Diazinon
Ethoprop
Merphos
Ronnel
Simazine
Tokuthion (Prothiophos)
Trichloronate

OVL MSV0I/GC-MS

1.3-Butadiene
alpha-Methylstyrene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Isopropylether
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

2.1.1 LC/MS Data (6850)

2.1.1.1 Summary Data

LABORATORY REPORT

L10080792

09/08/10 15:25

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	QC Type	Lab ID	Method	Dilution	Date Received
47SB-C09 (GW/VZ)		L10080792-01	6850	1	28-AUG-10
47SB-C09 (GW/VZ)	MS	L10080792-02	6850	1	28-AUG-10
47SB-C09 (GW/VZ)	MSD	L10080792-03	6850	1	28-AUG-10
47SB-C11 (GW/VZ)		L10080792-04	6850	1000	28-AUG-10
47SB-C11 (GW/VZ)	MS	L10080792-05	6850	1000	28-AUG-10
47SB-C11 (GW/VZ)	MSD	L10080792-06	6850	1000	28-AUG-10
47SB-E07 (GW/VZ)		L10080792-07	6850	1	28-AUG-10
47SB-E07 (GW/VZ)	MS	L10080792-08	6850	1	28-AUG-10
47SB-E07 (GW/VZ)	MSD	L10080792-09	6850	1	28-AUG-10
47SB-E09 (GW/VZ)		L10080792-10	6850	1	28-AUG-10
47SB-G05 (GW/VZ)		L10080792-11	6850	1	28-AUG-10
47SB-G07 (GW/VZ)		L10080792-12	6850	1	28-AUG-10
47SB-K03 (GW/VZ)		L10080792-13	6850	100	28-AUG-10
47SB-K05 (GW/VZ)		L10080792-14	6850	10	28-AUG-10
47SB-K07 (GW/VZ)		L10080792-15	6850	1	28-AUG-10
47SB-I05 (GW/VZ)		L10080792-16	6850	1	28-AUG-10
47SB-I05 (GW/VZ)	MS	L10080792-17	6850	1	28-AUG-10
47SB-I05 (GW/VZ)	MSD	L10080792-18	6850	1	28-AUG-10
47SB-I07 (GW/VZ)		L10080792-19	6850	100	28-AUG-10
47SB-E09 (GW/VZ)	MS	L10080792-20	6850	1	28-AUG-10
47SB-E09 (GW/VZ)	MSD	L10080792-21	6850	1	28-AUG-10

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

(9.11)

Sample Number: L10080792-01
Client ID: 47SB-C09 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341280
Collect Date: 08/26/2010 07:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:57
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 02:38
File ID: 1LM.LM05073
Percent Solid: 84.8

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	3.36		2.30	1.15

JI-M

"M" => MS/MSD outside control

9/9/10

Microbac

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-02
Client ID: 47SB-C09 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341280
Collect Date: 08/26/2010 07:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:57
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 03:05
File ID: 1LM.LM05074
Percent Solid: 84.8

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	5.02		2.30	1.15

9/10/10

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

(9.11) MSD

Sample Number: L10080792-03
Client ID: 47SB-C09 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341280
Collect Date: 08/26/2010 07:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: WTD
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:57
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 03:31
File ID: 1LM.LM05075
Percent Solid: 84.8

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	4.38		2.31	1.15

9/10/10

Microbac

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

(12.5-13.5)

Sample Number: L10080792-04
Client ID: 47SB-C11 (GW/VS)
Matrix: Soil
Workgroup Number: WG341280
Collect Date: 08/26/2010 08:44
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1000
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:57
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 18:56
File ID: 1LM.LM05110
Percent Solid: 83.3

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	3550		2360	1180

9/10/10

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

12.5, 17.5

Sample Number: L10080792-04
Client ID: 47SB-C11 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341280
Collect Date: 08/26/2010 08:44
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1000
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:57
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 18:56
File ID: 1LM.LM05110
Percent Solid: 83.3

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	3550		2360	1180

4/4 10RD

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-05
Client ID: 47SB-C11 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341280
Collect Date: 08/26/2010 08:44
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1000
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:57
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 19:23
File ID: 1LM.LM05111
Percent Solid: 83.3

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	3260		2350	1170

9/10/10

Report Number: L10080792

Report Date : September 8, 2010

M50

Sample Number:	L10080792-06	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47SB-C11 (GW/VZ)	Prep Method:	6850	Prep Date:	08/30/2010 16:57
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/26/2010 21:10
Workgroup Number:	WG341280	Analyst:	N/A	Run Date:	08/31/2010 19:49
Collect Date:	08/26/2010 08:44	Dilution:	1000	File ID:	1LM.LM05112
Sample Tag:	DL01	Units:	ug/kg	Percent Solid:	83.3

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	4080		2360	1180

9/10/10

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

(4.6)

Sample Number:L10080792-07
Client ID:47SB-E07 (GW/VZ)
Matrix:Soil
Workgroup Number:WG341298
Collect Date:08/26/2010 09:45
Sample Tag:01

PrePrep Method:NONE
Prep Method:6850
Analytical Method:6850
Analyst:N/A
Dilution:1
Units:ug/kg

Instrument:LCMS1
Prep Date:08/30/2010 16:50
Cal Date:08/26/2010 21:10
Run Date:08/31/2010 07:55
File ID:1LM.LM05085
Percent Solid:86.8

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.28	1.14

U Not detected at or above adjusted sample detection limit

9/10/10

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-08
Client ID: 47SB-E07 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341298
Collect Date: 08/26/2010 09:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:50
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 08:21
File ID: 1LM.LM05086
Percent Solid: 86.8

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	2.03	J	2.25	1.12

J The analyte was positively identified, but the quantitation was below the RL

09/10/10

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-09
Client ID: 47SB-E07 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341298
Collect Date: 08/26/2010 09:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:50
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 08:48
File ID: 1LM.LM05087
Percent Solid: 86.8

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	2.22	J	2.27	1.14

J The analyte was positively identified, but the quantitation was below the RL

9/10/10

Report Number: L10080792
Report Date : September 8, 2010

(11.12)

Sample Number: L10080792-10
Client ID: 47SB-E09 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341298
Collect Date: 08/26/2010 09:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:50
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 09:14
File ID: 1LM.LM05088
Percent Solid: 82.5

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.35	1.17

U Not detected at or above adjusted sample detection limit

9/9/10

Report Number: L10080792
Report Date : September 8, 2010

(11-12)

Sample Number: L10080792-11
Client ID: 47SB-G05 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341298
Collect Date: 08/26/2010 12:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:50
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 09:41
File ID: 1LM.LM05089
Percent Solid: 79.7

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.43	1.21

U Not detected at or above adjusted sample detection limit

9/10/10

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

(14.15)

Sample Number: L10080792-12
Client ID: 47SB-G07 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341298
Collect Date: 08/26/2010 10:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:50
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 10:07
File ID: 1LM.LM05090
Percent Solid: 83.4

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.36	1.18

U Not detected at or above adjusted sample detection limit

9/10/10

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

(20.5-21.5)

Sample Number: L10080792-13
Client ID: 47SB-K03 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341298
Collect Date: 08/26/2010 14:35
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 100
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:50
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 20:15
File ID: 1LM.LM05113
Percent Solid: 81.5

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	2290		243	121

09/09/10

Microbac

Micropac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

(21.5, 22.5)

Sample Number: L10080792-14
Client ID: 47SB-K05 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341298
Collect Date: 08/26/2010 15:25
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 10
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:50
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 20:42
File ID: 1LM.LM05114
Percent Solid: 83.2

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	573		23.6	11.8

9/10/10

Microbac

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

(18-19)

Sample Number: L10080792-15
Client ID: 47SB-K07 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341298
Collect Date: 08/26/2010 16:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:50
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 12:46
File ID: 1LM.LM05096
Percent Solid: 82.3

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	9.03		2.36	1.18

9/9/10

Microbac

Microbac Laboratories Inc.

Report Number: L10080792

Report Date : September 8, 2010

(9/10)

Sample Number: L10080792-16
Client ID: 47SB-I05 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341298
Collect Date: 08/26/2010 13:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:50
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 13:12
File ID: 1LM.LM05097
Percent Solid: 89.2

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0		U	2.17	1.08

U Not detected at or above adjusted sample detection limit

9/10/10

Microbac

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-17
Client ID: 47SB-I05 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341298
Collect Date: 08/26/2010 13:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:50
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 13:39
File ID: 1LM.LM05098
Percent Solid: 89.2

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	2.91		2.22	1.11

9/1/10

Micropac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

MSD

Sample Number: L10080792-18
Client ID: 47SB-I05 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341298
Collect Date: 08/26/2010 13:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:50
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 14:05
File ID: 1LM.LM05099
Percent Solid: 89.2

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	6.85		2.21	1.10

9/10/10

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

(13.5-14.5)

Sample Number: L10080792-19
Client ID: 47SB-I07 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341298
Collect Date: 08/26/2010 11:10
Sample Tag: DL01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 100
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:50
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 21:08
File ID: ILM.LM05115
Percent Solid: 84.4

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	1200		234	117

9/10/10

Microbac Laboratories Inc.

Report Number: L10080792

Report Date : September 8, 2010

Sample Number:	L10080792-20	PrePrep Method:	NONE	Instrument:	LCMS1
Client ID:	47SB-E09 (GW/VZ)	Prep Method:	6850	Prep Date:	08/30/2010 16:50
Matrix:	Soil	Analytical Method:	6850	Cal Date:	08/26/2010 21:10
Workgroup Number:	WG341298	Analyst:	N/A	Run Date:	08/31/2010 14:58
Collect Date:	08/26/2010 09:25	Dilution:	1	File ID:	1LM.LM05101
Sample Tag:	01	Units:	ug/kg	Percent Solid:	82.5

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	2.48		2.37	1.19

09/10/10

Microbac

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-21
Client ID: 47SB-E09 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341298
Collect Date: 08/26/2010 09:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 6850
Analytical Method: 6850
Analyst: N/A
Dilution: 1
Units: ug/kg

Instrument: LCMS1
Prep Date: 08/30/2010 16:50
Cal Date: 08/26/2010 21:10
Run Date: 08/31/2010 15:24
File ID: 1LM.LM05102
Percent Solid: 82.5

Analyte	CAS. Number	Result	Qual	PQL	SDL
Perchlorate	14797-73-0	4.71		2.33	1.17

09/10/10

2.1.1.2 QC Summary Data

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080792
Blank File ID: 1LM.LM05056
Prep Date: 08/30/10 16:57
Analyzed Date: 08/30/10 19:09
Analyst: WTD

Work Group: WG341280
Blank Sample ID: WG341280-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG341280-16	1LM.LM05054	08/30/10 17:50	01
MCT	WG341280-01	1LM.LM05055	08/30/10 18:43	01
LCS	WG341280-03	1LM.LM05057	08/30/10 19:36	01
QCMRL	WG341280-17	1LM.LM05066	08/30/10 23:33	01
47SB-C09 (GW/VZ)	L10080792-01	1LM.LM05073	08/31/10 02:38	01
47SB-C09 (GW/VZ)	L10080792-02	1LM.LM05074	08/31/10 03:05	01
47SB-C09 (GW/VZ)	L10080792-03	1LM.LM05075	08/31/10 03:31	01
QCMRL	WG341280-18	1LM.LM05079	08/31/10 05:17	01
QCMRL	WG341280-19	1LM.LM05092	08/31/10 11:00	01
QCMRL	WG341280-19	1LM.LM05104	08/31/10 16:17	02
47SB-C11 (GW/VZ)	L10080792-04	1LM.LM05110	08/31/10 18:56	DL01
47SB-C11 (GW/VZ)	L10080792-05	1LM.LM05111	08/31/10 19:23	DL01
47SB-C11 (GW/VZ)	L10080792-06	1LM.LM05112	08/31/10 19:49	DL01
QCMRL	WG341280-20	1LM.LM05117	08/31/10 22:01	01
QCMRL	WG341280-21	1LM.LM05143	09/01/10 09:29	01
QCMRL	WG341280-22	1LM.LM05154	09/01/10 14:20	01

Report Name: BLANK_SUMMARY
PDF File ID: 1769495
Report generated 09/02/2010 14:43

Microbac

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L10080792
Blank File ID: 1LM.LM05083
Prep Date: 08/30/10 16:50
Analyzed Date: 08/31/10 07:02
Analyst: N/A

Work Group: WG341298
Blank Sample ID: WG341298-02
Instrument ID: LCMS1
Method: 6850

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG341298-13	1LM.LM05079	08/31/10 05:17	01
MCT	WG341298-01	1LM.LM05082	08/31/10 06:36	01
LCS	WG341298-03	1LM.LM05084	08/31/10 07:29	01
47SB-E07 (GW/VZ)	L10080792-07	1LM.LM05085	08/31/10 07:55	01
47SB-E07 (GW/VZ)	L10080792-08	1LM.LM05086	08/31/10 08:21	01
47SB-E07 (GW/VZ)	L10080792-09	1LM.LM05087	08/31/10 08:48	01
47SB-E09 (GW/VZ)	L10080792-10	1LM.LM05088	08/31/10 09:14	01
47SB-G05 (GW/VZ)	L10080792-11	1LM.LM05089	08/31/10 09:41	01
47SB-G07 (GW/VZ)	L10080792-12	1LM.LM05090	08/31/10 10:07	01
QCMRL	WG341298-14	1LM.LM05092	08/31/10 11:00	01
47SB-K07 (GW/VZ)	L10080792-15	1LM.LM05096	08/31/10 12:46	01
47SB-I05 (GW/VZ)	L10080792-16	1LM.LM05097	08/31/10 13:12	01
47SB-I05 (GW/VZ)	L10080792-17	1LM.LM05098	08/31/10 13:39	01
47SB-I05 (GW/VZ)	L10080792-18	1LM.LM05099	08/31/10 14:05	01
47SB-E09 (GW/VZ)	L10080792-20	1LM.LM05101	08/31/10 14:58	01
47SB-E09 (GW/VZ)	L10080792-21	1LM.LM05102	08/31/10 15:24	01
QCMRL	WG341298-15	1LM.LM05104	08/31/10 16:17	01
47SB-K03 (GW/VZ)	L10080792-13	1LM.LM05113	08/31/10 20:15	DL01
47SB-K05 (GW/VZ)	L10080792-14	1LM.LM05114	08/31/10 20:42	DL01
47SB-I07 (GW/VZ)	L10080792-19	1LM.LM05115	08/31/10 21:08	DL01
QCMRL	WG341298-16	1LM.LM05117	08/31/10 22:01	01

Report Name: BLANK_SUMMARY
PDF File ID: 1769495
Report generated 09/02/2010 14:43

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080792 Prep Date:08/30/10 16:57 Sample ID:WG341280-02
Instrument ID:LCMS1 Run Date:08/30/10 19:09 Prep Method:6850
File ID:1LM.LM05056 Analyst:WTD Method:6850
Workgroup (AAB#):WG341280 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-26-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.985	1.97	0.985	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1769496
02-SEP-2010 14:43

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L10080792 Prep Date:08/30/10 16:50 Sample ID:WG341298-02
Instrument ID:LCMS1 Run Date:08/31/10 07:02 Prep Method:6850
File ID:1LM.LM05083 Analyst:N/A Method:6850
Workgroup (AAB#):WG341298 Matrix:Soil Units:ug/kg
Contract #:DACA56-94-D-0020 Cal ID: LCMS1-26-AUG-10

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Perchlorate	0.995	1.99	0.995	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1769496
02-SEP-2010 14:43

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10080792 Run Date: 08/30/2010 Sample ID: WG341280-03
Instrument ID: LCMS1 Run Time: 19:36 Prep Method: 6850
File ID: 1LM.LM05057 Analyst: WTD Method: 6850
Workgroup (AAB#): WG341280 Matrix: Soil Units: ug/kg
QC Key: STD Lot#: STD40906 Cal ID: LCMS1-26-AUG-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Perchlorate	1.99	1.91	96.0	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 1769497
Report generated: 09/02/2010 14:43

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number:L10080792 Run Date:08/31/2010 Sample ID:WG341298-03
Instrument ID:LCMS1 Run Time:07:29 Prep Method:6850
File ID:1LM.LM05084 Analyst:N/A Method:6850
Workgroup (AAB#):WG341298 Matrix:Soil Units:ug/kg
QC Key:STD Lot#:STD40906 Cal ID: LCMS1-26-AUG-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Perchlorate	2.00	2.11	106	80 - 120	

LCS - Modified 03/06/2008
PDF File ID:1769497
Report generated: 09/02/2010 14:43

Microbac

Conductivity Probe Calibration Check: 1406 /1410 µs/cm

Perchlorate Conductivity Check

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WB341298-01 MCT	10,270	NA
-02 BLK	12.3	
-03 LCS	14.2	
L10080792-07	5.2	
-08	4.5	
-09	4.4	
-10	8.8	
-11	4.8	
-12	7.8	
-13	7.8	
-14	9.4	
-15	8.3	
-16	7.8	
-17	9.7	
-18	4.4	
-19	7.1	
-20	7.0	
-21	6.4	

Wade T. Doty
Analyst

08-31-10 / 09:15
Date/Time

DCN#84242

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L10080792 Cal ID: LCMS1- 26-AUG-10 Worknum:WG341280
Instrument ID:LCMS1 Contract #:DACA56-94-D-0020 Prep Method:6850
Parent ID:L10080792-01 File ID:1LM.LM05073 Dil:1 Method:6850
Sample ID:L10080792-02 MS File ID:1LM.LM05074 Dil:1 Matrix:Soil
Sample ID:L10080792-03 MSD File ID:1LM.LM05075 Dil:1 Units:ug/kg
Percent Solid:84.8

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Perchlorate	3.36	2.30	5.02	72	2.31	4.38	43.8	13.7	80 - 120	15	*

* FAILS %REC LIMIT

FAILS RPD LIMIT

60-140

4758-C09(9-11)

JI-M

MS_MSD - Modified 03/06/2008
PDF File ID: 1769498
Report generated 09/02/2010 14:43

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L10080792 Cal ID: LCMS1- 26-AUG-10 Worknum:WG341280
Instrument ID:LCMS1 Contract #:DACA56-94-D-0020 Prep Method:6850
Parent ID:L10080792-04 File ID:1LM.LM05110 Dil:1000 Method:6850
Sample ID:L10080792-05 MS File ID:1LM.LM05111 Dil:1000 Matrix:Soil
Sample ID:L10080792-06 MSD File ID:1LM.LM05112 Dil:1000 Units:ug/kg
Percent Solid:83.3

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Perchlorate	3550	2.35	3260	-12300	2.36	4080	22500	22.3	80 - 120	15	*#

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

No guide parent sample concentrations
> 4x.

MS_MSD - Modified 03/06/2008
PDF File ID:1769498
Report generated 09/02/2010 14:43

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L10080792 Cal ID: LCMS1- 26-AUG-10 Worknum:WG341298
Instrument ID:LCMS1 Contract #:DACA56-94-D-0020 Prep Method:6850
Parent ID:L10080792-07 File ID:1LM.LM05085 Dil:1 Method:6850
Sample ID:L10080792-08 MS File ID:1LM.LM05086 Dil:1 Matrix:Soil
Sample ID:L10080792-09 MSD File ID:1LM.LM05087 Dil:1 Units:ug/kg
Percent Solid:86.8

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Perchlorate	U	2.25	2.03	90.5	2.27	2.22	97.5	8.58	80 - 120	15	

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

47SB-607 (4-6)

✓ OK

MS_MSD - Modified 03/06/2008
PDF File ID: 1769498
Report generated 09/02/2010 14:43

Microbac

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L10080792 Cal ID: LCMS1- 26-AUG-10 Worknum:WG341298
Instrument ID:LCMS1 Contract #:DACA56-94-D-0020 Prep Method:6850
Parent ID:L10080792-10 File ID:1LM.LM05088 Dil:1 Method:6850
Sample ID:L10080792-20 MS File ID:1LM.LM05101 Dil:1 Matrix:Soil
Sample ID:L10080792-21 MSD File ID:1LM.LM05102 Dil:1 Units:ug/kg
Percent Solid:82.5

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Perchlorate	U	2.37	2.48	105	4.67	4.71	101	62.0	80 - 120	15	#

* FAILS %REC LIMIT

FAILS RPD LIMIT

4758-809 (11-12)

Please check spike amount

MS_MSD - Modified 03/06/2008
PDF File ID: 1769498
Report generated 09/02/2010 14:43

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L10080792 Cal ID: LCMS1- 26-AUG-10 Worknum:WG341298
Instrument ID:LCMS1 Contract #:DACA56-94-D-0020 Prep Method:6850
Parent ID:L10080792-16 File ID:1LM.LM05097 Dil:1 Method:6850
Sample ID:L10080792-17 MS File ID:1LM.LM05098 Dil:1 Matrix:Soil
Sample ID:L10080792-18 MSD File ID:1LM.LM05099 Dil:1 Units:ug/kg
Percent Solid:89.2

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Perchlorate	U	2.22	2.91	131	2.21	6.85	310	80.7	80 - 120	15	*#

* FAILS %REC LIMIT

\# FAILS RPD LIMIT

Samples ND No goals —

MS_MSD - Modified 03/06/2008
PDF File ID: 1769498
Report generated 09/02/2010 14:43

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L10080792

09/08/10 15:25

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: for Shaw E & I, Inc.
1401 Enclave Parkway
Suite 250
Houston, TX 77077
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

Sample Analysis Summary

Client ID	QC Type	Lab ID	Method	Dilution	Date Received
47SB-C09 (GW/VZ)		L10080792-01	D2216-90	1	28-AUG-10
47SB-C09 (GW/VZ)	MS	L10080792-02	D2216-90	1	28-AUG-10
47SB-C09 (GW/VZ)	MSD	L10080792-03	D2216-90	1	28-AUG-10
47SB-C11 (GW/VZ)		L10080792-04	D2216-90	1	28-AUG-10
47SB-C11 (GW/VZ)	MS	L10080792-05	D2216-90	1	28-AUG-10
47SB-C11 (GW/VZ)	MSD	L10080792-06	D2216-90	1	28-AUG-10
47SB-E07 (GW/VZ)		L10080792-07	D2216-90	1	28-AUG-10
47SB-E07 (GW/VZ)	MS	L10080792-08	D2216-90	1	28-AUG-10
47SB-E07 (GW/VZ)	MSD	L10080792-09	D2216-90	1	28-AUG-10
47SB-E09 (GW/VZ)		L10080792-10	D2216-90	1	28-AUG-10
47SB-G05 (GW/VZ)		L10080792-11	D2216-90	1	28-AUG-10
47SB-G07 (GW/VZ)		L10080792-12	D2216-90	1	28-AUG-10
47SB-K03 (GW/VZ)		L10080792-13	D2216-90	1	28-AUG-10
47SB-K05 (GW/VZ)		L10080792-14	D2216-90	1	28-AUG-10
47SB-K07 (GW/VZ)		L10080792-15	D2216-90	1	28-AUG-10
47SB-I05 (GW/VZ)		L10080792-16	D2216-90	1	28-AUG-10
47SB-I05 (GW/VZ)	MS	L10080792-17	D2216-90	1	28-AUG-10
47SB-I05 (GW/VZ)	MSD	L10080792-18	D2216-90	1	28-AUG-10
47SB-I07 (GW/VZ)		L10080792-19	D2216-90	1	28-AUG-10
47SB-E09 (GW/VZ)	MS	L10080792-20	D2216-90	1	28-AUG-10
47SB-E09 (GW/VZ)	MSD	L10080792-21	D2216-90	1	28-AUG-10

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-01
Client ID: 47SB-C09 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 07:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0109

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	84.8		1.00	1.00

Microbac

Report Number: L10080792

Report Date : September 8, 2010

Sample Number: L10080792-02
Client ID: 47SB-C09 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 07:55
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0110

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	84.8		1.00	1.00

Report Number: L10080792

Report Date : September 8, 2010

Sample Number:	L10080792-03	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	47SB-C09 (GW/VZ)	Prep Method:	D2216-90	Prep Date:	08/31/2010 08:35
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG341310	Analyst:	JDH	Run Date:	08/31/2010 08:35
Collect Date:	08/26/2010 07:55	Dilution:	1	File ID:	B1_341310-0111
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	84.8		1.00	1.00

Report Number: L10080792

Report Date : September 8, 2010

Sample Number: L10080792-04
Client ID: 47SB-C11 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 08:44
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0112

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	83.3		1.00	1.00

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-05
Client ID: 47SB-C11 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 08:44
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0113

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	83.3		1.00	1.00

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-06
Client ID: 47SB-C11 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 08:44
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0114

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	83.3		1.00	1.00

Report Number: **L10080792**

Report Date : **September 8, 2010**

Sample Number:	L10080792-07	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	47SB-E07 (GW/VZ)	Prep Method:	D2216-90	Prep Date:	08/31/2010 08:35
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG341310	Analyst:	JDH	Run Date:	08/31/2010 08:35
Collect Date:	08/26/2010 09:45	Dilution:	1	File ID:	B1.341310-0115
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	86.8		1.00	1.00

MICROBAC LABORATORIES INC.

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-08
Client ID: 47SB-E07 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 09:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0116

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	86.8		1.00	1.00

Microbac

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-09
Client ID: 47SB-E07 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 09:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0117

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	86.8		1.00	1.00

Report Number: **L10080792**

Report Date : **September 8, 2010**

Sample Number:	L10080792-10	PrePrep Method:	NONE	Instrument:	BAL001
Client ID:	47SB-E09 (GW/VZ)	Prep Method:	D2216-90	Prep Date:	08/31/2010 08:35
Matrix:	Soil	Analytical Method:	D2216-90	Cal Date:	
Workgroup Number:	WG341310	Analyst:	JDH	Run Date:	08/31/2010 08:35
Collect Date:	08/26/2010 09:25	Dilution:	1	File ID:	B1.341310-0118
Sample Tag:	01	Units:	weight %		

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	82.5		1.00	1.00

Report Number: L10080792

Report Date : September 8, 2010

Sample Number: L10080792-11
Client ID: 47SB-G05 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 12:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0119

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	79.7		1.00	1.00

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-12
Client ID: 47SB-G07 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 10:15
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0120

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	83.4		1.00	1.00

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Report Number: L10080792

Report Date : September 8, 2010

Sample Number: L10080792-13
Client ID: 47SB-K03 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 14:35
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0121

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	81.5		1.00	1.00

Report Number: L10080792

Report Date : September 8, 2010

Sample Number: L10080792-14
Client ID: 47SB-K05 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 15:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0151

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	83.2		1.00	1.00

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-15
Client ID: 47SB-K07 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 16:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0152

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	82.3		1.00	1.00

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-16
Client ID: 47SB-I05 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 13:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0153

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	89.2		1.00	1.00

Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-17
Client ID: 47SB-I05 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 13:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0154

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	89.2		1.00	1.00

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Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-18
Client ID: 47SB-I05 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 13:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0155

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	89.2		1.00	1.00

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Microbac Laboratories Inc.

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-19
Client ID: 47SB-I07 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 11:10
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0156

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	84.4		1.00	1.00

Microbac

Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-20
Client ID: 47SB-E09 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 09:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0157

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	82.5		1.00	1.00

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Report Number: L10080792
Report Date : September 8, 2010

Sample Number: L10080792-21
Client ID: 47SB-E09 (GW/VZ)
Matrix: Soil
Workgroup Number: WG341310
Collect Date: 08/26/2010 09:25
Sample Tag: 01

PrePrep Method: NONE
Prep Method: D2216-90
Analytical Method: D2216-90
Analyst: JDH
Dilution: 1
Units: weight %

Instrument: BAL001
Prep Date: 08/31/2010 08:35
Cal Date:
Run Date: 08/31/2010 08:35
File ID: B1.341310-0158

Analyte	CAS. Number	Result	Qual	PQL	SDL
Percent Solids	10-02-6	82.5		1.00	1.00

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